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DCL-Human Resource Management

Submitted by

Sharif Ashik Ishtiaq

ID: 181-16-247

Supervised by

Abdullah Bin Kasem Bhuiyan

Lecturer (DIU)

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APPROVAL

This Project titled “**DCL-HRM**”, Submitted by **Sharif Ashik Ishtiak**, ID No: 181-16-247 to the Department of Computing & Information Systems, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computing & Information Systems and approved as to its style and contents. The presentation has been held on- 13-02-2022.

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Associate Professor and Head
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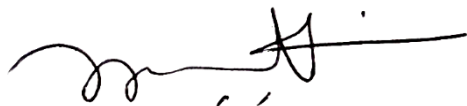
Ms. Nayeema Rahman
Sr. Lecturer
 Department of Computing & Information Systems
 Faculty of Science & Information Technology
 Daffodil International University

Internal Examiner



Mr. Abdullah Bin Kasem Bhuiyan
Lecturer
 Department of Computing & Information Systems
 Faculty of Science & Information Technology
 Daffodil International University

Internal Examiner



Dr. Mohammad Shorif Uddin
Professor
 Department of Computer Science and Engineering
 Jahangirnagar University, Savar, Dhaka

External Examiner

Declaration

I hereby declare that; this project has been done by me under supervision of **Mr. Abdullah Bin Kasem Bhuiyan, Lecturer**, Department of Computing and Information System (CIS) of Daffodil International University. I am also declaring that this project or any part of there has never been submitted anywhere else for the award of any educational degree like, B.Sc., M.Sc., Diploma or other qualifications.

Submitted By



Sharif Ashik Ishtiak
ID: 181-16-247
Department of CIS
Daffodil International University

Submitted To



Mr. Abdullah Bin Kasem Bhuiyan
Lecturer
Department of Computing & Information Systems
Faculty of Science & Information Technology
Daffodil International University

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Finally, I'd want to express my appreciation to everyone who has helped me, directly or indirectly, accomplish the project work.

Dedication

I an Sharif Ashik Ishtiak, officially certify that I finished the DCL-HRM project while being supervised by Md. Mazharul Islam, Project Manager of Daffodil Computers LTD (DCL). I further certify that this project has still not been submitted to other university / institution for the awarding of a degree or certificate.

Abstract

DCL-HRM offers a flexible human resource management system for small and medium sized organization , allowing organizations to manage the employee's personnel lifecycle, from onboarding to termination.

DCL-HRM contains a full suite of applications for HR management, including core administration, timesheet management, recruitment, performance evaluations, leave management and many more. DCL-HRM can be implemented on a local server or cloud, and it can satisfy the demands of businesses in various types of industries, including real estate, banking, pharmaceuticals, insurance, education, and others. It allows multiple groups of users to have different levels of system access and permissions. The PIM feature enables companies to record personnel information in a manner appropriate for auditing and reporting. It also includes capabilities for managing staff departures and keeping track of time off requests.

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Chapter 1 – Introduction

1.1 Introduction

Human Resource Management (HRM) is the organizational function in charge of managing the people in a company through recruitment, selection, performance management, learning and development, succession planning, and HR data analytics. The HR department of a company is critical to the growth of its bottom line and the success of its business plan. HRM encompasses all types of management choices and activities that impact the relationship between the business and its employees. HRM basically manages people to reach peak performance. It is about improving company performance through improved human resource management (Ichniowski, 2004). Companies tried to automate management for their employees in the 1970s. In the late 1980s, PeopleSoft was one of the first full HRMS systems. In the late 1990s internet brought the huge benefits of automation to even more HR processes. (Holliday, 2020).

HRMS is a computerized system for managing and optimizing a company's human resources that daily human resource tasks and overall HR goals. HR software enables HR professionals and managers to better allocate their time and resources to more productive and profitable endeavors. **DCL-HRM** may be used for candidate recruiting, payroll administration, leave authorization, succession planning, attendance tracking, career development, performance assessments, and overall management. t of an organization's personnel information. Employees can able to take certain clerical tasks pertaining to the input of their personal information, which puts time back of HR professionals. Employees are allowed to take on some clerical responsibilities related to the registration of own private details, which absolves extra time for HR specialists. **DCL-HRM** systems enable users to adapt their workflow to the demands of their company in order to get the optimal user experience.

1.2 Document Contents

Chapter 1: Introduction

Key project information that provides the reader with enough information to understand the project's aim and scope.

Chapter 2: Initial Phase

Project initiation would be the first step of the project life cycle and this stage determine whether or not the project is required. This chapter summarizes the Entire Proposal, Project Background, Problem Area, and Project Solutions.

Chapter 3: Literature Review

A literature review will show the comprehensive summary of important pieces and other materials on a specific topic. Scholarly journal articles, textbooks, report papers, Web portals and other sources may be included in the literature review.

Chapter 4: Methodology

This chapter describe project methodology, how this methodology will use, best methodology and implementation plan.

Chapter 5: Planning

Define Project Plan, Time Duration, WBS, Gantt Chart, Resource Analysis for proposed project.

Chapter 6: Feasibility

Various types of feasibility studies and cost analyses will be discussed in depth here.

Chapter 7: Foundation

This chapter will explain the problem area analysis, requirements list, proposed technology and justifications.

Chapter 8: Exploration

It shows the system activity diagram, each fetchers activity also use case diagram for better understanding of the system

Chapter 9: Engineering

The recommended system's database logical and behavioral modeling

Chapter 10: Deployment

Samples of Core Module Coding, Possible Problem Splitting, and Resource allocation While developing will all be covered in this section.

Chapter 11: Testing

This chapter will cover the system test plan, multiple test cases, and test results.

Chapter 12: Implementation

The implementation strategy, training approach and other associated issues are covered here.

Chapter 13: Observation and Critical Evaluation

This chapter evaluates the primary objectives that were achieved and those that were not achieved in details.

Chapter 14: Lessons Learned

This chapter explains what I learnt and the problems I faced while working on the project.

Chapter 15: Conclusion

The project summary, project goal and my experience all are documented here.

Chapter 2 - Initial Study

2.1 Background of the project

These days, organizations increasingly using technologies for several departments in order to achieve their end goals. Smart organizations don't have time to spend manually executing fundamental tasks or going through the same processes again and over. A HRMS software helps organization to focus on their core activities. Human resource management System saves time by helping automate simple processes such as leave allowance, requirements, and training. HRMS are more secure to keep company data (Manale, 2021).

A company manager uses HR software to develop employee's skills and progress their careers and track their performance. DCL-HRM allows employees to Manage their own data. It will support Better Compliance. HR employees can easily focus on the human Resources and helps to monitor leave and sickness more easily. DCL-HRM reduces a dependence on paper and manual processes.

2.2 Problem Area

HR management is growing more difficult as today's workforce becomes more dynamic and multicultural. Traditional human resource methods are no longer as useful. Because the unemployment rate is low, businesses must improve their human resource operations in order to recruit and keep skilled staff. In this day, A big organization faces some common Human Resource related problem. We can easily find this issues that are chiefly as:

Implementing an optimal onboarding process: According to a Gallup poll, just 12% of new workers believe that company has a proper onboarding procedure. Most onboarding programs last only 1 or 2 days and leaving them puzzled and frustrated.

Appropriate training opportunities: A company is probably knowing the challenges that come up with employee training and development initiatives. Picking the appropriate training subjects to meet the different necessities and benefits of today's

multigenerational workforce may be difficult. HR must provide sufficient time and resources to training initiatives. Staff may fail to notice or prioritize training initiatives if this is not done due of their hectic schedule.

Employee turnover: Among the most pressing concerns for human resource departments all across the world is employee turnover. From research, more than 51percentage points of American workers are considering switching jobs. Employees leave their job for a variety of reasons, the most common of which are a lack of career advancement, performance evaluation, and employee engagement. When workers leave a business, a significant amount of time and money must be spent on recruiting and training new staff. (ARUN, 2020).

HR administration work: Manually handle all HR activities may be difficult and time-consuming. Using spreadsheets to maintain employee timesheets is extremely cumbersome inconvenient. Manual activities lead mistakes, resulting in compliance difficulties. Manually keeping all employee data becomes difficult as organizations develop because it is difficult to modify which is often more prone to exploitation.

2.3 Possible solution

The entire recruitment process may be totally automated with HRMS software. An onboarding component may handle everything from generating offer letters to assigning desk spaces. The onboarding tool also ensures easy access to the procedure manuals, organizational rules and anything else you want. Several staff can be trained at the same time, saving time and money on these programs. Using HR Software, you can streamline the entire learning process. Training and development programs may be simplified across departments by using DCL-HRM. Employee engagement may be improved with DCL-HRM software features. For example, the onboarding function gives staff access to all of the information, services, and resources that are required for new recruits. Employee self-service portals helps staff to control and monitoring their own movements without depending on other human resources department. A quality supervision tool enables

employees to offer and accept feedback using techniques such as performance reviews, KRAs, and targets (Colrus, 2019).

By increasing the speed of HR procedures and improving the entire work environment, all functionaries may be totally automated. Manual work may be greatly reduced, and files can be quickly prepared and accessible. Investing in HRMS software will assist the organization in reaching its growth and development goals (ARUN, 2020).

Chapter 3 - Literature Review

A literature study is a section of a report that captures main sources on a specific subject and explains those sources in discussion with each other. An effective literature review evaluates, critically analyzes, and synthesizes sources to provide a clear overview of the current of knowledge on the subject. HRM is a time-consuming and labor-intensive activity. Most significant assets of a company are critical to manage and utilize resources as effectively as possible (McCombes, 2019).

In this article, I will look at some of the issues that organizations face and how HR management system provide better solutions

3.1 Analysis of the problem domain compared with previously published papers

HR departments must receive and manage a large quantity of data. When HR staff spend too much time on administrative chores, it is difficult to control productivity. Employees require access to information at all times and from any location. A strong HR platform need combines all management. Such as onboarding, benefits, payroll, and time off monitoring (University, 2021). Organizational change is not typically focus on HR training and career development. Organizational management creates a unique challenge for leadership and management. Leadership skills must be prioritized as a strategic goal. HR professionals are essential to provide the appropriate structures and processes for selecting and developing the organization's future leaders. HRM must be able to quantify outcomes in terms of transaction processing as well as the positive impact on the organization.

According to a survey, I released the following top 10 HRMS challenges:

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Change management	48%
Leadership development	35%
Effectiveness measurement	27%
Organizational effectiveness	25%
Compensation	24%
Recruitment and availability	24%
Succession planning	20%
Learning and development	19%
Retention	16%
Health & welfare	13%

Table 1: Table 1HRMS challenges Survey

3.2 Discussion of problem-solving techniques based on published papers

DCL-HRM gives the optimum ways and provided the appropriate answer to the demands of the company to administer.

Modern HRMS and Its significant role will be (Singh, 2018):

Organizational Management: HRMS may organize an enterprise by Employer, Place, Section, Labels, Worker Group, and Company Changes such as Retirement, Dismissal, Move, Promotions, and so on.

Security Control: HRMS also enables user security through the use of tasks management, user access, menu authentication, and other methods.

Time and Absence Management: HRMS includes an integrated attendance module, overtime, leave application and approval, manual approval, yearly and monthly leave processing, and so forth.

Employee information management: HRMS is used to store all a staff's information, such as worker leave details, training information, salary structure details, and so on.

Payroll Management: HRMS payroll management may construct up to N components, assigning a salary to numerous people based on a pay structure formula.

Recruitment or Staffing: Entry-level candidate information forms, advanced level candidate information forms, the entire recruiting cycle, and resource planning based on budget estimates.

3.3 Recommended approach

HRMS focuses on long-term solutions and people management solutions. It focuses actions in organizational growth, ensuring employee organizational fit and other factors that guarantee people create value. General management includes human resource management. Employee management is the responsibility of managers at all levels. It is necessary to treat individuals with dignity and respect. From the above discussion it is clear that a proper HRM software have to the required features. A HRM system should be provide following approach (Dixit, 2021):

- Document Management
- Applicant Tracking and Recruiting
- Employee Onboarding and Administration
- Performance Management
- Benefits Management
- Compensation Management
- Time and Attendance Management
- Learning and Professional Development
- Employee Engagement
- Employee Self Service

- Payroll Management
- Succession Management
- Reporting and Dashboard

Chapter 4 - Methodology

project methodology is a collection of concepts and techniques that help you to achieve the best performance of your project. It is a structure that allows you to manage your program as best as possible. Because of project management tools are so fundamental to businesses and teams. We need confirm that our project management approach is up to date that accurately mapped to your company, group type, project, and objectives. Many programmers found that traditional project management techniques were hampering their progress. Their performance and outcomes impact their performance and results. In this chapter, I will go through the methodologies, methodology selection and the recommended implementation strategy (Teamwork, 2020).

4.1 What to use

Several project management methodologies are available to choose from. Each methods have advantages and disadvantages. Some of them perform better on certain projects than others, so you'll have to study about project management approaches to figure out which one is for you. We'll touch some of the most common project management approaches, which are used in a variety of industries, including software development (Westland, 2021). In this section, I will explain three methodologies with their pros and cons.

4.1.1 Waterfall methodology

Waterfall approach is a well-known project management technique. The proposal's activities and phases are completed in a linear, sequential manner, and each step must be completed before moving on to the next. The waterfall software development life cycle, sometimes known as the waterfall SDLC is a popular method for managing software engineering projects (Leeron Hoory, 2021). The waterfall methodology is divided into seven different phases:

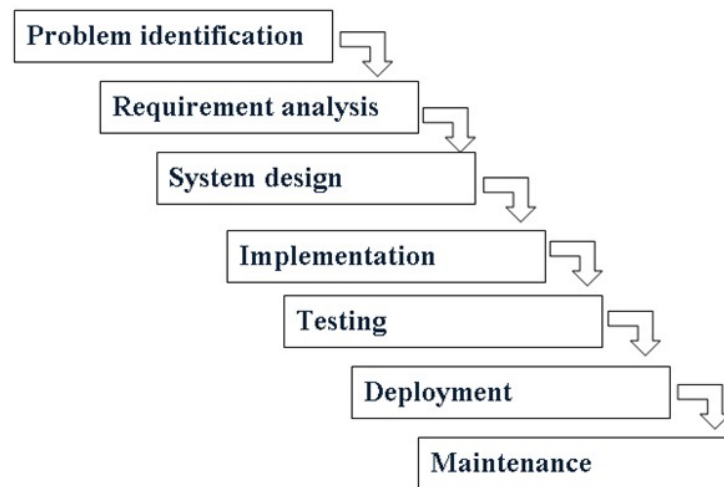


Figure 1: Waterfall Methodology

Pros of Waterfall Methodology

- ❖ Phases are processed and completed one at a time in this methodology.
- ❖ Forces is a well-structured and organized organization.
- ❖ Is easy to understand, manage, and organize activities.
- ❖ Allows for departmentalization and administrative control based on a timetable or deadline.
- ❖ It reinforces excellent coding habits such as defining before designing and then coding.
- ❖ Allows for easy early design or specification adjustments.
- ❖ Milestones and deadlines are clearly defined. (Lewis, 2017)

Cons Waterfall Methodology

- ❖ Once a program has entered the testing stage, it is quite tough to modify anything that was not well-thought.
- ❖ No functional software is built until late in the life cycle.
- ❖ There is a great deal of risk and confusion.
- ❖ It was not a suitable model for large, object-oriented programs.

- ❖ Improper model for long-term initiatives.
- ❖ Increase efficiency by avoiding process overlap. (Lewis, 2017)

4.1.2 Agile Methodology

The Agile methodology is one of the easiest and most successful processes for translating a vision for a business requirement into technology solutions. Agile is a concept used to characterize software development processes that include plan, training, development, team collaboration, evolutionary development, and early delivery. It enables adaptability responses to change. Concerned with the limits of project management techniques that cannot develop with the project, the focus started to turn to more dynamic policies. (Hamilton, 2021)

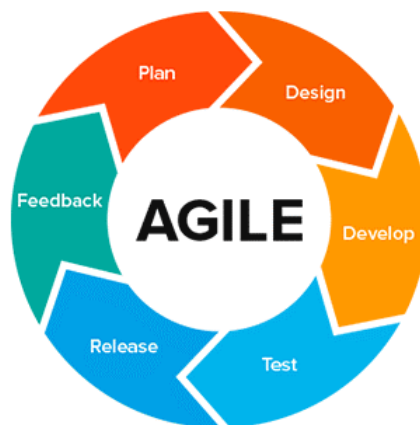


Figure 2: Agile Methodology

Pros of Agile Methodology

- ❖ Clients are pleased with the rapid and continuous development and delivery of appropriate software.
- ❖ The product is created rapidly and delivered on a constant basis.
- ❖ Facial expression communication is a powerful mode of communication.
- ❖ Business people and developers work together on a daily basis and in close partnership.

- ❖ Adapting to new conditions on a regular basis. (Olic, 2017)
- ❖ Even last-minute adjustments in specifications are accepted.
- ❖ You can test and experiment concepts, Because the prices are modest

Cons Agile Methodology

- ❖ It is effective for small development projects.
- ❖ Lack of concentration on required for design and documentation.
- ❖ During the meeting, an expert project member must make key decisions.
- ❖ Documentation is small in Agile methodologies.

4.1.3 Dynamic Systems Development Methodology (DSDM)

DSDM is the software development agile project delivery framework. The DSDM Agile Project Framework like many other agile project delivery methodologies, progressed from a software-specific answer to general project management tool (Boog, 2020). Due to DSDM's capacity to fulfill a wide range of agile demands, it was selected for fast increasing AgilePM (Agile Project Management).

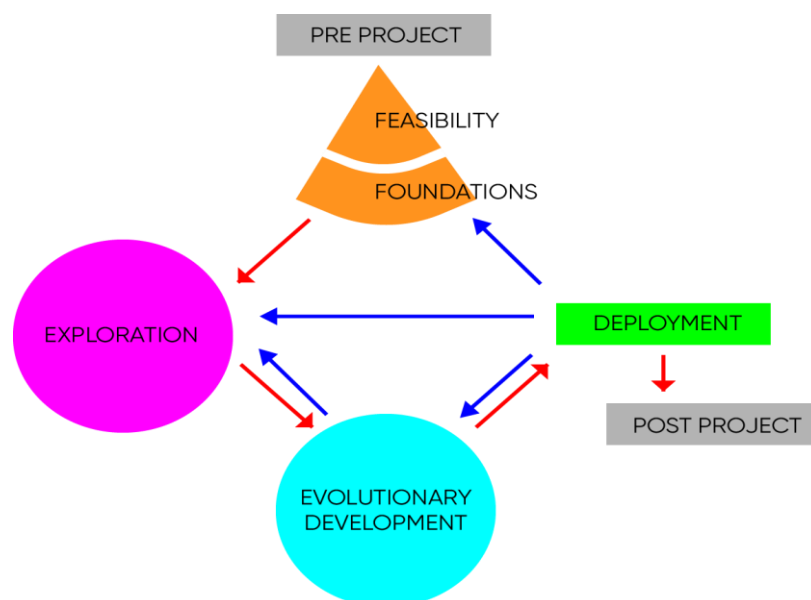


Figure 3: DSDM Methodology

Pros of DSDM Methodology

- ❖ You can complete tasks on schedule.
- ❖ Everyone can clearly comprehend how the project is progressing.
- ❖ The DSDM methodology concentrates business cases to guarantee that any actions performed have critical business value.
- ❖ Quickly implement product capability.
- ❖ Developers can quickly reach out to end consumers.
- ❖ It would be easier to keep the project on budget.
- ❖ Growth and development are accelerating.

Cons of Agile Methodology

- ❖ Due to the high cost of installation, small enterprises may find it challenging.
- ❖ DSDM does not foster developer creativity.
- ❖ If alternative technical options are available, projects must agree to a predetermined standard.

4.1.4 Choosing Methodology

There are several aspects that will determine which project management strategy is ideal for your project. group and organization. I choose DSDM methodology for the DCL-HRM project after considering cost and budget, team size, risk taking ability, flexibility, timeline, and client participation. In order to achieve faster product delivery then Improve the project development process. Improving user and stakeholder participation throughout the workflow ensure that high-quality work is completed on schedule.

4.2 Why to use

A Project Management Methodology is a method that raises the possibilities of project success by providing a clear direction. It saves a lot of time and enhancing the overall quality of deliverables. Most development project managers implement a technique that was either developed through years of experience. A typical advantage of a technique is that it assists in project management by lowering risks, increasing the chances of a project's success. Basically, methodology should include:

- Set of methods for managing projects.
- collection of capabilities for developing the necessary skills
- a set of tools, forms, and templates for standard information

4.3 Sections of methodology

The DSDM Lifecycle consists of six phases that are intended to take a DCL-HRM project from idea to execution. The iterative structure of DSDM allows business representatives to view the solution as it progresses, offer feedback, and ask modifications during the solution's development. One of the DSDM lifecycle concepts is "Focus on the Business Requirement," that begins in the pre-project phase and ensures that projects are associated with organizational goals. DSDM stages are described in the below, along with how they relate to one another.

Pre-Project Phase

Pre-Project phase ensure that projects are developed with a specific goal in mind. This stage would take place at the program or portfolio level. It serves as a type of entry point, ensuring that projects are ready to start based on the business goals.

Feasibility Phase

The Feasibility phase determines the proposed project is technically doable and consider to be cost-effective from a business standpoint. This is a high-level analysis of the technical requirements for the project and proposal.

Foundations Phase

The Foundations Phase described in the Project completion with a Delivery Plan. This phase establishes the project lifetime by determining how the DSDM method will be applied to the project's unique requirements.

Evolutionary Development Phase

This phase uses timeboxing to regulate iterations. Each iteration provides a finished component. MoSCoW prioritization used to prioritize the items throughout each timeboxed iteration.

Deployment Phase

The goal of this phase is to establish a baseline of the Evolving Solution into action. The deployed release may be the final solution or a portion of the final solution.

Post-Project Phase

After deployment a project, the post-Project phase evaluates how successfully the predicted business benefits were reached. The majority of the advantages will accumulate a predetermined duration of live usage of the solution. During Post-Project phase you would also conduct a development review. (RENDER, 2018)

4.4 Implementation plans

Users confirm that the prototypes meet the requirements. This section determines the release criteria, settings, and schedule. Implementation is completed, as well as training for future users to operate the program. Because everything was given in response to user demand, no additional work is necessary. The product will be ready for launch after this stage.

Chapter 5 - Planning

5.1 Project Plan

Project planning is more than just a stage in the project management process. It's one of the most important parts of the procedure. It improves project efficiency and success rates. A solid project plan makes tracking project goals and outcomes simple. A project management plan comprises all of your project's activity, tasks, and resources (Franks, 2021). This section will describe the project plan, including the Work Breakdown Structure (WBS), Time Boxing and Gantt Chart.

5.1.1 Work Breakdown Structure (WBS)

The major goal of the work breakdown structure is to plan the project's timetable. Each task's time is scheduled in combination with the tasks that must come preceding and following. The work breakdown structure (WBS) gives an overall strategy that allows the project manager to identify how the project should move and manage the workflow effectively (Mong, 2018). It is an analysis that includes of the work that must be done to achieve a project's objectives. Project`s WBS will be:

	<i>Title</i>	<i>Duration</i>	<i>Start</i>	<i>End</i>
1	Introduction	7 days	7/04/2021	7/10/2021
2	Initial Study	20 days	7/11/2021	7/30/2021
3	Literature Review	17 days	7/31/2021	8/15/2021
4	Methodology	10 days	8/16/2021	8/25/2021
5	Planning	15 days	8/26/2021	9/10/2021
6	Feasibility	16 days	9/11/2021	9/25/2021
7	Foundation	10 days	9/26/2021	10/5/2021

8	Exploration	5 days	10/6/2021	10/10/2021
9	Engineering	14 days	10/11/2021	10/31/2021
10	Deployment	50 days	11/1/2021	12/20/2021
11	Testing	6 days	12/21/2021	12/26/2021
12	Implementation	5 days	12/27/2021	12/31/2021
13	Critical Appraisal and Evaluation	13 days	01/02/2022	01/15/2022
14	Lessons Learned	3 days	01/16/2022	01/18/2022
15	Conclusion	4 days	01/19/2022	01/22/2022
		Total 195 days		

Table 2: Work Breakdown Structure (WBS) List

5.1.2 Resource Allocation

Resource allocation involves controlling real assets such as hardware in order to maximize the use of intangible assets such as human capital. Allocating resources involves balancing various demands and objectives. Organizations must first identify their target end objective before engaging in resource allocation (Lebeaux, 2018). DCL-HRM is an academic project, so that I will perform in different stages in different time. DCL-HRM project's resource allocation is as follows-

	Task	Duration	Resource
1	Introduction	7 days	Analyst, User
2	Initial Study	20 days	Analyst
3	Literature Review	17 days	Analyst, Team Leader
4	Methodology	10 days	Analyst, Developer
5	Planning	15 days	Analyst, Developer, Team Leader, Designer
6	Feasibility	16 days	Analyst, Team Leader
7	Foundation	10 days	Analyst, Designer, Developer
8	Exploration	5 days	Analyst, Designer, Developer
9	Engineering	14 days	Designer, Developer
10	Deployment	50 days	Analyst, Developer
11	Testing	6 days	Developer, Designer, User, Tester
12	Implementation	5 days	Developer, Analyst, User
13	Critical Appraisal and Evaluation	13 days	Analyst, Developer, Tester
14	Lessons Learned	3 days	User, Analyst, Developer
15	Conclusion	4 days	Analyst

Table 3: Resource Allocation List

5.1.3 Timeboxing

Timeboxing is a simplistic time management concept that involves allocating a minimum and maximum unit of time. Then finish the task within the time limit. A Timebox is defined by DSDM fixed period of time at the end of which an objective is satisfied. The Timebox target is usually to fulfill one or more tasks. This assures that the goal of a Timebox is just complete something to full and meaningful. DCL-HRM project`s need to complete all tasks completed within the time frame:

<u>Timebox</u>	<u>Task</u>	<u>Resource</u>
-----------------------	--------------------	------------------------

TB1	Introduction	Analyst, User
	Initial Study	Analyst
	Literature Review	Analyst, Team Leader
TB2	Methodology	Analyst, Developer
	Planning	Analyst, Developer, Team Leader, Designer
	Feasibility	Analyst, Team Leader
TB3	Foundation	Analyst, Designer, Developer
TB4	Exploration	Analyst, Designer, Developer
	Engineering	Designer, Developer
TB5	Deployment	Analyst, Developer
	Testing	Developer, Designer, User, Tester
TB6	Implementation	Developer, Analyst, User
	Critical Appraisal and Evaluation	Analyst, Developer, Tester
TB7	Lessons Learned	User, Analyst, Developer
	Conclusion	Analyst

Table 4: List of the Time Boxes

5.1.4 Gantt Chart

Gantt charts show the optimal project management technique. That is, separate project work into linear sequential phases, with each step depending on the one before it. Every action in the stage has an estimated time to finish it. Because each activity is interdependent, you can estimate when the project will be completed. In the below Gantt Charts shows the start date of the project schedule, project tasks, tasks start and finish date.

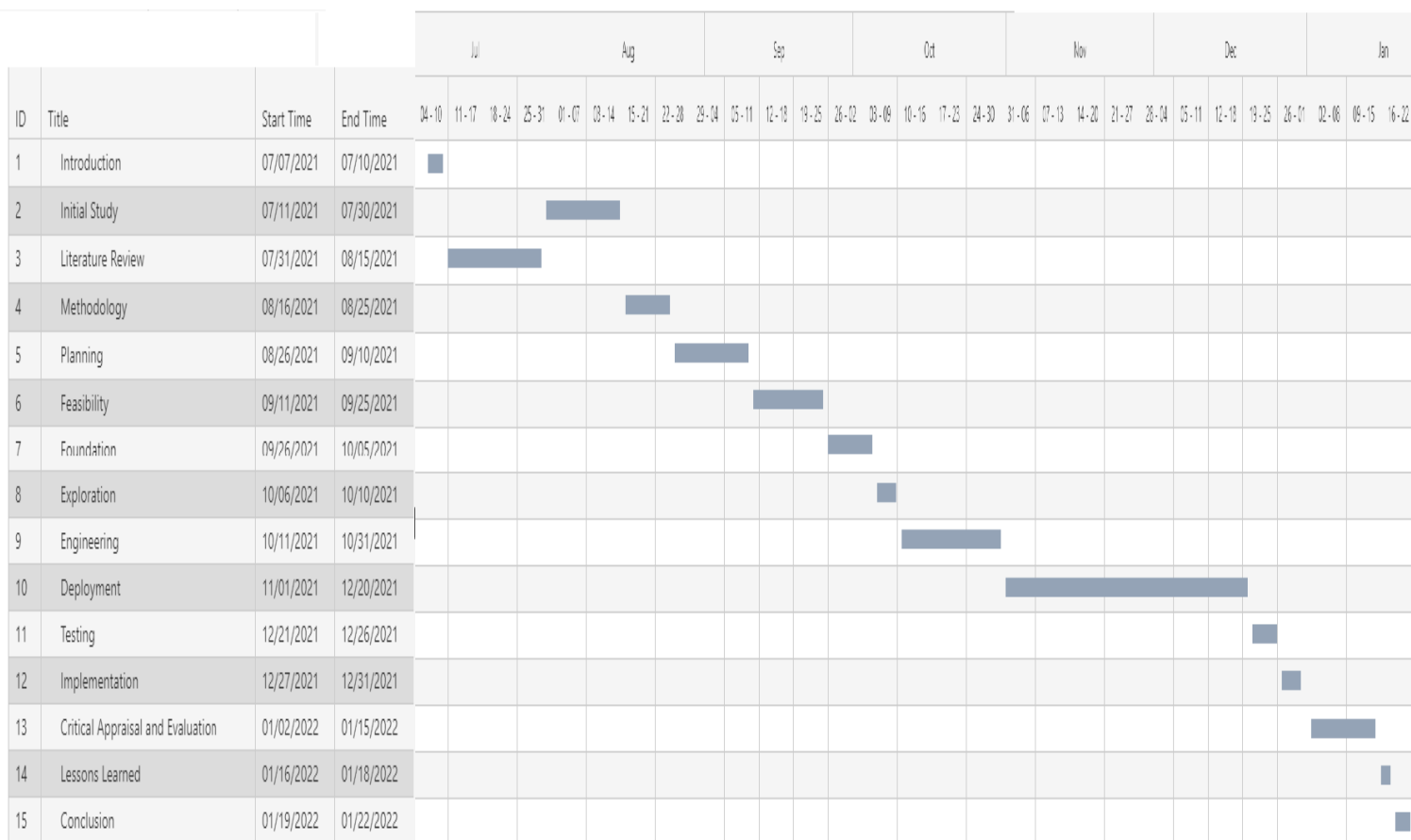


Table 5: Gantt chart

Chapter 6 - Feasibility

In this blog, feasibility study is used to establish the acceptability of a concept, such as ensuring a project is both technically and economically feasible. It informs us whether a project is profitable. A feasibility analysis finds that in some situations, a project may not be feasible. Various types of feasibility studies will evaluate both the possibility and the difficulties in achieving the best results. An enterprise may save money and time by conducting this study.

6.1 All Possible Type of Feasibility

Among these top 5 types of a feasibility study are the important components of checking the possibility of the project start, progress, achievement, and delivery. Let us go through each one in detail.

6.1.1 Operational Feasibility

The extent of steps to solve business challenges and user needs is evaluated by operational feasibility. This evaluation involves conducting research to evaluate if and how successfully the organization's requirements can be met by finishing the project. The following tasks are also performed by operational feasibility-

- Determines whether the problems specified in the user requirements are high priority.
- Determines if the software development team's proposed solution is acceptable.
- Defines whether users will adjust to new software.
- Make sure software satisfaction

6.1.2 Technical feasibility

For DCL-HRM, technical feasibility analysis whether the necessary resources and technology are available for project development. This feasibility study also examines the technological skills and capabilities of the technical team, as well as whether or not current hardware can be used (Simplilearn, 2022). Technical feasibility analyzes the system's technical complexity and determines if the expert system can be built using techniques and tools.

In the below the technical features of **DCL-HRM** projects are listed-

Hardware

- Computer
- Wi-fi router

Software

- Windows 10
- Microsoft Edge
- Visual Studio
- XAMPP

Database

- MySQL

Technology

- HTML
- CSS
- Java Scripts
- Bootstrap
- PHP (7.2.33)

6.1.3 Economic Feasibility

This economic feasibility analysis includes a thorough evaluation of the project progress cost, which includes all final development costs such as hardware and software resources, development costs and design, among other things. Software will be economically feasible if it focuses on the following concerns.

- The cost of developing software to deliver long-term benefits for a company.
- The cost of conducting a complete software investigation such as requirements elicitation and analysis.
- Hardware, software, development staff, and training costs.

For DCL-HRM, web-based application cost analysis in the below:

Web based application cost

Equipment	Cost Per Unit (Per month)	Cost
Internet	1500	
Desktop/ Laptop (core i7, 1.60 GHz up to 3.40 GHz, 16GB DDR4 RAM, HDD, SSD)	1,50,000	1,50,000
Domain, Hosting and email service	15,000	15,000
Total	1,66,500	1,66,500

Table 6: Cost of Web Application

6.2 Cost Benefit Analysis

A cost-benefit analysis is a financial model that takes into account both physical and intangible benefits while making decisions. It also examines and compares the corresponding expenses for producing tangible results. Managers will be able to make data-driven educated judgments regarding any investment based on the values obtained. Next 5 years' total estimated revenue and cost are given below:

6.2.1 Total Budget for next five years

SL No.	Component	1 Year	2 Year	3 Year	4 Year	5 Year	In Total
1	Web App	1,00000					1,00,000 tk
2	Email, Domain & Hosting	15,000	15,000	15,000	15,000	15,000 t	75,000 tk
3	Software License	5,000					5,000 tk
4	Hardware Setup	1,50,000					1,50,000 tk
5	Server	5,00,000					5,00,000 tk
6	Maintenance	50,000	50,000	50,000	50,000	50,000	1,50,000 tk
7	Staff Training	30,000	30,000	30,000	30,000	30,000	1,40,000 tk
	Total	8,50,000tk	95,000tk	95,000tk	95,000tk	95,000tk	11,20,000tk

Table 7: Estimation Cost of the project

6.2.2 Total Earning

SL No.	Earning	1Year	2Year	3Year	4Year	5Year	Total
1	Govt. Tax	1,00,000	1,30,000	1,60,000	1,90,000	2,20,000	8,00,000tk
2	Govt. Tax	1,20,000	1,60,000	2,00,000	2,40,000	2,80,000	10,00,000tk
	Total	2,20,000	2,90,000	3,60,000	4,30,000	5,00,000	18,05,000tk

Table 8: Estimation Earn of the project

6.2.3 Revenue in Total

SL No.	Sector	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Earning	2,20,000	2,90,000	3,60,000	4,30,000	5,00,000	18,05,000tk
2	Cost	8,50,000	95,000	95,000	95,000	95,000	11,20,000tk
	Total Revenue	-6,30,000	1,95,000	2,65,000	3,35,000	4,05,000	5,70,000tk

Table 9: Estimation Revenue of the project

6.2.4 Market Research based on HRM software

The Human Resource Management Market is expected to reach \$31.4 billion by 2025, increasing at a CAGR of 13.07 percent between 2020 and 2025. Organizations are increasingly adopting HRM solutions after realizing the potential of these solutions in improving and upgrading HR operations, ultimately boost the market. The current pandemic has had a worldwide impact on the economy. This pandemic has both present and long-term consequences. All businesses are trying to adapt to work-from-

home modules. A suitable HRM software will assist in increasing efficiency while maintaining job quality.

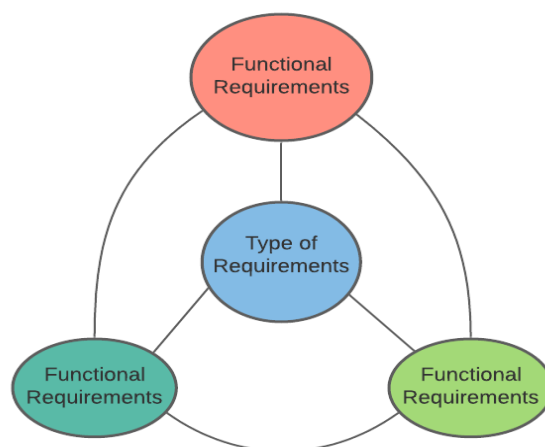
6.3 Is DSDM Beneficial or Harmful for This Project?

DSDM technique for DCL-HRM projects because, it can be monitor project progress in the early phases and allow for a mid-project break down. This project may need to accept changes during the project is develop. Allows developers to access to end users. Its structure is appropriate for a wide range of difficult problem-solving activities. The DSDM technique ensures that projects are completed on time and under budget. Analyzed all other methodology it is clear to say that, DSDM is the best approach according for DCL-HRM project.

Chapter 7 - Foundation

7.1 General Requirement List

In this blog the purpose of the requirements is to provide a basis knowledge between the users and the developers of the initial system definition. Requirements enable to understand the system behavior, which is characterized by different system's tasks. For this project requirements are generally separated into two kinds. There are functional and non-functional requirements.



7.1.1 Functional requirements

Functional requirements are principles or goals that determine the behavior of a system. What a software system must or must not do is specified by functional requirements.

Functional Requirements of **DCL-HRM** is listed below:

- Administrative is the central point of control for the whole system. The Administrative Module is where all management duties such as setting job titles, registering user accounts, tracking the audit trail, and many other system administration functions are performed.
- Personal Information Module (PIM) stores all necessary employee information. Various types of personal information, detailed certifications and work experience, employment information and so on.
- Leave management system with several options for establishing leave categories and more. It handles various application and approval processes and can display information such as leave application, leave balance, history, and so on.
- Employees may enroll and submit individual timesheets and punch in/out times, and supervisors can evaluate employee timesheets and monitor employee activity using employee and project reports.
- A company's recruiting process is managed by recruitment. The administrator can create vacancies
- Manages and reviews all employee performance so that the organization can understand how well an employee is working in relation to objectives and strategies.
- In the dashboard, there is an overview of important information as well as quick access to specific activities. It makes critical information available with a single click.
- The admin user can configure the Directory Configuration so that workers with view access can see contact information. The System administrator might also choose which information should be displayed.

7.1.2 Non-Functional Requirements

- Data security and privacy
- Scalability and performance
- Any users who access the system must have a Logon ID and password.
- Backup data and resources.
- Each page load in less than three seconds.
- Within 10 minutes, emails will be sent.
- User-friendly interface.
- The system is always online. And administrators may examine and change any information.
- Maintainability
- Under specific situations, emphasizes a system's reliability.

7.2 Technology to be Implemented

Basically, A web-based system allows users to access a software system via a computer and an internet connection. The creation of a method that allows two or more computer devices to communicate over a network is known as web technology. Web technology involves a wide range of complex and diverse activities. Web technology has transformed communication and made operations significantly more efficient (Khamooshi, 2019). There are several implementation technologies options for putting the proposed system into action. It is essential to select the correct technology if you want to be successful.

7.2.1 Client-Server Application

A client-server structure is a common software design architecture that divides a program into two components- client-side and server-side. The client-side is executed on the end-user. It gives a UI that determines how the program feels look like and how it communicates with end user. The server-side handles client requests and includes the logic to return the relevant data to the client (syedmodassirali, 2019).

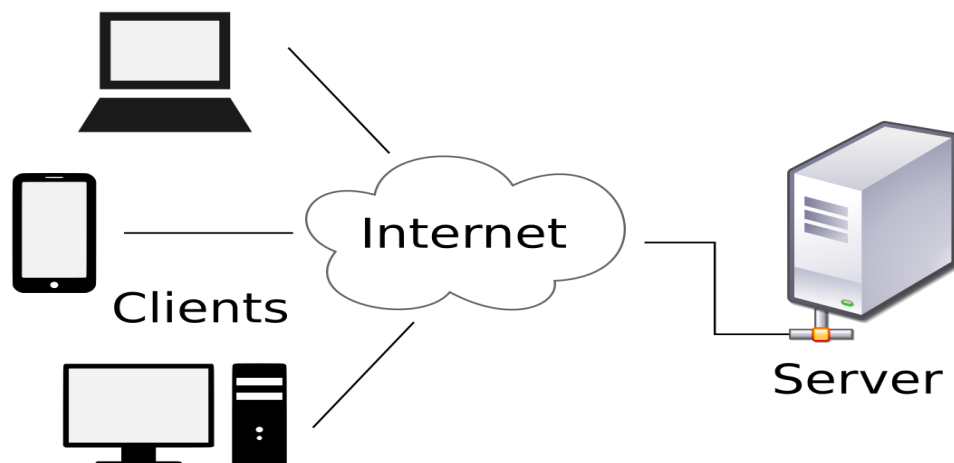


Figure 4: Client-Server Structure

The following are the basic features of a client-server application.

- Client-server architecture has control over the network's activity.
- All data is stored in a central location.
- All network devices may be managed from a single point.
- Network security and Backups can also be controlled.
- All users able to access the whole shard files that are stored securely.
- It can be scaled, which means that its size may be increased as needed.
- It can resist a lot of wear and tear.
- Client-server systems have the most powerful management mechanism in place to maintain all records of whole files.
- It allows consumers to cut down on data duplication for their applications (BANGER, 2020).

7.3 Web Application

A web browser is the computer application that helps a web browser to do a certain task. It's also referred to as a web app. Many websites work in tandem with web apps. A basic example is a login form on a website. A client-server application is what web software is. It has a client-side as well as a server-side. Client is the name given to the software that a user employs to run an application. It is a component of the client-server system, which allows numerous computers to connect with one another. (Team, 2021). The server is the program that stores the data. Some of the key features of client-server are listed below:

- Users' ability to access information among all devices
- Adjustment for various devices
- Increased Security.
- Could system provide a series of benefits to your company.
- Simple to install and maintain.
- Flexible in terms of the remaining assigned task
- Center developments are adaptable (Roomi, 2021)

Chapter 8 - Exploration

8.1 Use Case for Full System

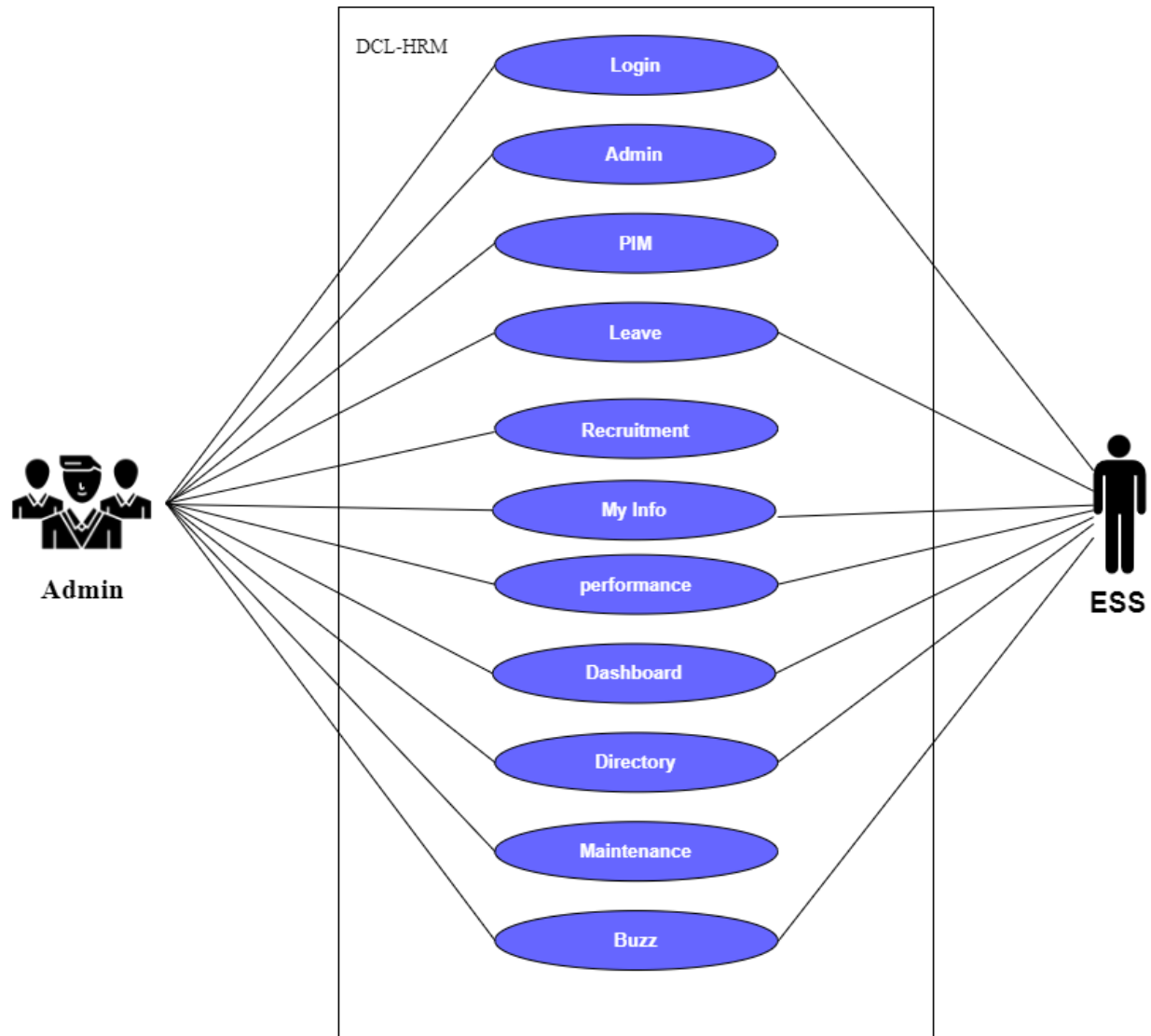


Figure 5: Use Case Diagram for Full System

8.1.1 Admin Module Use Case

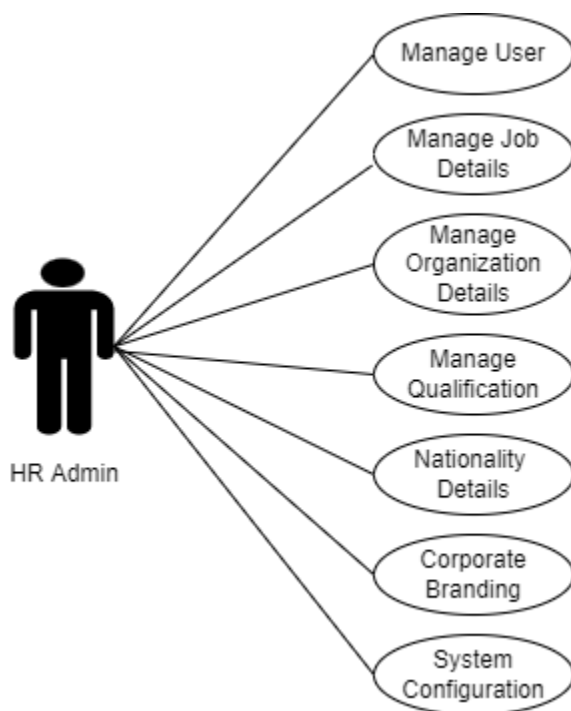


Figure 6: Use Case Diagram for Admin

8.1.2 PIM Module Use Case

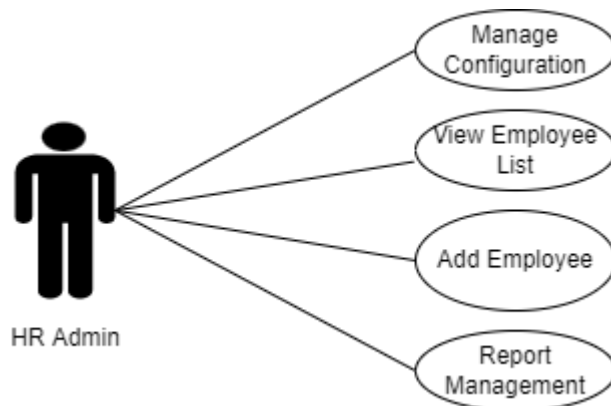


Figure 7: Use Case Diagram for PIM

8.1.3 Leave Module Use Case Diagram

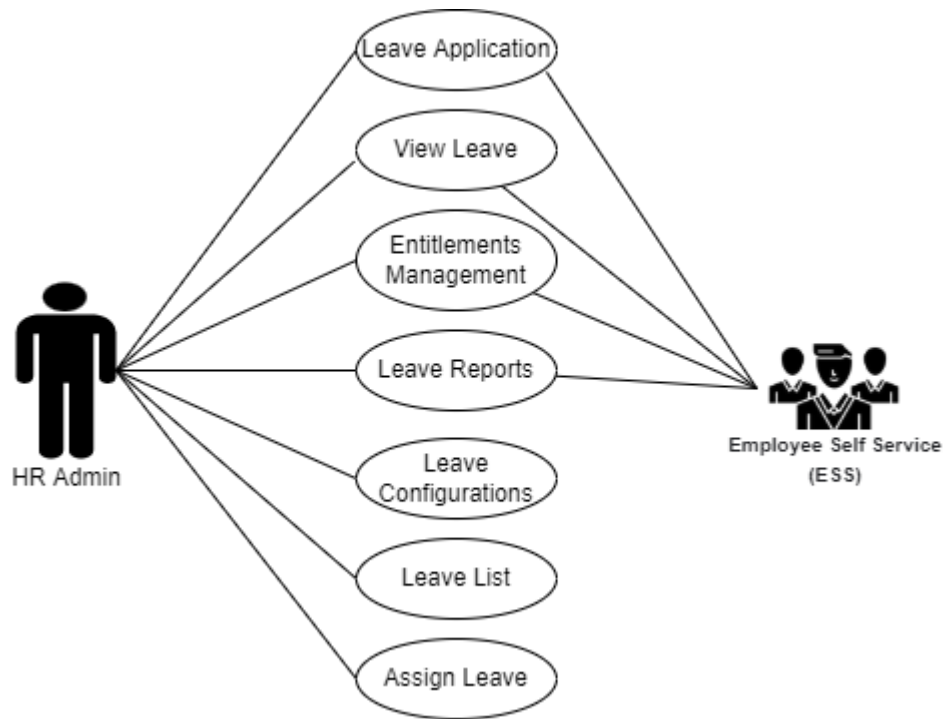


Figure 8: Use Case Diagram for Leave

8.1.4 Time Module Use Case Diagram

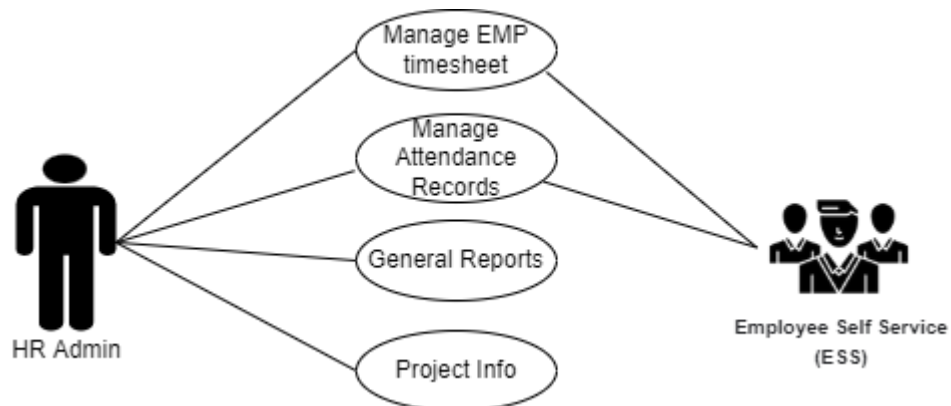


Figure 9: Use Case Diagram for Time

8.1.5 Requirement Module Use Case Diagram

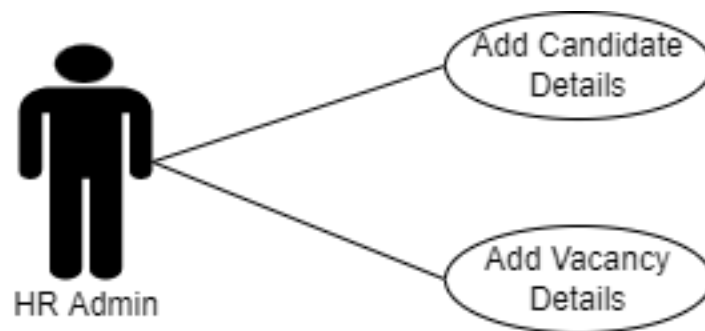


Figure 10: Use Case Diagram for Requirement

8.1.6 Performance Module Use Case Diagram

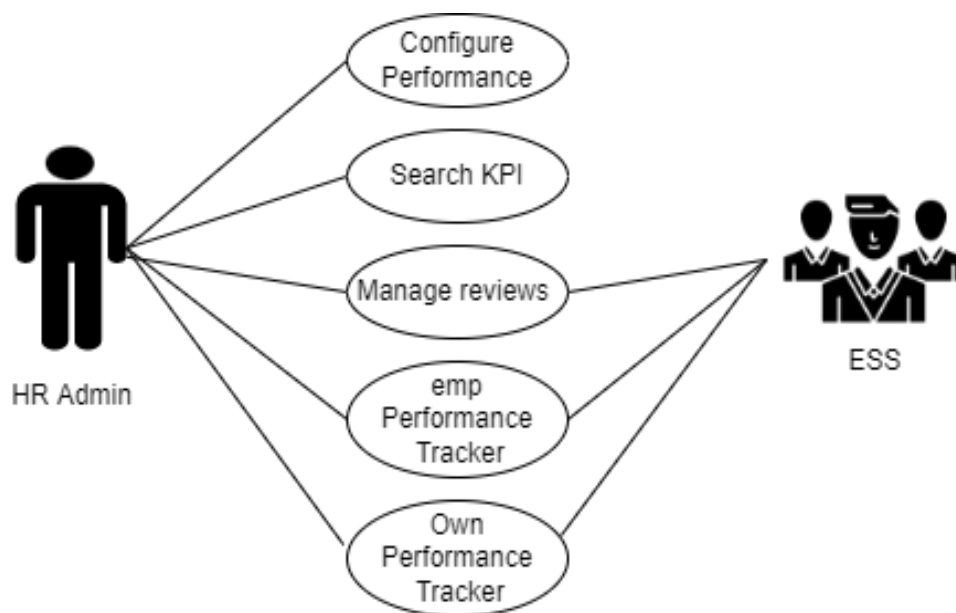


Figure 11: Use Case Diagram for Performance

8.1.7 Maintenance Module Use Case Diagram

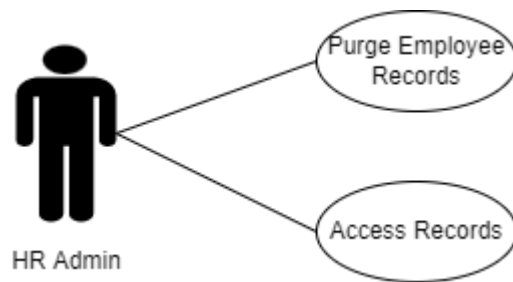


Figure 12: Use Case Diagram for Maintenance

8.2 Full System Activity Diagram

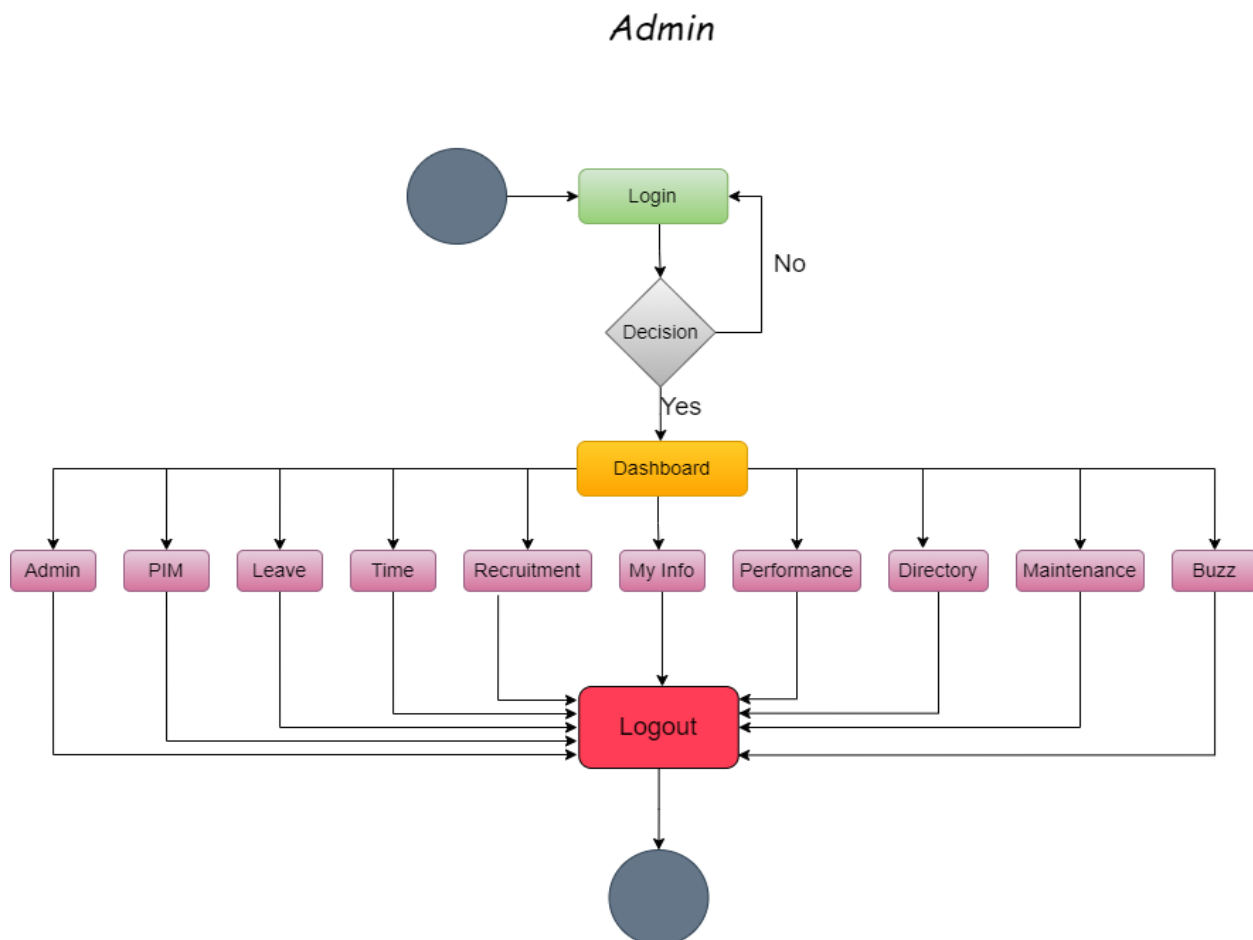


Figure 13: Activity Diagram for Admin

Employee

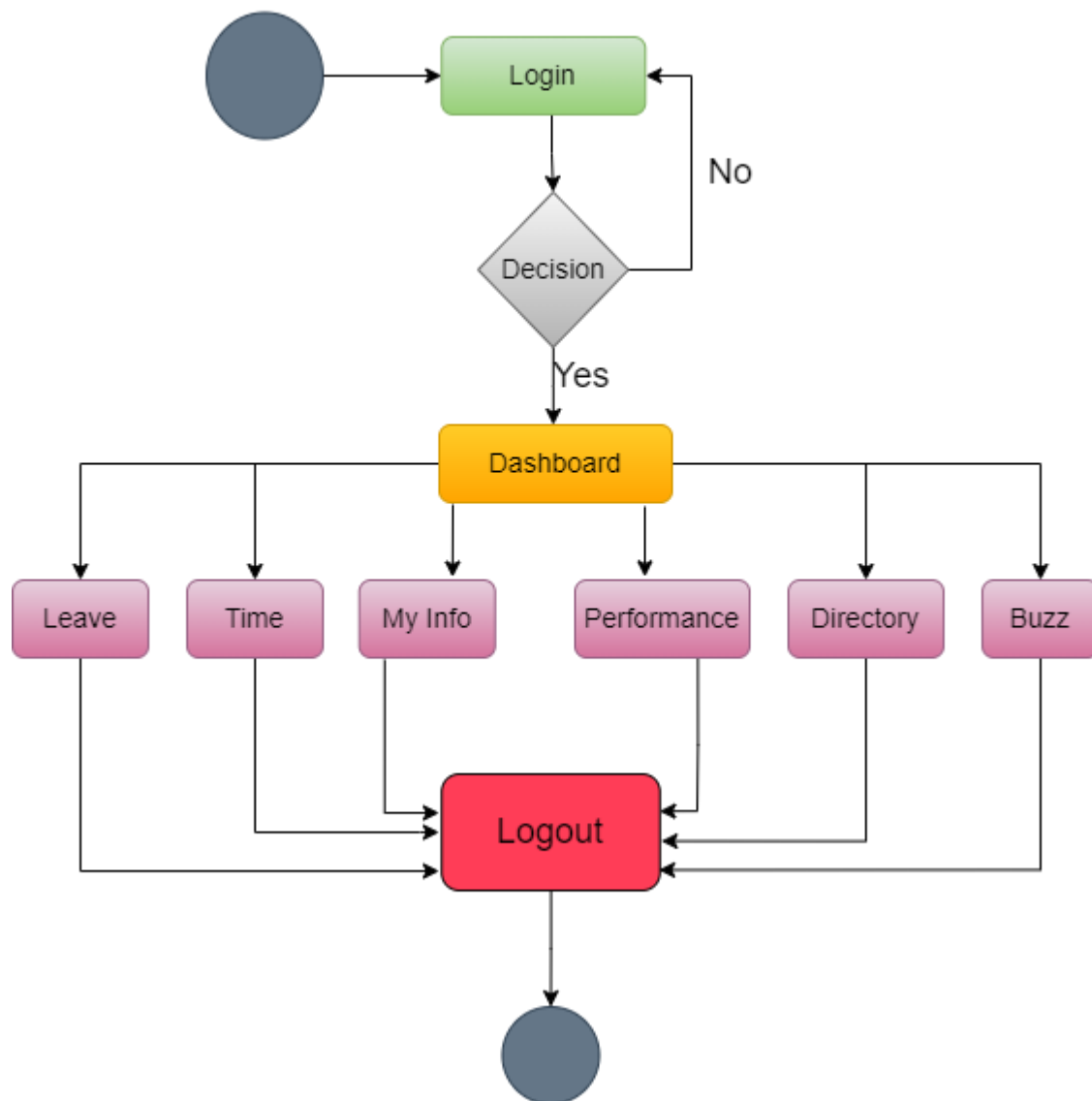


Figure 14: Activity Diagram for Employee

8.3 Activity Diagram

Admin Activity Diagram

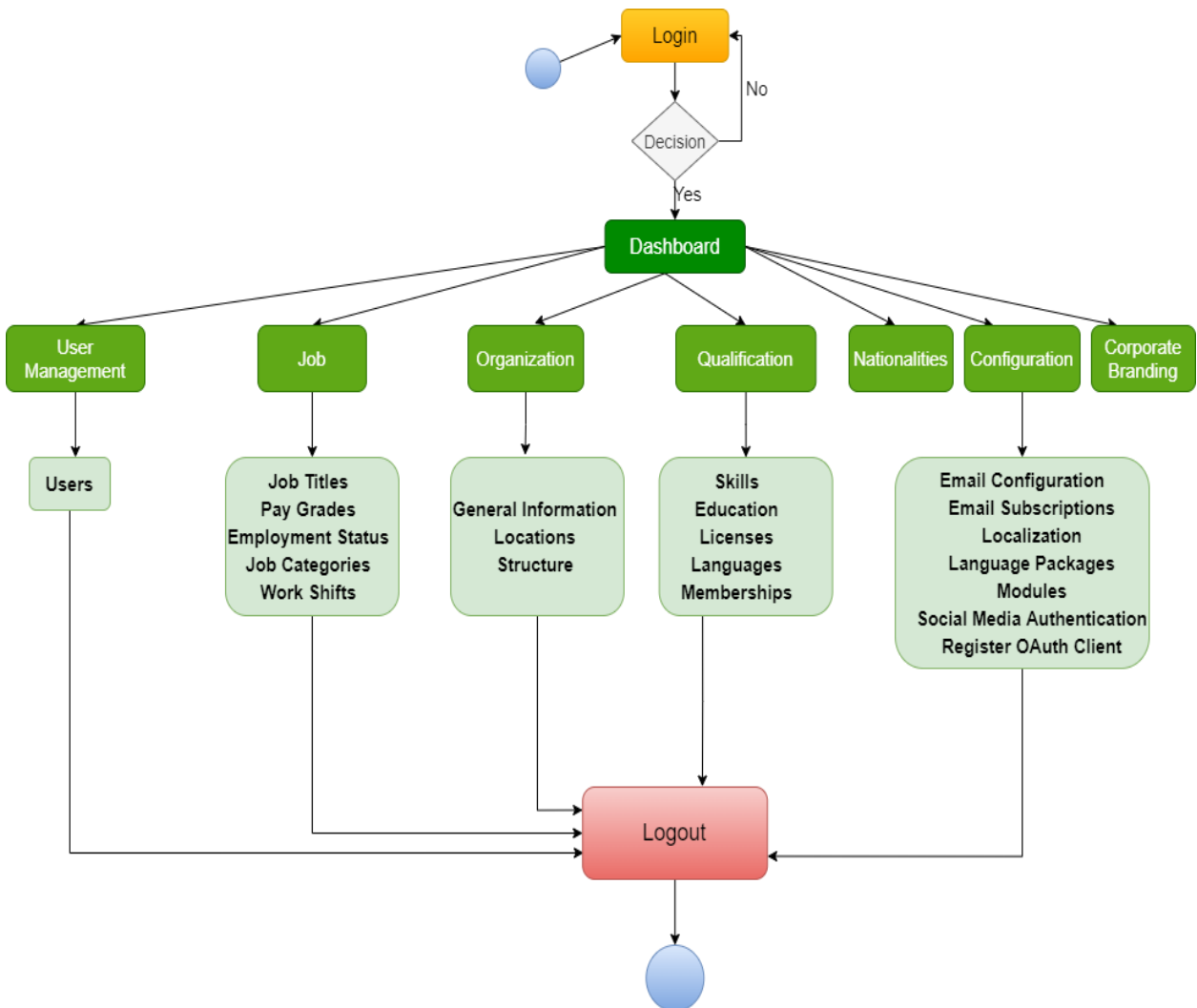


Figure- Admin Active Diagram

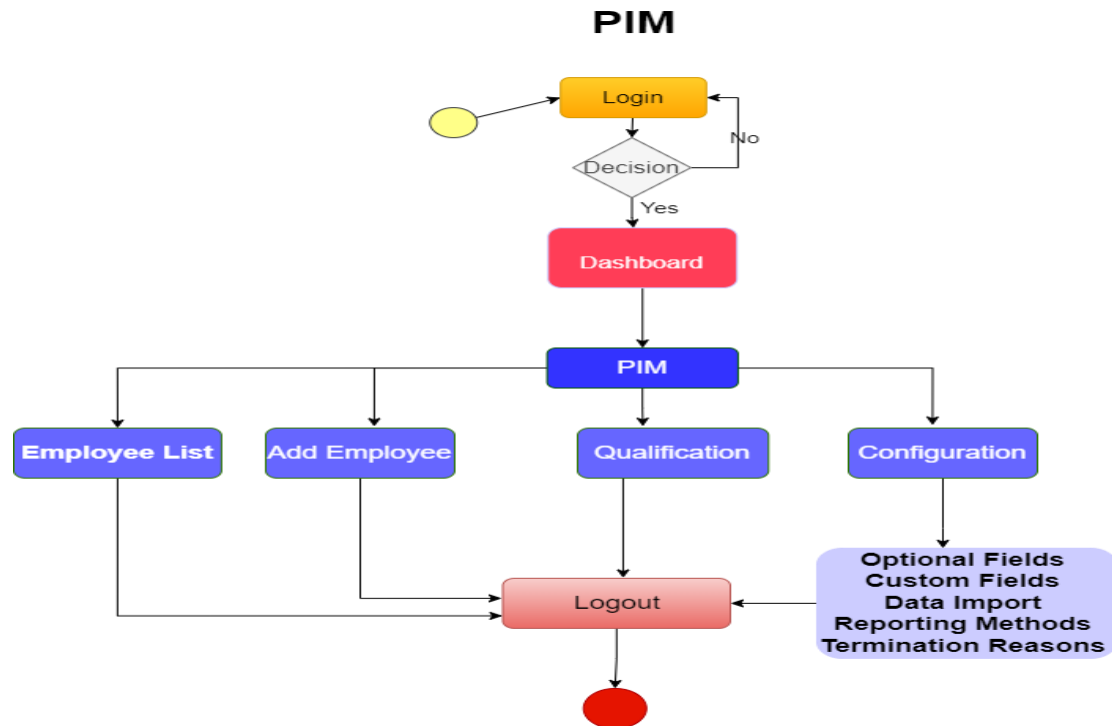


Figure 15: PIM Active Diagram

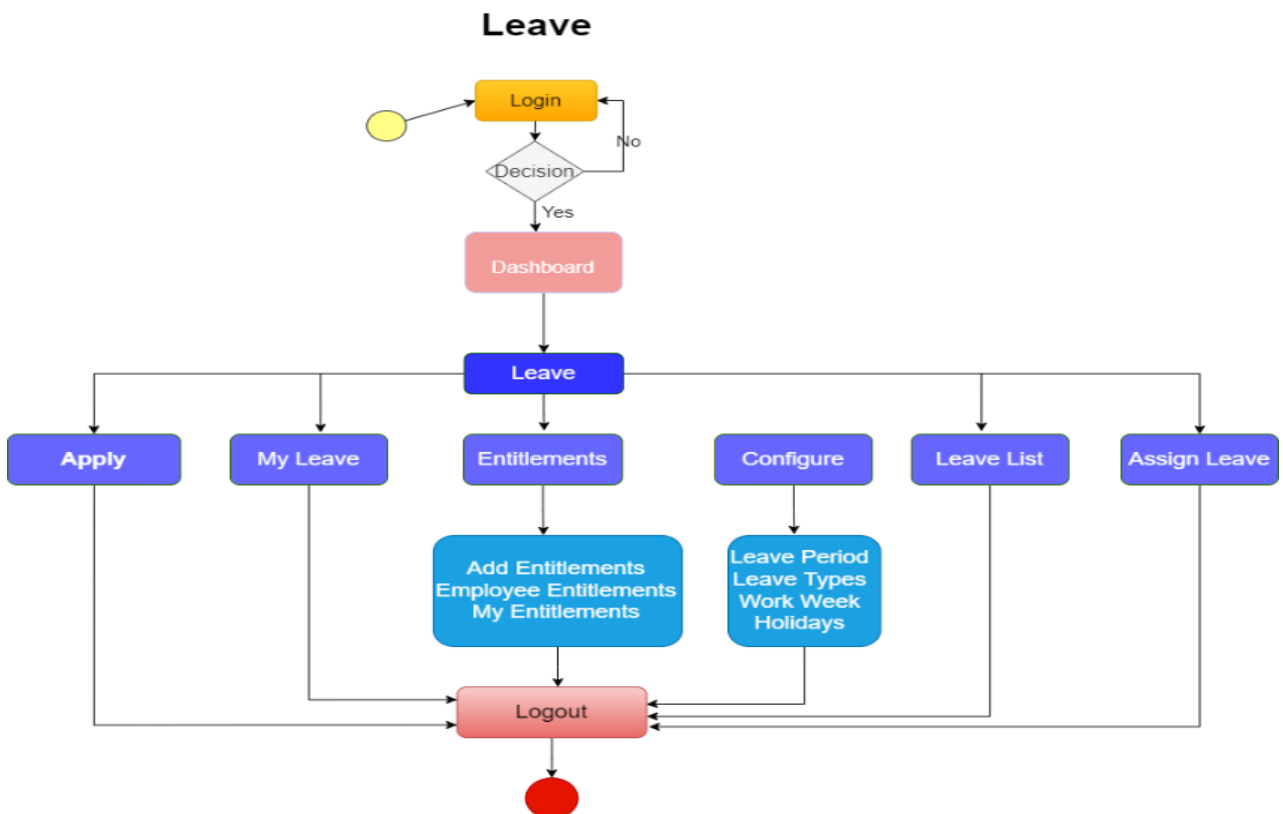


Figure 16: Leave Active Diagram

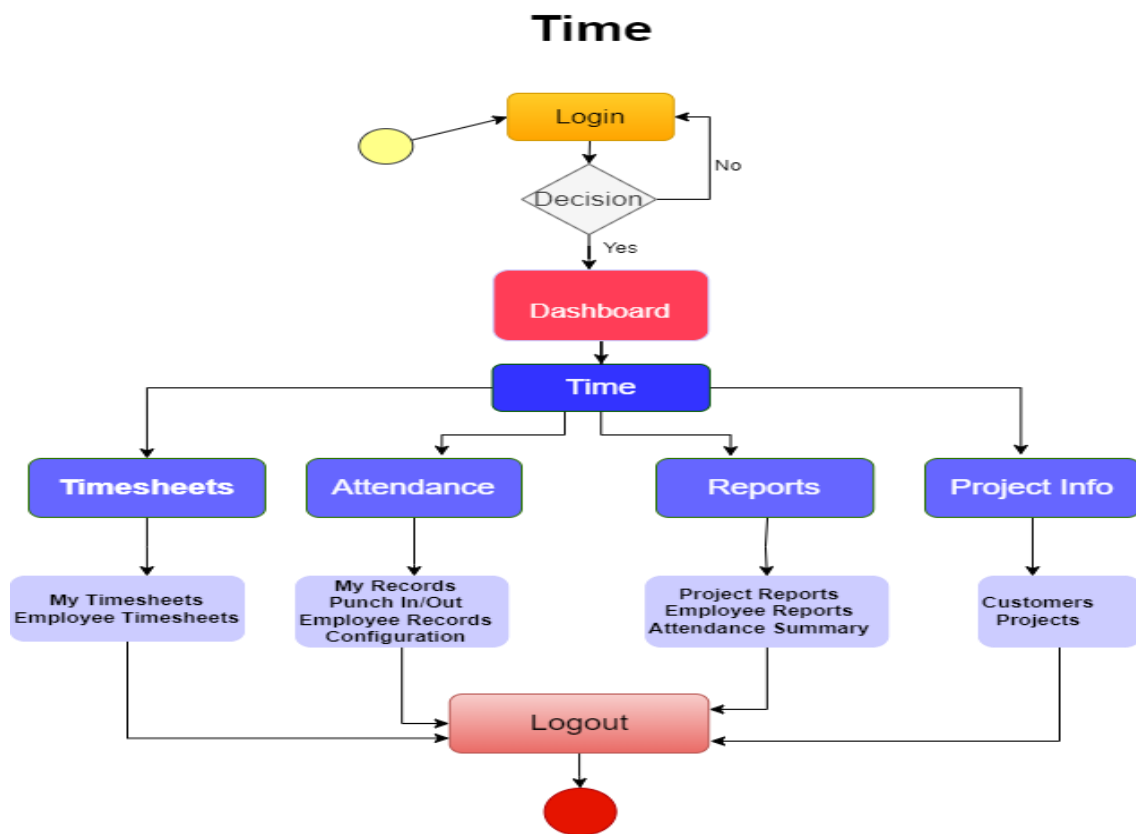


Figure 18: Time Active Diagram

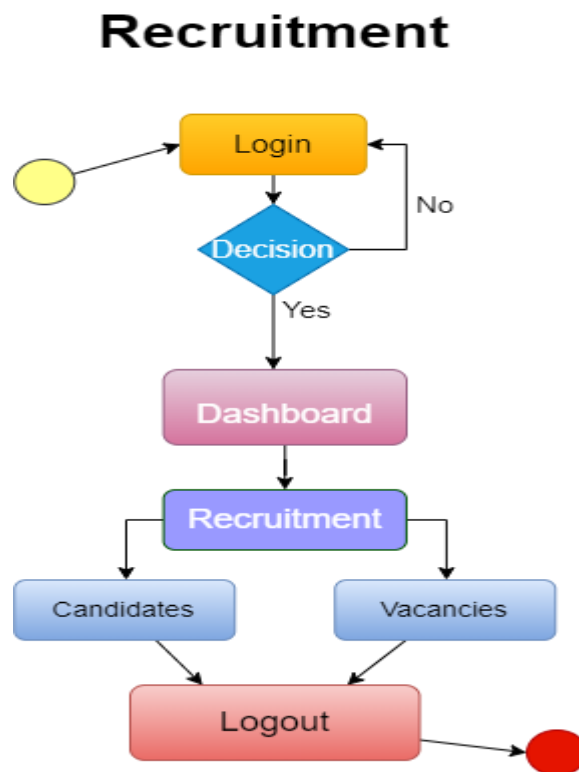


Figure 17: Recruitment Active Diagram

Performance

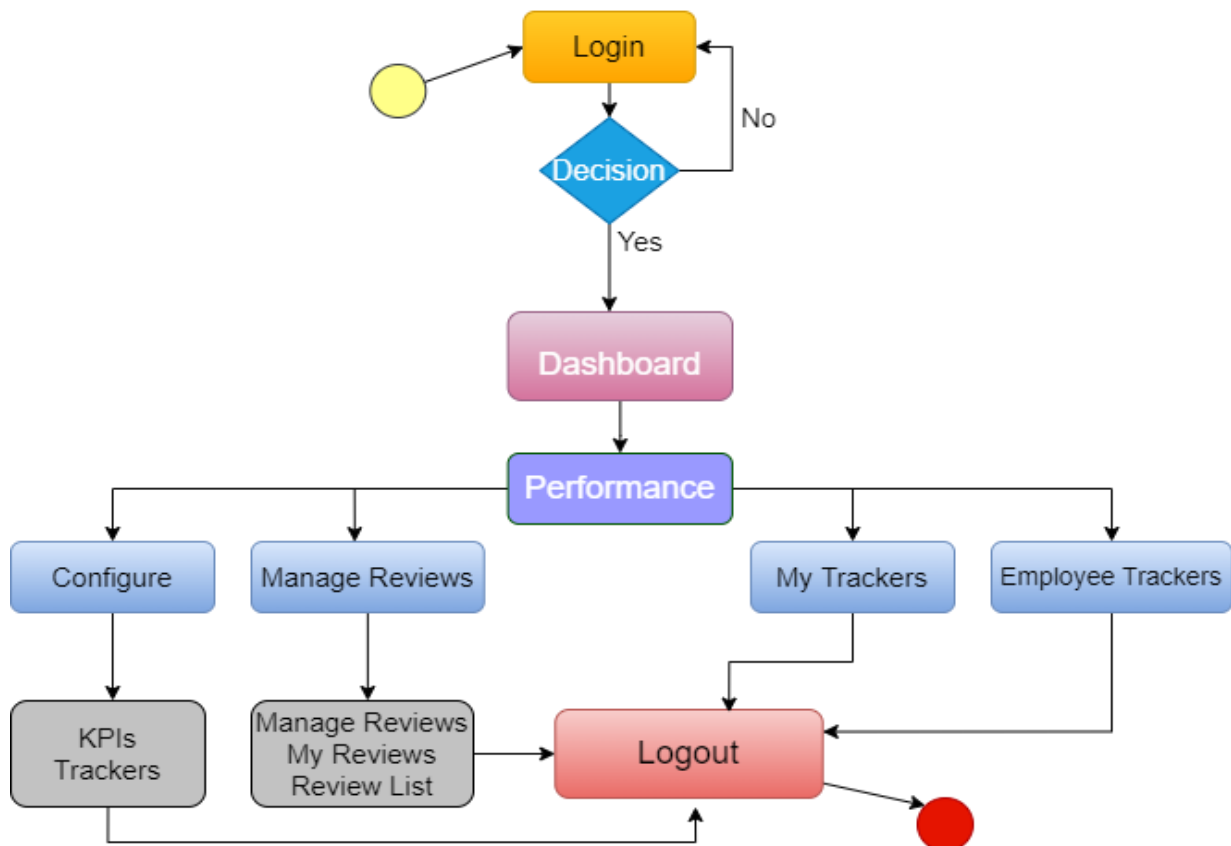


Figure 19: Performance Active Diagram

Chapter 9 - Engineering

9.1 Class Diagram of DCL-HRM

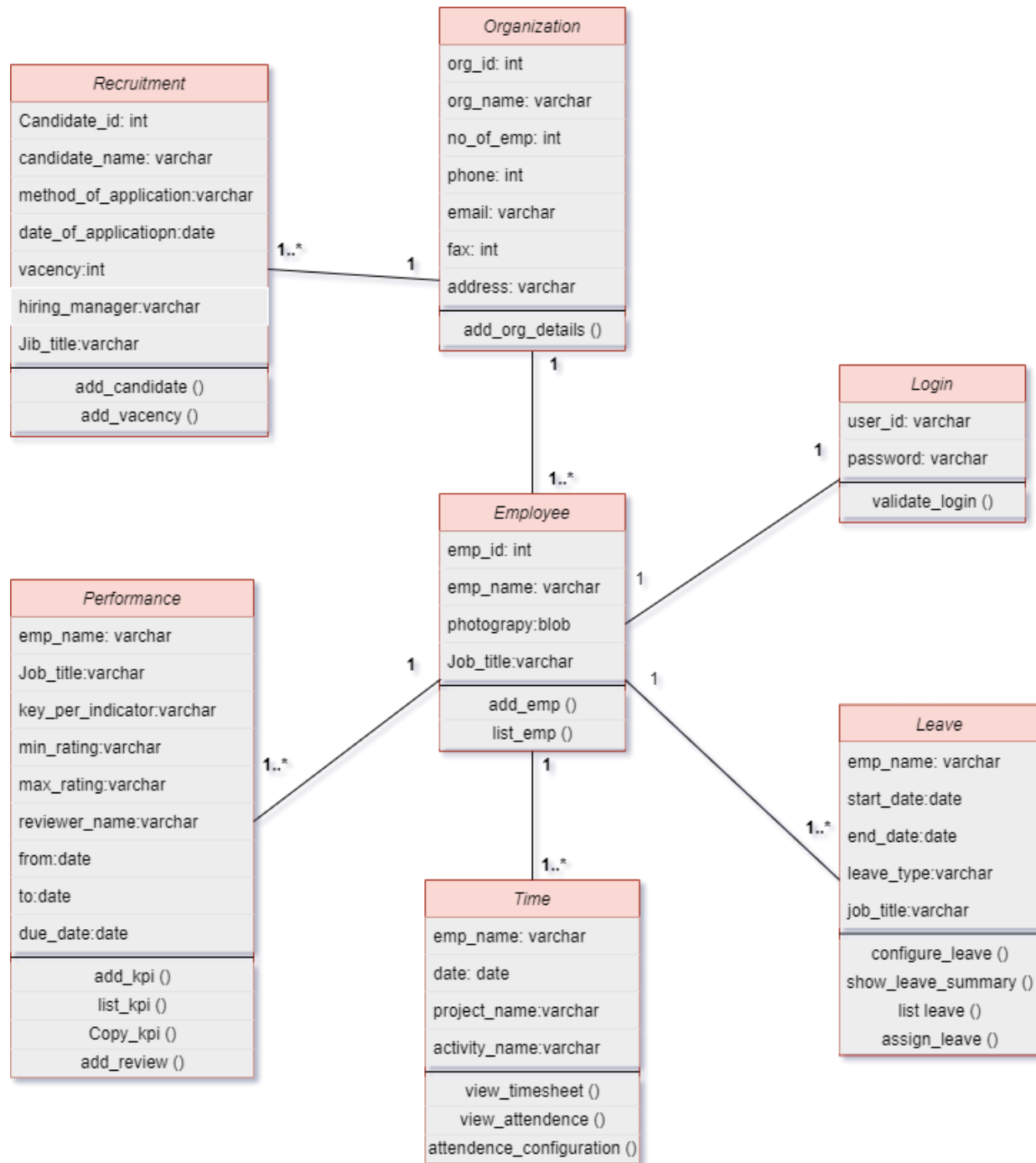


Figure 20: Class Diagram of DCL-HRM

9.2 Entity Relationship Diagram

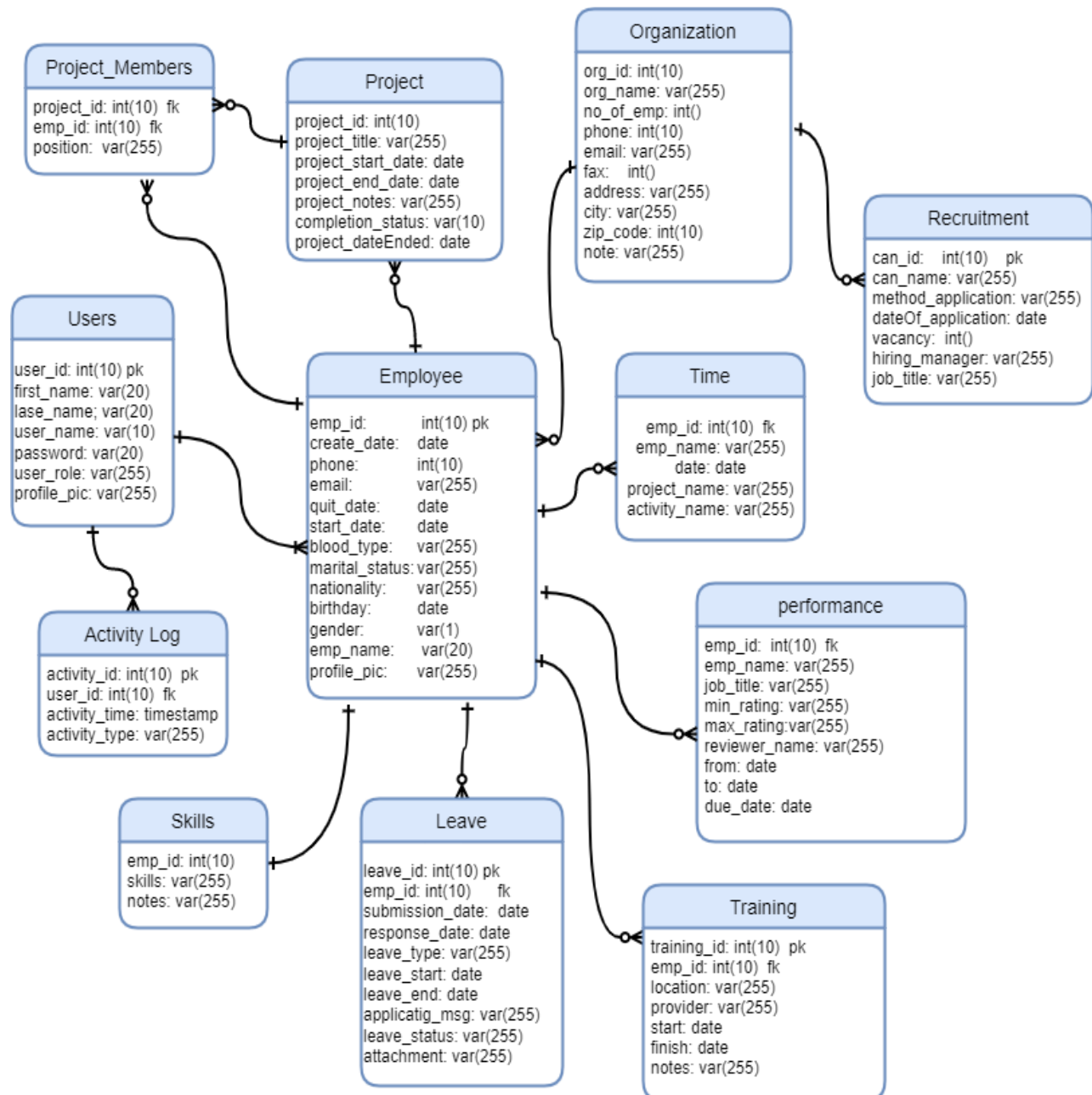


Figure 21: ER Diagram of DCL-HRM

9.3 Sequence Diagrams

9.3.1 Admin Sequence Diagram -

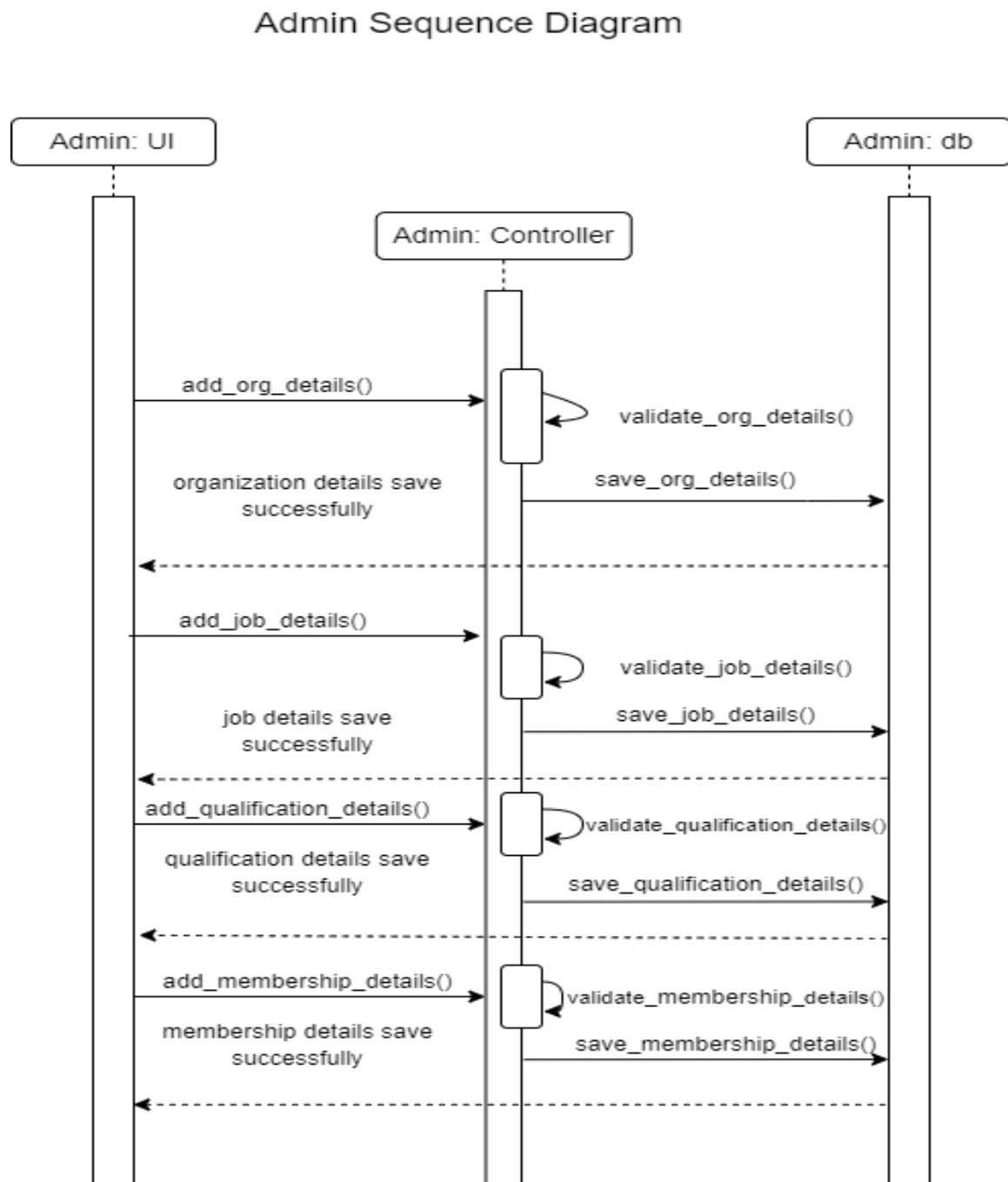


Figure 22: Admin Module Sequence Diagram

9.3.2 PIM Sequence Diagram-

PIM Sequence Diagram

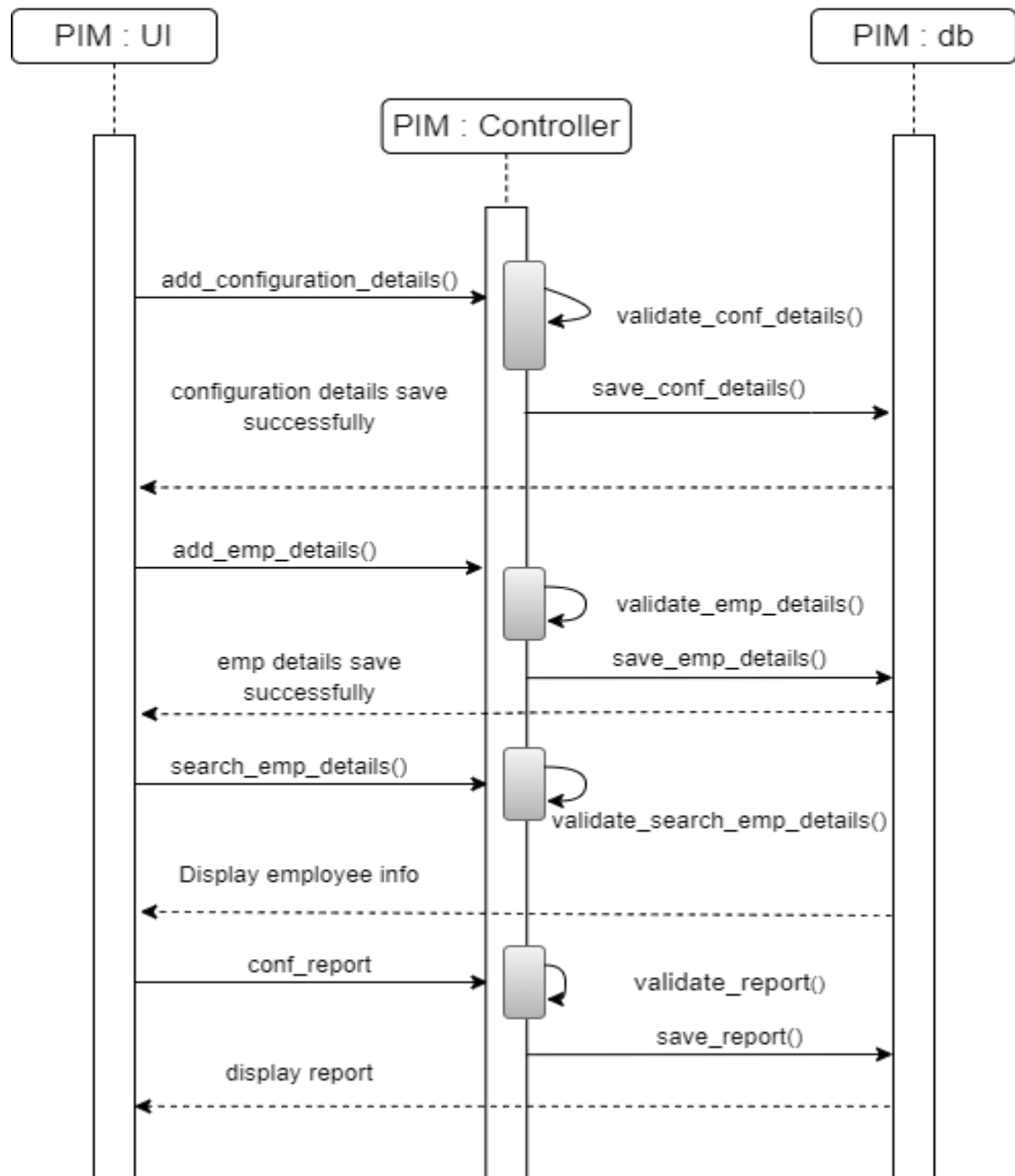


Figure 23: PIM Module Sequence Diagram

9.3.3 Leave Sequence Diagram-

Leave Sequence Diagram

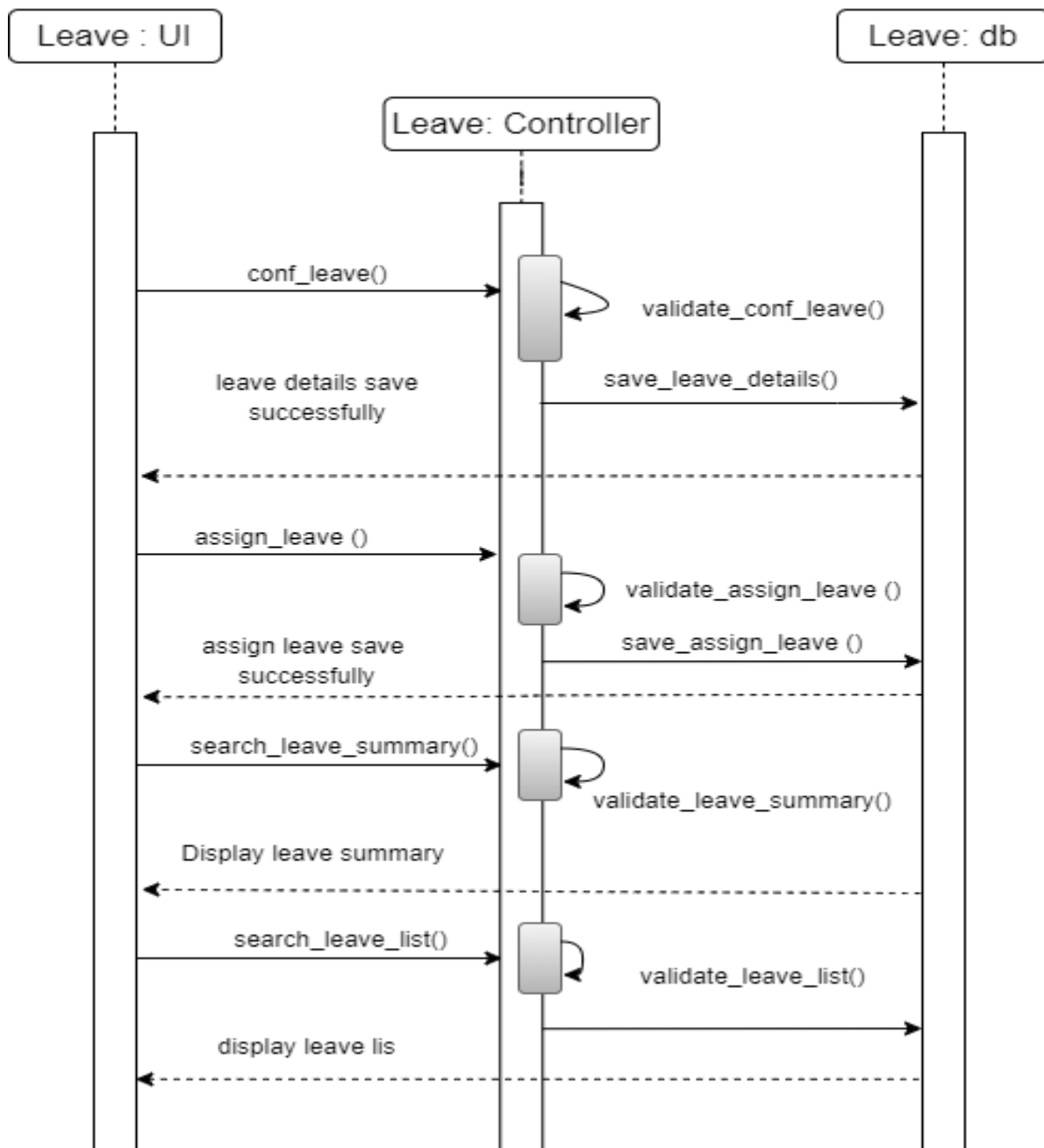


Figure 24: Leave Module Sequence Diagram

9.3.4 Time Sequence Diagram-

Time Sequence Diagram

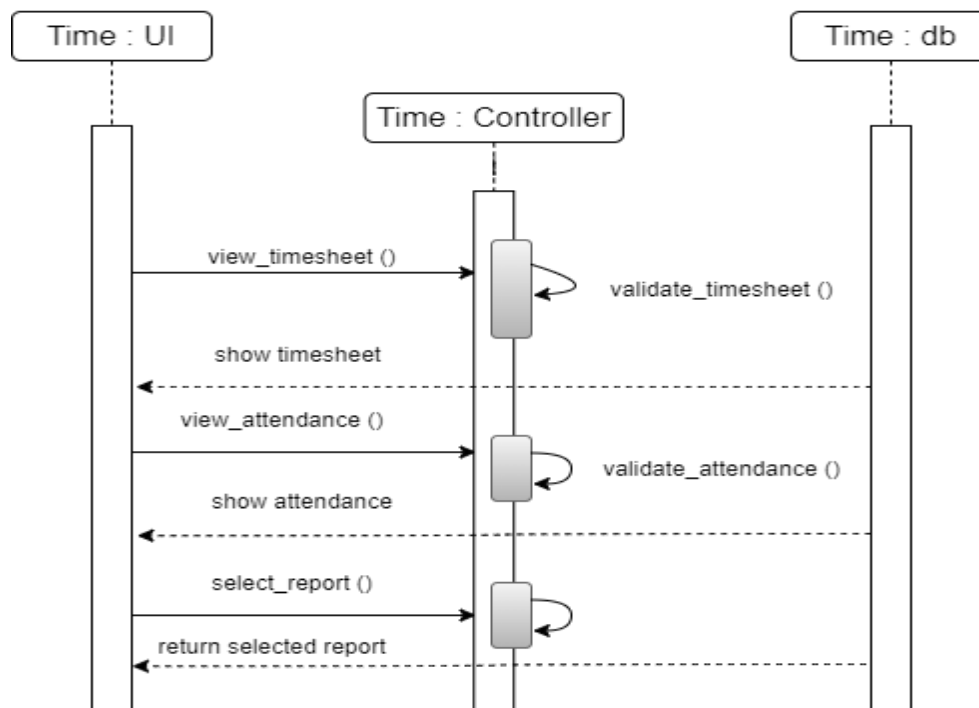


Figure 25: Time Module Sequence Diagram

9.3.5 Recruitment Sequence Diagram-

Recruitment Sequence Diagram

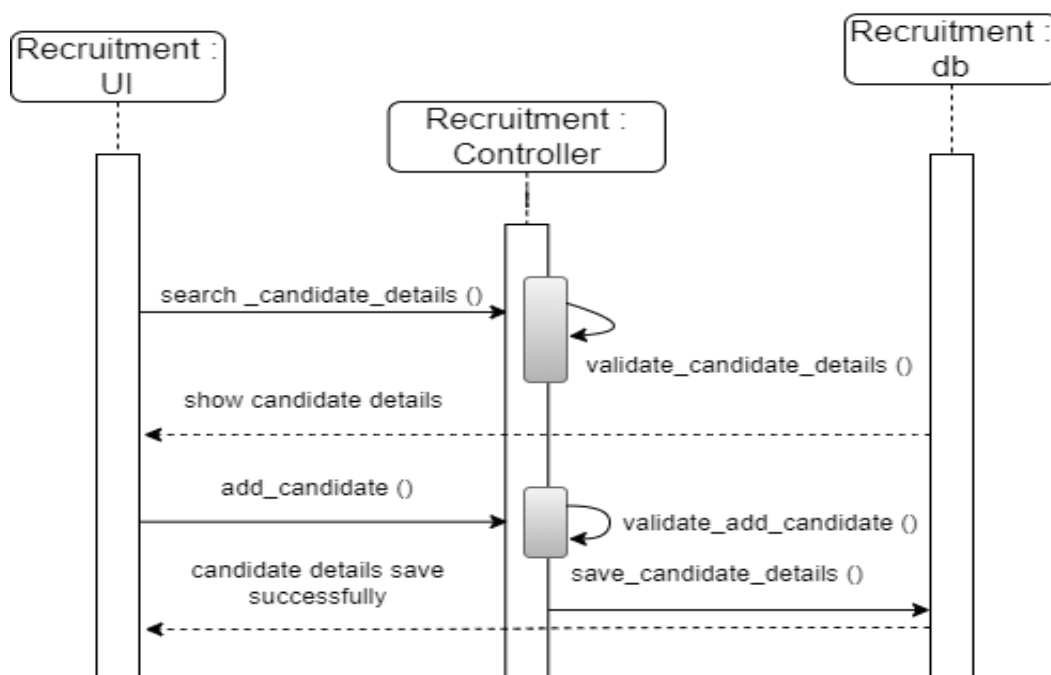


Figure 26: Recruitment Module Sequence Diagram

9.3.6 Performance Sequence Diagram-

Performance Sequence Diagram

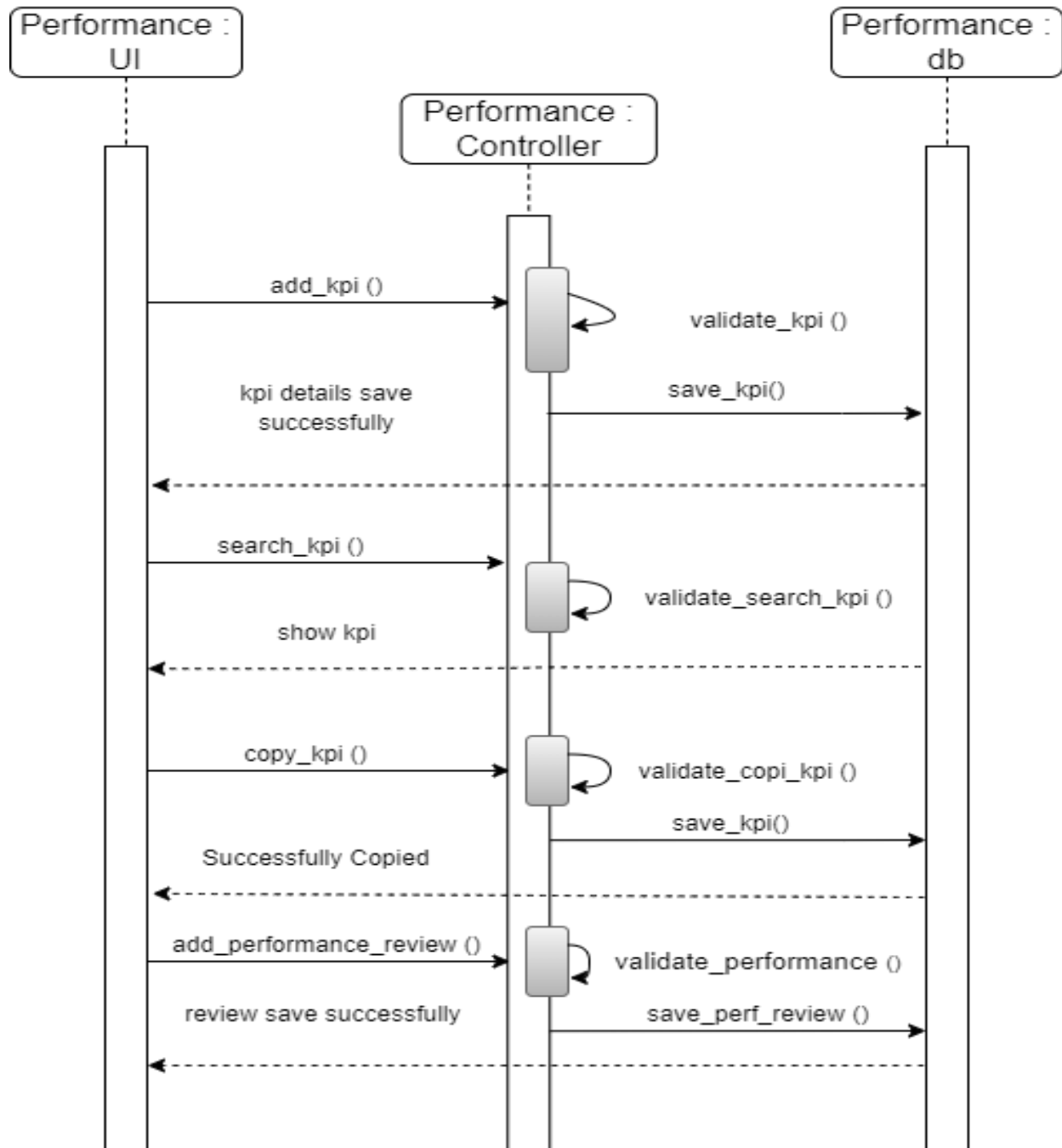


Figure 27: Performance Module Sequence Diagram

Chapter 10 - Development/ Deployment

10.1 Core Unit Coding Samples

Login module code Sample

```
class LoginForm extends sfForm {

    public function configure() {
        $installation = "";
        if (isset($_SESSION['Installation'])) {
            $installation = $_SESSION['Installation'];
        }
        $this->setWidgets(array(
            'Username' => new sfWidgetFormInputText(array(), array(
                'name' => 'txtUsername',
                'id' => 'txtUsername',
            )),
            'Password' => new sfWidgetFormInputPassword(array(), array(
                'name' => 'txtPassword',
                'id' => 'txtPassword',
                'autocomplete' => 'off',
            )),
            'Installation' => new sfWidgetFormInputHidden(array(), array(
                'name' => 'installation',
                'id' => 'installation',
            ))
        ));

        $this->widgetSchema['Password']->setOption('always_render_empty', false);

        $this->setDefaults(array(
            'Username' => $_SESSION['AdminUserName'],
            'Password' => $_SESSION['AdminPassword'],
            'Installation' => $installation,
        ));
    }
}
```

Figure 28: Code sample for login

Dashboard Quick Lunch coding Sample

```

<div id="dashboard-quick-launch-panel-menu_holder">
  <table class="quickLaungeContainer">
    <?php
      $links = $links->getRowValue();
      if ($links) :
        $numLinks = count($links);
        $numCols = ceil($numLinks / $numRows);
        $linkNdx = 0;
        for ($rows = 0; ($rows < $numRows) && ($linkNdx < $numLinks); $rows++) :
          ?>
          <tr>
            <?php
              for ($cols = 0; ($cols < $numCols) && ($linkNdx < $numLinks); $cols++) :
                $link = $links[$linkNdx];
                $linkNdx++;
                ?>
                <td>
                  <div class="quickLaunge">
                    <a href="<?php echo url_for($link['url']); ?>" target="<?php echo $link['target'] ?>" >
                      
                      <span class="quickLinkText"><?php echo __($link['name']) ?></span>
                    </a>
                  </div>
                </td>
              <?php endfor; ?>
            </tr>
          <?php endfor;
        else :
          ?>
          <tr><td><?php echo __('No Links'); ?></td></tr>
        ?>
      </table>
    </div>

<script type="text/javascript">
  $(document).ready(function () {
    // hover color change effect
    $("#dashboard-quick-launch-panel-slider li").hover(function () {
      $(this).animate({opacity: 0.90}, 100, function () {
        $(this).animate({opacity: 1}, 0);
      });
    });
    // Trigger mouse move event over the 'menu_holder'.
    $("#dashboard-quick-launch-panel-menu_holder").mousemove(function (e) {
      // Enable scroll function only when the height of the 'slider' or menu is greater than the 'menu_holder'.
      if ($(this).height() < $("#dashboard-quick-launch-panel-slider").height()) {
        // Calculate the distance value from the 'menu_holder' y pos and page Y pos.
        var distance = e.pageY - $(this).offset().top;
        // Get the percentage value with respect to the Mouse Y on the 'menu_holder'.
        var percentage = distance / $(this).height();
        // Calculate the new Y position of the 'slider'.
        var targetY = -Math.round(($("#dashboard-quick-launch-panel-slider").height() - $(this).height()) * percentage);
        // With jquery easing funtion from easing plugin.
        $('#dashboard-quick-launch-panel-slider').animate({top: [targetY + "px", "easeOutCirc"]}, {queue: false,
          duration: 200});
        // Without easing function. by default jquery have 'swing'.
        // $('#slider').animate({top: [targetY+"px", "easeOutCirc"]}, { queue:false, duration:200 });
      }
    });
  });
</script>

```

Figure 29:Dashboard Quick Lunch code sample

Add employee Code Sample

```

<ol>
  <li class="line_nameContainer">
    <label for="Full_Name" class="hasTopFieldHelp"><?php echo __('Full Name'); ?></label>
    <ol class="fieldsInLine">
      <li>
        <div class="fieldDescription"><em>*</em> <?php echo __('First Name'); ?></div>
        <?php echo $form['txtEmpFirstName']->render(array("class" => "block default editable",
          "maxlength" => 30, "title" => __('First Name'))); ?>
      </li>
      <li>
        <div class="fieldDescription"><?php echo __('Middle Name'); ?></div>
        <?php echo $form['txtEmpMiddleName']->render(array("class" => "block default editable",
          "maxlength" => 30, "title" => __('Middle Name'))); ?>
      </li>
      <li>
        <div class="fieldDescription"><em>*</em> <?php echo __('Last Name'); ?></div>
        <?php echo $form['txtEmpLastName']->render(array("class" => "block default editable",
          "maxlength" => 30, "title" => __('Last Name'))); ?>
      </li>
    </ol>
  </li>
</ol>

<fieldset>

  <ol>
    <li>
      <?php echo $form['photofile']->renderLabel(__('Select a Photograph')); ?>
      <?php echo $form['photofile']->render(); ?>
      <label class="fieldHelpBottom"><?php echo __(\CommonMessages::FILE_LABEL_IMAGE); ?>.
      <?php echo __('Recommended dimensions: 200px X 200px'); ?>
    </li>
  </ol>

  <p>
    <?php if ($photographPermissions->canUpdate()) : ?>
      <input type="button" id="btnSave" value="<?php echo __("Upload"); ?>" />
    <?php endif; ?>
    <?php if ($photographPermissions->canDelete() && ($showDeleteButton == 1)) : ?>
      <input type="button" class="delete" id="btnDelete" value="<?php echo __("Delete"); ?>"
        data-toggle="modal" data-target="#deleteConfModal" />
    <?php endif; ?>
  </p>
</fieldset>

```

Figure 30: Add employee Code Sample

Add user Code Sample

```
<div class="head">
  <h1 id="UserHeading"><?php echo __("Add User"); ?></h1>
</div>

<div class="inner">

  <?php include_partial('global/flash_messages'); ?>

  <?php if ($employeeCount > 0) : ?>
    <form name="frmSystemUser" id="frmSystemUser" method="post" action="" >

      <fieldset>

        <ol>
          <?php echo $form->render(); ?>

          <li class="required">
            <em>*</em> <?php echo __ (CommonMessages::REQUIRED_FIELD); ?>
          </li>
        </ol>

        <p>
          <input type="button" class="addbutton" name="btnSave" id="btnSave" value="<?php echo __("Save"); ?>"/>
          <input type="button" class="reset" name="btnCancel" id="btnCancel" value="<?php echo __("Cancel"); ?>"/>
        </p>
      </fieldset>
    </form>
  <?php endif ?>
</div>
```

Figure 31: Code Sample for Add user

Assign Leave Code Sample

```
<div class="box" id="assign-leave">
  <div class="head">
    <h1><?php echo __('Assign Leave') ?></h1>
  </div>
  <div class="inner">
    <?php include_partial('global/flash_messages'); ?>
    <?php if ($form->hasErrors()): ?>
      <?php include_partial('global/form_errors', array('form' => $form)); ?>
    <?php endif; ?>
    <?php if (count($leaveTypes) > 0) : ?>
      <form id="frmLeaveApply" name="frmLeaveApply" method="post" action="">
        <fieldset>
          <ol>
            <?php echo $form->render(); ?>
            <li class="required new">
              <em>*</em> <?php echo __ (CommonMessages::REQUIRED_FIELD); ?>
            </li>
          </ol>
          <p>
            <input type="button" id="assignBtn" value="<?php echo __("Assign") ?>"/>
          </p>
        </fieldset>
      </form>
    <?php endif ?>
  </div> <!-- inner -->
</div> <!-- assign leave -->
```

Figure 32: Code Sample for assign leave

Attendance Summary Code Sample

```

<?php use_stylesheets_for_form($form) ?>
<?php use_javascripts_for_form($form) ?>
<?php if($attendancePermissions->canRead()){?>
<div class="box" id="attendance-summary">
    <div class="head"><h1><?php echo __('Attendance Total Summary Report'); ?></h1></div>
    <div class="inner">
        <?php include_partial('global/flash_messages'); ?>

        <form action="<?php echo url_for('time/displayAttendanceSummaryReport?reportId=' . $reportId); ?>"
            id="attendanceTotalSummaryReportForm" method="post">

            <fieldset>
                <ol>
                    <li>
                        <label><?php echo __('Employee Name') . ' <em>*</em>' ?></label>
                        <?php echo $form['empName']->render(); ?>
                    </li>
                    <li>
                        <label><?php echo __('Job Title') ?></label>
                        <?php echo $form['jobTitle']->renderError() ?><?php echo $form['jobTitle']->render(); ?>
                    </li>
                    <li>
                        <label><?php echo __('Sub Unit') ?></label>
                        <?php echo $form['subUnit']->renderError() ?><?php echo $form['subUnit']->render(); ?>
                    </li>
                    <li>
                        <label><?php echo __('Employment Status') ?></label>
                        <?php echo $form['employeeStatus']->renderError() ?><?php echo $form['employeeStatus']->render(); ?>
                    </li>
                    <li>
                        <label><?php echo __('From') ?></label>
                        <?php echo $form['fromDate']->render(); ?>
                    </li>
                    <li>
                        <label><?php echo __('To') ?></label>
                        <?php echo $form['toDate']->render(); ?>
                    </li>
                    <li class="required">
                        <em>*</em> <?php echo __('CommonMessages::REQUIRED_FIELD'); ?>
                    </li>
                </ol>

                <p>
                    <input type="submit" id="viewbutton" value="<?php echo __('View') ?>" />
                </p>

                <?php echo $form->renderHiddenFields(); ?>
            </fieldset>
        </form>
    </div>
</div>
</div>

```

Figure 33: Code Sample for attendance summary

Performance Tracking Code Sample

```
class viewEmployeePerformanceTrackerListAction extends viewPerformanceTrackerListAction {

    public function execute($request) {
        $page = $request->getParameter('hdnAction') == 'search' ? 1 : $request->getParameter('pageNo', 1);
        $this->setPageNumber($page);
        $listTitle = __('Performance Trackers');
        $this->setTitle($listTitle);
        $this->setPerformanceTrackList();
        $this->setTrackerListCount();
        $initialAction = 'viewEmployeePerformanceTrackerList';
        $this->setInitial @param \type $request
        parent::execute($request);
        $this->setTemplate('viewPerformanceTrackerList');
    }

    public function setPerformanceTrackList() {
        $auth = Auth::instance();
        $loggedInEmpNumber = $auth->getEmployeeNumber();
        $isAdmin = $auth->hasRole(Auth::ADMIN_ROLE);

        $searchParameter = array('page' => $this->getPageNumber(), 'limit' => sfConfig::get('app_items_per_page'), 'reviewerId'
=> $loggedInEmpNumber);

        if ($isAdmin) {
            $this->performanceTrackList = $this->getPerformanceTrackerService()->getPerformanceTrackList($searchParameter);
        } else {
            $this->performanceTrackList = $this->getPerformanceTrackerService()->getPerformanceTrackListByReviewer
($searchParameter);
        }
    }
}
```

Add Job Vacancy Code Sample

```

<form name="frmCandidateVacancyStatus" id="frmCandidateVacancyStatus" method="post">
    <?php echo $form['_csrf_token']; ?>
    <fieldset>
        <ol>
            <li>
                <label class="firstLabel"><?php echo __('Candidate Name'); ?></label>
                <label class="secondLabel"><?php echo htmlspecialchars($form->candidateName); ?></label>
            </li>
            <li>
                <label class="firstLabel"><?php echo __('Vacancy'); ?></label>
                <label class="secondLabel"><?php echo htmlspecialchars($form->vacancyName); ?></label>
            </li>
            <li>
                <label class="firstLabel"><?php echo __('Hiring Manager'); ?></label>
                <label class="secondLabel"><?php echo htmlspecialchars($form->hiringManagerName); ?></label>
            </li>
            <li>
                <label class="firstLabel"><?php echo __('Current Status'); ?></label>
                <label class="secondLabel"><?php echo __($form->currentStatus); ?></label>
            </li>
            <?php if ($form->id > 0): ?>
                <li>
                    <label class="firstLabel"><?php echo __('Performed Action'); ?></label>
                    <label class="secondLabel"><?php echo __($form->performedActionName); ?></label>
                </li>
                <li>
                    <label class="firstLabel"><?php echo __('Performed By'); ?></label>
                    <label class="secondLabel"><?php echo htmlspecialchars($form->performedBy); ?></label>
                </li>
                <li>
                    <label class="firstLabel"><?php echo __('Performed Date'); ?></label>
                    <label class="secondLabel"><?php echo $form->performedDate; ?></label>
                </li>
            <?php endif; ?>
            <li>
                <?php echo $form['notes']->renderLabel(__('Notes')); ?>
                <?php echo $form['notes']->render(array("class" => "formInputText", 'max_length' => 2147483647,
                    "cols" => 40, "rows" => 9)); ?>
            </li>
        </ol>
        <p>
            <?php if($candidatePermissions->canUpdate()){?>
                <?php if (!($form->id > 0)): ?>
                    <input type="button" class="savebutton" name="actionBtn" id="actionBtn" value="<?php echo __
                        ($form->actionName); ?>" />
                <?php elseif ($enableEdit): ?>
                    <input type="button" class="savebutton" name="btnSave" id="btnSave" value="<?php echo __
                        ('Edit'); ?>" />
                <?php endif; ?>
            <?php }?>
            <input type="button" class="cancelbutton" name="cancelBtn" id="cancelBtn" value="<?php echo __
                ('Back'); ?>" />
        </p>
    </fieldset>
</form>

```

Figure 34: Code Sample for Add Job Vacancy

Key Performance indicators

```
protected function getFormLabels() {

    $requiredMarker = '&nbsp;<span class="required">*</span>';
    $labels = array(
        'jobTitleCode' => __('Job Title') . $requiredMarker,
        'keyPerformanceIndicators' => __('Key Performance Indicator') . $requiredMarker,
        'minRating' => __('Minimum Rating') . $requiredMarker,
        'maxRating' => __('Maximum Rating') . $requiredMarker,
        'makeDefault' => __('Make Default Scale')
    );
    return $labels;
}

<div class="head">
    <h1 id="PerformanceHeading"><?php echo __("Key Performance Indicator"); ?></h1>
</div>

<div class="inner">
    <?php include_partial('global/flash_messages'); ?>

    <form name="searchKpi" id="searchKpi" method="post" action="" >

        <fieldset>

            <ol>
                <?php echo $form->render(); ?>

                <li class="required">
                    <em>*</em> <?php echo __('CommonMessages::REQUIRED_FIELD'); ?>
                </li>
            </ol>

            <p>
                <input type="button" class="addbutton" name="saveBtn" id="saveBtn" value="<?php echo __("Save"); ?>"/>
                <input id="btnCancel" class="reset" type="button" value="<?php echo __("Cancel"); ?>"
                    name="btnCancel">
            </p>

        </fieldset>

    </form>
</div>
```

Figure 35: code sample for Key Performance indicators

Set Company General Information Code sample

```

<div class="head">
|   <h1 id="genInfoHeading"><?php echo __('General Information'); ?></h1>
</div>

<div class="inner">

    <?php include_partial('global/flash_messages', array('prefix' => 'generalinformation')); ?>

    <form name="frmGenInfo" id="frmGenInfo" method="post" action="<?php echo url_for('admin/
viewOrganizationGeneralInformation'); ?>" class="clickToEditForm">

        <?php echo $form['_csrf_token']; ?>

        <fieldset>

            <ol>

                <li>
                    <?php echo $form['name']->renderLabel(__('Organization Name')) . ' <em>*</em>'; ?>
                    <?php echo $form['name']->render(array("maxlength" => 100)); ?>
                </li>

                <li>
                    <?php echo $form['taxId']->renderLabel(__('Tax ID')); ?>
                    <?php echo $form['taxId']->render(array("maxlength" => 30)); ?>
                </li>

                <li>
                    <label><?php echo __("Number of Employees") ?></label>
                    <span id="numOfEmployees"><?php echo $employeeCount; ?></span>
                </li>
                <li>
                    <?php echo $form['registraionNumber']->renderLabel(__('Registration Number')); ?>
                    <?php echo $form['registraionNumber']->render(array("maxlength" => 30)); ?>
                </li>
            </ol>

            <ol>

                <li>
                    <?php echo $form['phone']->renderLabel(__('Phone')); ?>
                    <?php echo $form['phone']->render(array("maxlength" => 30)); ?>
                </li>

                <li>
                    <?php echo $form['fax']->renderLabel(__('Fax')); ?>
                    <?php echo $form['fax']->render(array("maxlength" => 30)); ?>
                </li>

                <li>
                    <?php echo $form['email']->renderLabel(__('Email')); ?>
                    <?php echo $form['email']->render(array("maxlength" => 30)); ?>
                </li>
            </ol>

            <ol>

                <li>
                    <?php echo $form['street1']->renderLabel(__('Address Street 1')); ?>
                    <?php echo $form['street1']->render(array("maxlength" => 100)); ?>
                </li>
            </ol>

```

```

        <?php echo $form['province']->renderLabel(__('State/Province')); ?>
        <?php echo $form['province']->render(array("maxlength" => 30)); ?>
    </li>

    <li>
        <?php echo $form['zipCode']->renderLabel(__('Zip/Postal Code')); ?>
        <?php echo $form['zipCode']->render(array("maxlength" => 30)); ?>
    </li>

    <li>
        <?php echo $form['country']->renderLabel(__('Country')); ?>
        <?php echo $form['country']->render(array("class" => "drpDown", "maxlength" => 30)); ?>
    </li>

    <li class="largeTextBox">
        <?php echo $form['note']->renderLabel(__('Note')); ?>
        <?php echo $form['note']->render(array("class" => "txtArea", "maxlength" => 255)); ?>
    </li>

    <li class="required line">
        <em>*</em> <?php echo __(CommonMessages::REQUIRED_FIELD); ?>
    </li>
</ol>

<p>
    <input type="button" class="addbutton editButton" name="btnSaveGenInfo" id="btnSaveGenInfo"
    value="<?php echo __("Edit"); ?>"/>
</p>

class OrganizationService extends BaseService {

    private $organizationDao;
    public function __construct() {
        $this->organizationDao = new OrganizationDao();
    }

    public function getOrganizationDao() {
        return $this->organizationDao;
    }

    public function setOrganizationDao(OrganizationDao $organizationDao) {
        $this->organizationDao = $organizationDao;
    }

    /**
     * Get organization general information
     *
     * @version
     * @return Organization $organization
     */
    public function getOrganizationGeneralInformation(){
        return $this->getOrganizationDao()->getOrganizationGeneralInformation();
    }
}

```

Figure 36: Code sample Set Company General Information

10.2 Possible problem breaks down

Several problems came while developing this application. To make the development of the DCL-HRM system easier and more efficient, the entire project must be divided into small parts. In the below there are some possible problem breakdowns for DCL-HRM project.

- Design Database and analysis
- Develop Admin panel
- Develop staff panel
- leave module Development
- Dashboard management

Design Database and analysis

- Analysis business Requirements
- Define and analyses the features of business items.
- Complete the normalizing procedure.
- Create entity relationship diagram.
- System database schema design.

Admin panel Development

- Create admin page
- Develop admin functionality
- Integrate sub functionality of Admin
- User management function development.

Staff panel Development

- Front-end design
- Employee assign method development
- Develop employee Configuration System

Leave module Development

- Analysis organization leave system.
- Leave functionality analysis and design front-end.
- Develop leave application function.

- Assign leave method and approval method development

Dashboard management

- Design dashboard page according to organization requirements.
- Show quick lunch menu bar.
- Direct employee leave approval method.
- Render database data to show visual analysis

Chapter 11 - Testing

11.1 Test Case

The testing phase is defined as a piece of concepts that a tester uses to determine whether or not an application software satisfies the demands of the customer. Preconditions, input conditions, case name and expected result test case's design incorporates all of these elements. A test case measure functionality across a set of phases or situations in order to validate the predicted outcome (Hamilton, 2022). In the following are three test case for DCL-HRM software.

Unit Test

Name of Test case	Unit Test		
Test Class			
Test Explanation			
Data Source	Test Steps	Expected Result	Actual Result

Module Test

Name of Test case	Module Test		
Test Class			
Test Explanation			
Data Source	Test Steps	Expected Result	Actual Result

Integration Test

Name of Test case	Integration Test
Test Class	
Test Description	

Data Source	Test Steps	Expected Result	Actual Result

11.2 Unit Test

Unit Test 1

Test case Name	Unit Test		
Test Class	Employee Registration Controller		
Test Description	Employee Password validation for add employee		
Data Source	Test Steps	Expected Result	Actual Result
Employee Entry	1. Fill all fields but password and confirm password are not same 2. Click Save	An error message will show in the below of password field.	Show "Passwords do not match" error message.

Table 10: Unit Test - Test Case 1

Add Employee

* First Name

Middle Name

* Last Name

Full Name

Semanto

Fokir

Employee Id

0009

Photograph

Browse...

135777301_3...6215_n.jpg

Accepts jpg, .png, .gif up to 1MB. Recommended dimensions: 200px X 200px

Create Login Details

☒

User Name *

semanto

Password *

.....

Strongest

For a strong password, please use a hard to guess combination of text with upper and lower case characters, symbols and numbers

Confirm Password *

.....

Passwords do not match

Status *

Enabled

* Required field

Save

Figure 37: Unit Test - Test Result 1

Unit Test 2

Test case Name	Unit Test		
Test Class	Admin or Employee login Controller		
Test Description	Approve or Cancel Employee`s pending leave		
Data Source	Test Steps	Expected Result	Actual Result
Admin Entry	1. Login in with admin username and password. 2. Go to leave list in leave module	Show all pending leave request and show action type to cancel or approve.	Showing Pending leave list of individual employees and able to take action.

Table 11: Unit Test - Test Case 2

Leave List

From

2022-01-01

To

2023-12-31

Show Leave with Status

All ☐

Rejected ☐

Cancelled ☐

Pending Approval ☒

Scheduled ☐

Taken ☐

Employee

Type for hints...

Sub Unit

All

Include Past Employees

☐

Search

Reset

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	89.00	4.00	Pending Approval(4.00)		Select Action Select Action Approve Cancel Reject
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	89.00	4.00	Pending Approval(4.00)		

Save

Figure 38: Unit Test - Test Result2

11.3 Module Test

Module Test 1

Test case Name	Module Test		
Test Class	Admin or Employee Controller		
Test Description	As an admin, add new system user without fill input field		
Data Source	Test Steps	Expected Result	Actual Result
Admin Entry	1. Login in as Admin 2. Go to add user. 3. Don`t fill any field. 4. Click save	Occur error message for all input field. Hints all fields to fill	All star mark fields are red mark and show a error message for all required fields.

Table 12: Module Test - Test Case 1

Add User

User Role *

ESS

Employee Name *

Type for hints...

Username *

Employee does not exist

Status *

Required

Enabled

Password *

Required

Confirm Password *

* Required field

Save

Cancel

For a strong password, please use a hard to guess combination of text with upper and lower case characters, symbols and numbers

Figure 39: Module Test - Test Result 1

Module Test 2

Test case Name	Module Test		
Test Class	Organization Information Controller		
Test Description	Update organization general information with invalid data format.		
Data Source	Test Steps	Expected Result	Actual Result
Admin Entry	1. Login in as Admin 2. Go to Admin > organization> general Information. 3. Fill email with Invalid email.	Show an error message in email field and provide a suggestion	Email is not valid and showing expected format.

Table 13: Module Test -Test Case 2

General Information

Organization Name *

Number of Employees
6

Phone

Email

Expected format: admin@example.com

Address Street 1

City

Zip/Postal Code

Note

* Required field

Save

Figure 40: Module Test-2 Test Result 2

11.4 Integration Test

Integration Test

Test case Name	Integration Test		
Test Class	Login Controller		
Test Description	Login and redirect to dashboard page		
Data Source	Test Steps	Expected Result	Actual Result

User Entry	1. Go to login page 2. Fill user's username and password 3. Click login button	Loading and get inter the system. Show dashboard page.	Successfully Login and showing the dashboard page
------------	--	--	---

Table 14: Integration Test- Test Case 1

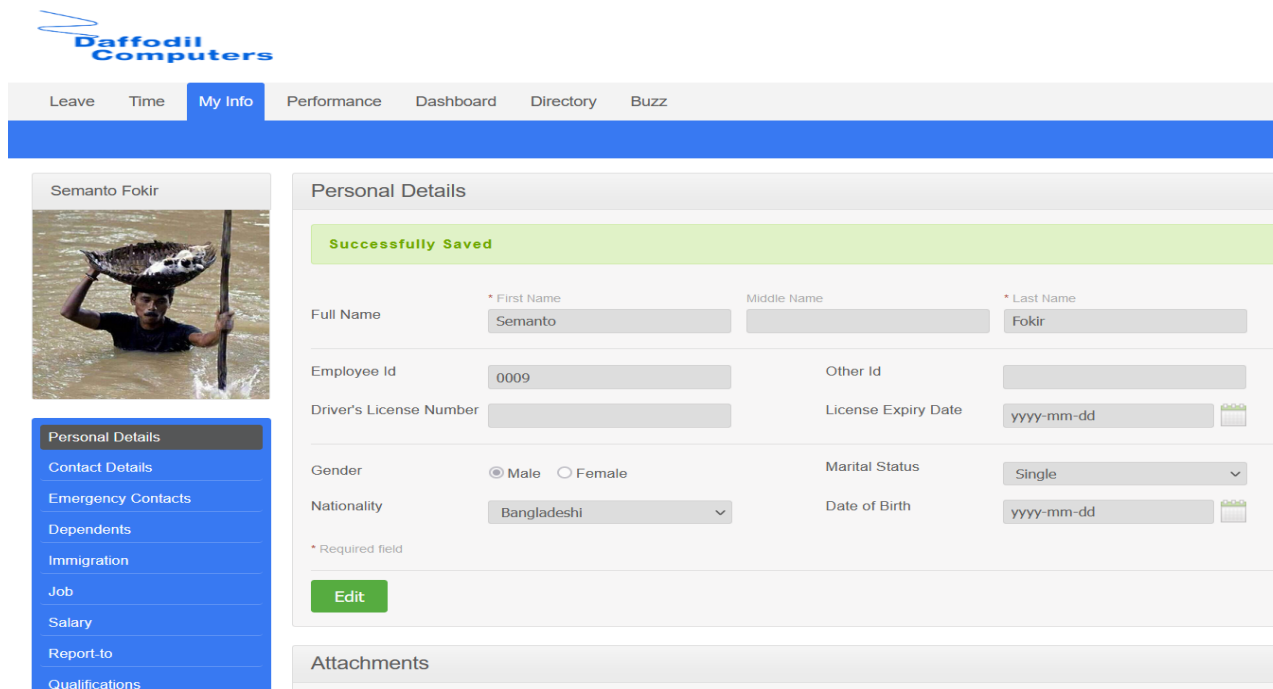


Figure 41: Integration Test- Test Result 1

Integration Test 2

Test case Name	Integration Test		
Test Class	Employee Information Controller		
Test Description	Edit employee personal information and update it		
Data Source	Test Steps	Expected Result	Actual Result
Employee/admin Entry	1. Login as an admin or employee 2. Go my info 3. Click edit button 4. Fill all the required fields 5. Click login button	Loading highest 3 second and show successfully added	Successfully Loding and update employee information. And Showing successful message.

Table 15: Integration Test - Test Case 2



The screenshot displays the 'My Info' section of the Daffodil Computers system. A green banner at the top of the 'Personal Details' form indicates 'Successfully Saved'. The form contains the following fields and values:

- Full Name:** First Name: Semanto, Middle Name: (empty), Last Name: Fokir
- Employee Id:** 0009
- Other Id:** (empty)
- Driver's License Number:** (empty)
- License Expiry Date:** yyyy-mm-dd
- Gender:** Male (selected), Female
- Marital Status:** Single
- Nationality:** Bangladeshi
- Date of Birth:** yyyy-mm-dd

A sidebar on the left lists navigation options: Personal Details, Contact Details, Emergency Contacts, Dependents, Immigration, Job, Salary, Report-to, and Qualifications. An 'Edit' button is visible at the bottom of the form.

Figure 42: Integration Test - Test Result 2

Chapter 12 - Implementation

12.1 Training

Training increases the user's value in the organization, which enhances employee satisfaction. The module training becomes a trusted resource of software information and prepared to support others when needed. It might be difficult to introduce new technologies for organization. There will be challenges, questions, learning curves, and potential opposition. Lacking of effective training, a company's employees don't able to do their best. The following chart describes the training procedures of DCL-HRM:

SL	Training Module	User	Training Scope	Time Period
1	Admin	Admin	Train on User, Job, Organization, Qualifications, Nationalities, Corporate, Branding, Configuration Management	1 hour
2	Personal Information Module (PMI)	Admin	Knowing about Configuration on Optional, Custom, Data Import, Reporting Methods, Termination Reasons, Employee List, Add Employee and Reports	0.5 hour
3	Leave	Admin and employee	Apply Leave, My Leave list, Entitlements management, Leave Reports, Leave Configure, Assign Leave, etc.	0.5 hours
4	Time	Admin and employee	Admin and Employee Timesheets management, Attendance management, Project Information configure	1 hour
5	Recruitment	Admin	Process of Candidates selection and Vacancies management	0.4 hour
6	My Info	Admin and employee	Personal Information Management	0.5 hour

7	Performance	Admin	User will Configure KPIs, Manage Reviews, Trackers	0.5 hour
8	Dashboard	Admin and employee	How to use dashboard, what is the functionality of this and its meaning	0.5 hour
9	Directory	Admin and employee	How to create employee personal details that could be accessible by other staff inside the business to improve effective communication.	0.5 hour
10	Maintenance	Admin	Train on how to open new vacancies and how candidates will be hired. Maintenance the vacancies procedure.	0.4 hour
11	Buzz	Admin and employee	How to communicate each other inside the system and share opinion.	0.2 hour

Table 16: User Training

12.2 Implementation Scheme

12.2.1 Big Bang

This strategy effectively disables one system and activates another. The entire organization migrates to the new application at the same time, with no phase-out of the old one. It will be the same as turning off your old machine and then instantly booting up your new one. A large-scale deployment will need extensive preparation. The concept behind a technique is everyone in the organization understands about the updated software at the same timeframe. Big Bang implementation is the best choose because, faster implementation timeframe, lower-cost, entire system is wired together, update new type of system. In the below there are some steps of big bang implementation:

- Mind data configuration and migration
- Lots of preparation
- Plan of training
- Test before implementation

Chapter 13 - Critical Appraisal and Evaluation

13.1 Objective that could be met

In the below, there are some objectives listed of DCL-HRM project which has been meet successfully:

13.1.1 Objective-1

Achievement rate and others

Responsible for respond to company's demands whatever of size is. It is inexpensive and simple to use. Businesses may use and configure it to manage the whole workforce and its many components.

13.1.2 Objective-2

Achievement rate and others

Users of DCL-HRM receive a full set of modules, including time and attendance, Essential HR, recruitment, performance evaluations, leave management and many others. Real estate, educational, finance, insurance, medicines and other industries may all benefit from this HRM software.

13.1.3 Objective-3

Achievement rate and others

It enables an organization to give an innovative platform to both large and small organizations. Employees can also use a self-service module. Customer service that is both capable and skilled is also available to assist businesses.

13.1.4 Objective-4

Achievement rate and others

Companies can also request full adaptations, specialized training programs, and add-ons. DCL-HRM may be adjusted at every level, including theme changes, source code modifications and email messages.

13.1.5 Objective-5

Achievement rate and others

It allows distinct groups of users to have different levels of system access and permissions. The PIM feature enables companies to record personnel information in such a way for auditing and reporting. It also includes capabilities for managing staff leaves and maintain staff tracking of time off requests.

13.2 How much better could have been done

Staff activity tracking such as promotions, increments and so on. Some UI/ UX issues with this product. The system is difficult to utilize for timecard tracking. It could be more efficient to assess the success factor against each defined aim if it's one of the established objectives. Furthermore, any issues that may arise once the system is launched may be solved in the future.

13.3 How improved the features of the result

- It covers most of the essential functions to create a staff directory and application tracking.
- premium quality customer service, included all of the organization's human resource management functions such as payroll, performance management, time, attendance, training, development and recruiting
- DCL-HRM is utilized for the majority of HR-related operations such as time tracking, leave application employee performance review and so on.
- Employee information and leave management are managed centrally.
- The system is simply configurable, and it is possible to verify an employee's data, accept leave requests and so on with a single click.
- Dashboard that provides the user with a single window for merging data from many elements.

Chapter 14 - Conclusion

14.1 Summary of this project

DCL-HRM offers a world-class experience and everything you and your team require to be the HR hero. DCL-HRM is a Web based, user friendly and resource management tool for any organization that manages a number of human resources activities with the ability to support, customization options host services and also modules for re-engineering and affiliating user HR processes with organizational goals. Personal Data Management, Employee Self-Management, Leave Control, Time and Attendance Monitoring and Recruitment are all services provided by DCL-HRM. The system is written in PHP and supported by HTML, CSS, JavaScript, and jQuery. The documents contain all of the necessary diagrams and charts.

14.2 Goal of the project

Because of remote working worker inspired to work from home rather to present at the office, DCL-HRM will assist an organization to easily monitoring their employee objectives during this Covid-19 situation. Most workers now work from home. it will be extremely difficult for their managers to evaluate the progress of their team members. DCL-HRM solves this point. With just one tool, it is quite easy for an employee to concentrate on HR matters. It is important for us as employees to be able to track our success in the same location. The primary purpose of any HRM solution is to keep the company's human resource functions running smoothly. However, throughout the installation process, your business may experience a temporary disruption of the present system while your internal Information Technology staff completes a new implementation. Every HR professional will tell you that not getting access to digital personnel records and other HR data is extremely unpleasant. This is a service provided by DCL-HRM that may help the process run much more smoothly and with less downtime of HR systems.

14.3 My Experience

While developing the system, I faced a variety of challenges, which I solved acquiring valuable expertise. I learned how to manage a full project and how to meet all of the project's objectives in a short period of time, which provided me with invaluable experience. To establish this system in place, I read a lot of study papers. Bug repair was the most tough task. Finally, after overcoming all challenges, I was able to build the DCL-HRM system.

Appendices

User Guide:

System Login



Figure: User (Admin) Login Page

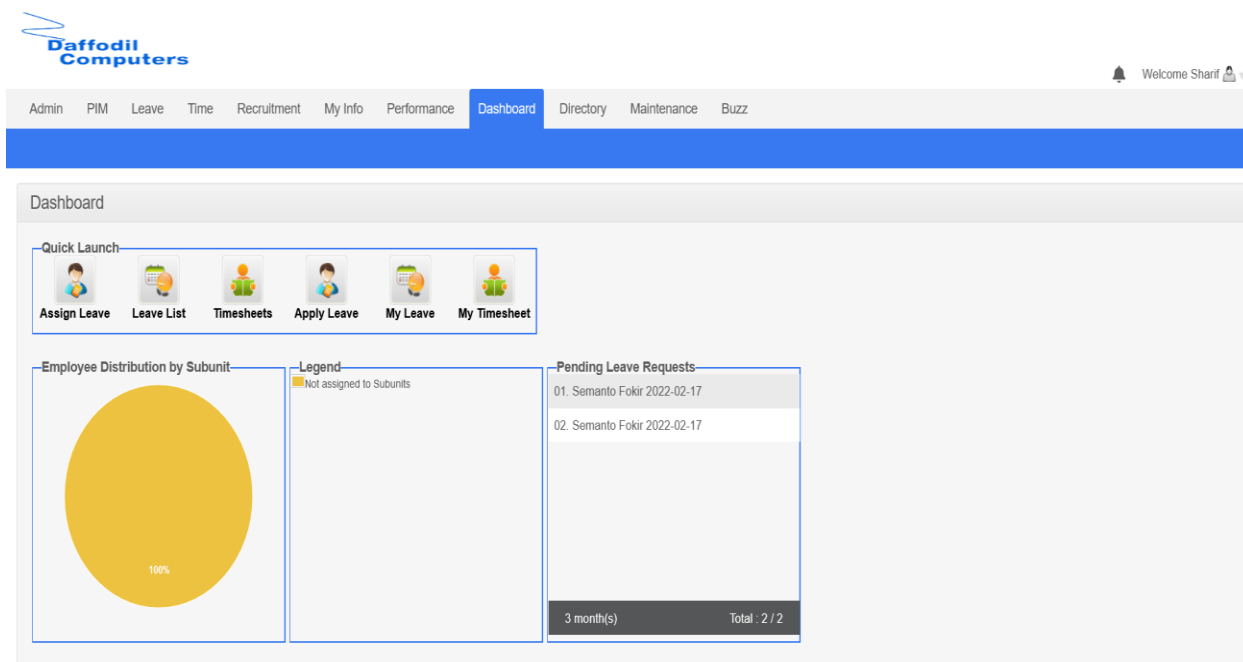


Figure: User login page and successfully get into dashboard page

Employee Dashboard

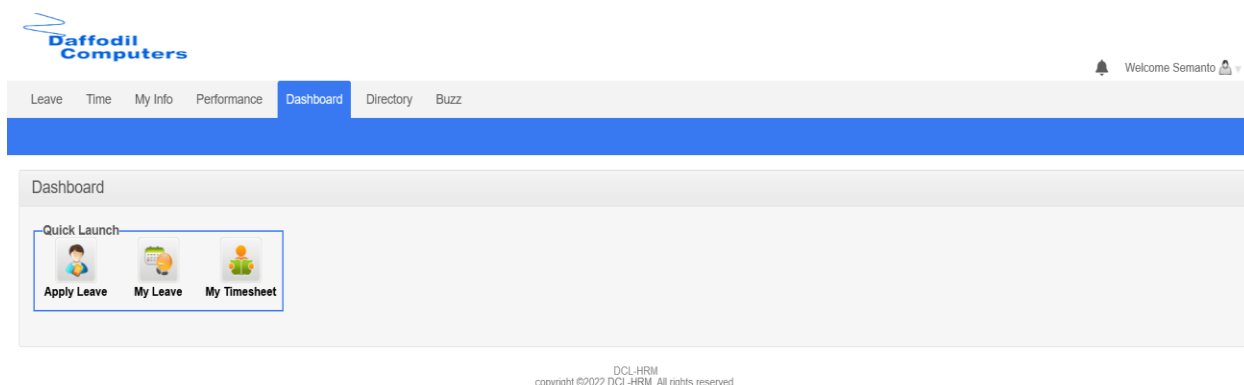


Figure: User (employee) login page and successfully get into dashboard page

Add System User

The screenshot shows the 'Add User' form. It has the following fields:

- User Role: ESS (dropdown)
- Employee Name: Atish Day (text input)
- Username: atish (text input)
- Status: Enabled (dropdown)
- Password: [masked] (text input) with a 'Strongest' hint: 'For a strong password, please use a hard to guess combination of text with upper and lower case characters, symbols and numbers.'
- Confirm Password: [masked] (text input)

 There are 'Save' and 'Cancel' buttons at the bottom. The user is logged in as 'Sharif'. At the bottom, there's a copyright notice: 'DCL-HRM copyright ©2022 DCL-HRM. All rights reserved.'

The screenshot shows the 'System Users' table. It has the following columns: Username, User Role, Employee Name, and Status. The user 'atish' is highlighted in red.

Username	User Role	Employee Name	Status
anamika	ESS	Anamika Ana	Enabled
ashik	Admin	Sharif Ashik	Enabled
asifahmed	ESS	Asif Ahmed	Enabled
atish	ESS	Atish Day	Enabled
semanto	ESS	Semanto Fokir	Enabled
shawon	ESS	Shahinur Shawon	Enabled
shorifulislam	ESS	Shoriful Islam	Enabled

Figure: Add employee and successfully added

Add Job Category

Name *

* Required field

Job Categories

☒	Job Category
☐	<u>Craft Workers</u>
☐	<u>Laborers and Helpers</u>
☐	<u>Office and Clerical Workers</u>
☐	<u>Officials and Managers</u>
☐	<u>Operatives</u>

Successfully Saved

☒	Job Category
☐	<u>Craft Workers</u>
☐	<u>IT Officer</u>
☐	<u>Laborers and Helpers</u>
☐	<u>Office and Clerical Workers</u>
☐	<u>Officials and Managers</u>
☐	<u>Operatives</u>
☐	<u>Professionals</u>
☐	<u>Sales Workers</u>
☐	<u>Service Workers</u>
☐	<u>Technicians</u>

Figure: Add job category of an organization

Add Job Title

Job Title *

Job Description

Job Specification No file selected.
Accepts up to 1MB

Note

* Required field

Job Titles

☒	Job Title	Job Description
☐	<u>IT Officer</u>	Provide IT services
☐	<u>Manager</u>	Project Management of a company
☐	<u>Sales officer</u>	
☐	<u>Web Developer</u>	Full Stack Web Developer

Figure: Create job title and successfully added

User Management * Job Organization * Qualifications * Nationalities Corporate Branding Configuration *

Edit Pay Grade

Name *

* Required field

Add Currency

Currency *

Minimum Salary

Maximum Salary

* Required field

Assigned Currencies

Currency	Minimum Salary	Maximum Salary
No Records Found		

Assigned Currencies

☐	Currency	Minimum Salary	Maximum Salary
☐	Bangladeshi Taka	60,000.00	80,000.00

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Figure: Create Pay Grade, Currency Type and Assign Currency

Add Work Shift

Shift Name *

Work Hours * From To Duration

Available Employees

- Asif Ahmed
- Anamika Ana
- Sharif Ashik
- Atish Day
- Shoriful Islam
- Shahinur Shawon

Assigned Employees

- Semanto Fokir

[Add >>](#)
[Remove <<](#)

* Required field

Work Shifts

☐	Shift Name	From	To	Hours Per Day
No Records Found				
☐	Morning	09:00	14:00	5.00

Figure: Create Work Shift and Assign to shift

General Information

Organization Name *

Sharif IT Solution

Tax ID

Number of Employees

7

Registration Number

Phone

01944896737

Fax

Email

sharifashik591@gmail.com

Address Street 1

46/1 sukrabad

Address Street 2

City

Dhaka

State/Province

Bangladesh

Zip/Postal Code

1206

Country

Bangladesh

Note

Owner of the organization

* Required field

Edit

Figure: Configure Company General Information

Edit Skill

Name *

Python

Description

Python with full stack development

* Required field

Save

Cancel

Skills

Name	Description
Python	Python with full stack development

Figure: Add Skills of a Company

Corporate Branding

Primary Color

Secondary Color

Primary Button Color

Secondary Button Color

Client Logo

Browse... No file selected.

Login Banner

Browse... No file selected.

Social Media Images

☒

Publish

Reset to Default

Figure: Color Configuration of the System

Admin **PIM** Leave Time Recruitment My Info Performance Dashboard Directory Maintenance Buzz

Configuration ▾ **Employee List** Add Employee Reports

Employee Information ▲

Add **Delete**

☐	ID	First (& Middle) Name	Last Name	Job Title	Employment Status	Sub Unit	Supervisor
☐	0007	Asif	Ahmed				
☐	0005	Anamika	Ana				
	0001	Sharif	Ashik				
☐	0011	Atish	Day				
☐	0009	Semanto	Fokir				
☐	0006	Shoriful	Islam				
☐	0002	Shahinur	Shawon				

Figure: Employee List

Configuration ▾ **Employee List** Add Employee Reports

Add Employee

Full Name * First Name Middle Name * Last Name

Dwip Khan

Employee Id

Photograph 93b37743f86...a95ef19.jpg
Accepts jpg, .png, .gif up to 1MB. Recommended dimensions: 200px X 200px

Create Login Details ☒

User Name *

Password * **Strongest**
For a strong password, please use a hard to guess combination of text with upper and lower case characters, symbols and numbers

Confirm Password *

Status * ▾

* Required field

Save

Figure: Add Employee with login details

Apply My Leave Entitlements ▾ Reports ▾ **Configure ▾** Leave List Assign Leave

Add Leave Type

Name *

Is entitlement situational ☐

* Required field

Figure: Create Leave Type

Leave Types

☐	Leave Type
☐	<u>Bereavement</u>
☐	<u>Marriage</u>
☐	<u>Maternity</u>
☐	<u>Paternity</u>
☐	<u>Personal Issue</u>
☐	<u>Sick</u>

Figure: All type of Leave

Add Holiday

Name *

Date * 

Repeats Annually ☒

Full Day/Half Day ▾

* Required field

☐	Name	Date	Full Day/Half Day	Repeats Annually
☐	<u>Valentine's Day</u>	2022-02-14	Full Day	Yes

Figure: Assign Holliday

Apply My Leave Entitlements Reports Configure Leave List Assign Leave

Add Leave Entitlement

Add to Multiple Employees ☒ (Matches 8 employees)

Location

Sub Unit

Leave Type *

Leave Period *

Entitlement *

* Required field

Save Cancel

Figure: Configure Leave Entitlement

Apply Leave

Leave Type *

Leave Balance 50.00 [view details](#)

From Date * 

To Date * 

Partial Days

Comment

* Required field

Apply

Figure: Apply For leave

Apply
My Leave
Entitlements
Reports
Configure
Leave List
Assign Leave

My Leave List

From

To

Show Leave with Status
All ☒ Rejected ☒ Cancelled ☒ Pending Approval ☒ Scheduled ☒ Taken ☒

Search Reset

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-15 to 2022-02-21	Sharif Ashik	Bereavement	45.00	5.00	Pending Approval(5.00)	Emergency	Select Action

Save

Figure: My leave List

Leave List

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	139.00	4.00	Pending Approval(4.00)		Approve
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	139.00	4.00	Pending Approval(4.00)		Cancel
2022-02-15 to 2022-02-21	Sharif Ashik	Bereavement	48.00	5.00	Cancelled(3.00), Pending Approval(2.00)	Emergency	Go to Detailed View

Save

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-15 to 2022-02-21	Sharif Ashik	Bereavement	48.00	5.00	Cancelled(3.00), Pending Approval(2.00)	Emergency	Go to Detailed View

Save

Figure: leave List for Select action

Apply My Leave Entitlements ▼ Reports ▼ Configure ▼ Leave List **Assign Leave**

Assign Leave

Employee Name *

Leave Type *

Leave Balance 30.00 [view details](#)

From Date * 

To Date * 

Partial Days

Comment

* Required field

Assign

Figure: Assign Leave by origination

Admin PIM Leave Time **Recruitment** My Info Performance Dashboard

Candidates **Vacancies**

Add Job Vacancy

Job Title *

Vacancy Name *

Hiring Manager *

Number of Positions

Description

Active ☒

☒ Publish in RSS feed(1) and web page(2)

* Required field

1 : RSS Feed URL : <http://localhost/dcl-hrm/dcl-hrm/symfony/web/index.php/recruitmentApply/jobs.rss>

2 : Web Page URL : <http://localhost/dcl-hrm/dcl-hrm/symfony/web/index.php/recruitmentApply/jobs.html>

Save

Figure: Add Vacancy for new position

Add Candidate

* First Name

Middle Name

* Last Name

Full Name

Sagor

Fokir

Email *

abc@gmail.com

Contact No

01900000000

Job Vacancy

IT

Resume

Browse...

7.png

Accepts .docx, .doc, .odt, .pdf, .rtf, .txt up to 1MB

Keywords

Enter comma separated words...

Comment

Date of Application

2022-02-11

Consent to keep data

☐

* Required field

Save

Candidate's History

Performed Date	Description	Details
2022-02-11	Sharif Ashik assigned the job vacancy IT	
2022-02-11	Sharif Ashik added Sagor Fokir	

Figure: Add candidates for further process

Admin
PIM
Leave
Time
Recruitment
My Info
Performance
Dashboard
Directory
Maintenance
Buzz

Sharif Ashik



Personal Details
Contact Details
Emergency Contacts
Dependents
Immigration
Job
Salary
Report-to
Qualifications
Memberships

Personal Details

Full Name

* First Name

Sharif

Middle Name

* Last Name

Ashik

Employee Id

0001

Other Id

Driver's License Number

License Expiry Date

yyyy-mm-dd

Gender

☒ Male
☐ Female

Marital Status

Other

Nationality

Bangladeshi

Date of Birth

1998-11-30

* Required field

Edit

Attachments

Add

Figure: Configure Personal Information

Sharif Ashik



Personal Details

Contact Details

Emergency Contacts

Dependents

Immigration

Job

Salary

Report-to

Qualifications

Memberships

Contact Details

Address Street 1

46/1 sukrabad

Address Street 2

City

Dhaka

State/Province

Bangladesh

Zip/Postal Code

1206

Country

Bangladesh

Home Telephone

Mobile

0194464646

Work Telephone

Work Email

sharifashik591@gmail.com

Other Email

Save

Attachments

Add

Figure: Update contact Details

Sharif Ashik



Personal Details

Contact Details

Emergency Contacts

Dependents

Immigration

Job

Salary

Report-to

Qualifications

Memberships

Add Work Experience

Company *

DCL

Job Title *

Jr software Developer

From

2022-02-17

To

2022-02-11

Comment

To date should be after From date

* Required field

Save

Cancel

Work Experience

Company	Job Title	From	To	Comment
DCL	Jr software Developer	2021-07-21	2022-02-09	

Figure: Add Work Experience

Add Education

Level *

Bsc

Institute

DIU

Major/Specialization

Year

2022

GPA/Score

3.50

Start Date

2018-02-27

End Date

2022-02-13

* Required field

Save

Cancel

Level	Year	GPA/Score
Bsc	2022	3.50

Figure: Add Education

Add Skill

Skill *

C

Years of Experience

3

Comments

* Required field

Save

Cancel

Skill	Years of Experience
Data Analysis	1
Python	2

Figure: Add Personal Skills

Add Language

Language *

Fluency *

Competency *

Comments

* Required field

☐	Language	Fluency	Competency	Comments
☐	Bangla	Speaking	Mother Tongue	
☐	English	Reading	Good	

Figure: Add Language

Change Password

Username * Sharif

Current Password *

New Password *

Confirm New Password *

* Required field

For a strong password, please use a hard to guess combination of text with upper and lower case characters, symbols and numbers

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Figure: Change Password

Report

Admin Module

Admin > User Management

☐	Username	User Role	Employee Name	Status
☐	anamika	ESS	Anamika Ana	Enabled
	ashik	Admin	Sharif Ashik	Enabled
☐	asifahmed	ESS	Asif Ahmed	Enabled
☐	atish	ESS	Atish Day	Enabled
☐	moinali	ESS	Moin Ali	Enabled
☐	semanto	ESS	Semanto Fokir	Enabled
☐	shawon	ESS	Shahirur Shawon	Enabled
☐	shorifulislam	ESS	Shoriful Islam	Enabled

Admin > Job > job title

☐	Job Title	Job Description
☐	Data Scientist	
☐	Driver	
☐	Engineere	
☐	IT Officer	Provide IT services
☐	Manager	Project Management of a company
☐	Project Manager	
☐	Sales officer	
☐	Security	
☐	Teacher	
☐	Team Leader	
☐	Web Developer	Full Stack Web Developer

Admin > Job > pay Grades

☐	Pay Grade	Currency
☐	First Class	Bangladeshi Taka
☐	Second Class	Bangladeshi Taka
☐	Third Class	Bangladeshi Taka

Admin > Job > Employment Status

☐	Employment Status
☐	<u>Average</u>
☐	<u>Good</u>
☐	<u>Poor</u>
☐	<u>Very Good</u>

DCI

Admin > Job > job Categories

☐	Job Category
☐	<u>Craft Workers</u>
☐	<u>IT Officer</u>
☐	<u>Laborers and Helpers</u>
☐	<u>Office and Clerical Workers</u>
☐	<u>Officials and Managers</u>
☐	<u>Operatives</u>
☐	<u>Professionals</u>
☐	<u>Sales Workers</u>
☐	<u>Service Workers</u>
☐	<u>Technicians</u>

Admin > Job > work Shifts

☐	Shift Name	From	To	Hours Per Day
☐	<u>Day</u>	14:00	20:00	6.00
☐	<u>Morning</u>	09:00	14:00	5.00
☐	<u>Night</u>	18:30	23:45	5.25

Admin> Organization > Locations

☐	Name	City	Country	Phone	Number of Employees
☐	<u>Dhanmondi</u>		Bangladesh		0
☐	<u>Jatrabari</u>		Bangladesh		0
☐	<u>Mirpur</u>		Bangladesh		0
☐	<u>New Market</u>		Bangladesh		0

Admin> Qualifications >Skills

☐	Name	Description
☐	<u>C</u>	
☐	<u>Data Analysis</u>	
☐	<u>Data Mabagement</u>	
☐	<u>Deep learning</u>	
☐	<u>Machine Learning</u>	
☐	<u>Python</u>	Python with full stack development
☐	<u>Web Development</u>	
☐	<u>Worker</u>	

Admin > Qualifications> Education

☐	Level
☐	<u>Bsc</u>
☐	<u>HSC</u>
☐	<u>MSc</u>
☐	<u>SSC</u>

Admin > Qualifications> Licenses

☐	Name
☐	<u>Driving</u>
☐	<u>Gan</u>
☐	<u>Passport</u>

Admin > Qualifications> Languages

☐	Name
☐	<u>Bangla</u>
☐	<u>English</u>
☐	<u>Hindi</u>

Admin > Qualifications> Membership

☐ Membership
☐ <u>1st Class</u>
☐ <u>2nd class</u>
☐ <u>3rd Class</u>
☐ <u>Custom</u>

Admin > Configuration

Module Configuration	
Enable Admin module *	☒
Enable PIM module *	☒
Enable Leave module	☒
Enable Time module	☒
Enable Recruitment module	☒
Enable Performance module	☒
Enable Directory module	☒
Enable Maintenance module	☒
Enable Mobile	☒
* Required field	
Edit	

PIM Module

PIM >Employee List

☐	Id	First (& Middle) Name	Last Name	Job Title	Employment Status	Sub Unit	Supervisor
☐	0007	Asif	Ahmed				
☐	0017	Moin	Ali				
☐	0005	Anamika	Ana				
☐	0001	Sharif	Ashik				
☐	0011	Atish	Day				
☐	0015	Akif	Fakir				
☐	0009	Semanto	Fakir				
☐	0006	Shoriful	Islam				
☐	0012	Ahad	Khan				
☐	0016	Sadin	Molla				
☐	0013	Araf	Sardar				
☐	0002	Shahinur	Shawon				
☐	0014	Saiful	Sikder				

Leave Module

Leave > Leave List

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	0.00	4.00	Scheduled(4.00)		Select Action
2022-02-17 to 2022-02-28	Semanto Fokir	Bereavement	0.00	4.00	Cancelled(4.00)		
2022-02-15 to 2022-02-21	Sharif Ashik	Bereavement	0.00	5.00	Cancelled(3.00), Pending Approval(2.00)	Emergency	Go to Detailed View
2022-02-13 to 2022-02-18	Alish Day	Personal Issue	0.00	4.00	Scheduled(4.00)		Select Action
2022-02-03 to 2022-02-10	Semanto Fokir	Bereavement	0.00	3.00	Taken(3.00)		Select Action
2022-01-14 to 2022-01-31	Anamika Ana	Marriage	0.00	12.00	Cancelled(12.00)		
2022-01-18 to 2022-01-31	Anamika Ana	Marriage	0.00	5.00	Taken(5.00)	Beyar dawar khita aisen	Select Action
2022-01-12 to 2022-01-20	Shahinur Shawon	Marriage	0.00	7.00	Taken(7.00)		Select Action
2022-01-12 to 2022-01-13	Anamika Ana	Sick	0.00	2.00	Cancelled(2.00)		
2022-01-11	Anamika Ana	Bereavement	0.00	1.00	Taken(1.00)		Select Action
Save							

Leave > My Leave

Date	Employee Name	Leave Type	Leave Balance (Days)	Number of Days	Status	Comments	Actions
2022-02-15 to 2022-02-21	Sharif Ashik	Bereavement	0.00	5.00	Pending Approval(2.00), Cancelled(3.00)	Emergency	Go to Detailed View
Save							

Leave > Entitlement > My Entitlement

Leave Type	Entitlement Type	Valid From	Valid To	Days
☐ Bereavement	Added	2021-01-16	2022-01-09	50.00
☐ Sick	Added	2021-01-16	2023-01-09	200.00
☐ Marriage	Added	2021-01-16	2023-01-09	20.00
Total				270.00

Leave > Configure > Leave Period

Leave Period

Start Month *

January

Start Date *

10

End Date

January 09 (Following Year)

Current Leave Period

2021-01-16 to 2023-01-09

* Required field

Edit

Leave > Configure > Leave Type

Leave Type

☐ Bereavement

☐ Marriage

☐ Maternity

☐ Paternity

☐ Personal Issue

☐ Sick

Leave > Configure > Work Week

Work Week

Monday

Full Day

Tuesday

Full Day

Wednesday

Full Day

Thursday

Full Day

Friday

Full Day

Saturday

Non-working Day

Sunday

Non-working Day

Edit

Leave > Configure > Holidays

☐ Name	Date	Full Day/Half Day	Repeats Annually
☐ Valentine's Day	2022-02-14	Full Day	Yes
☐ Birthday	2022-02-24	Full Day	No
☐ Independent Day	2022-03-26	Full Day	Yes

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Time Module

Time > Attendance > Attendance Record

Employee Name	Punch In	Punch In Note	Punch Out	Punch Out Note	Duration(Hours)	Total
Sharif Ashik	No attendance records to display				---	---
Shahinur Shawon	No attendance records to display				---	---
Anamika Ana	No attendance records to display				---	---
Shoriful Islam	No attendance records to display				---	---
Asif Ahmed	No attendance records to display				---	---
Semanto Fokir	No attendance records to display				---	---
Atish Day	No attendance records to display				---	---
Ahad Khan	No attendance records to display				---	---
Araf Sardar	No attendance records to display				---	---
Saiful Sikder	No attendance records to display				---	---
Akif Fakir	No attendance records to display				---	---
Sadin Molla	No attendance records to display				---	---
Moin Ali	No attendance records to display				---	---

Time > Project Info> Customer

☐ Customer	Description
☐ <u>ararat</u>	test
☐ <u>It Solution</u>	
☐ <u>Project Management</u>	
☐ <u>Sharif</u>	
☐ <u>Web Design</u>	

Time > Project Info> Project> Activities

Activities	
Add	Delete Copy From
☐ Activity Name	
☐ Data Solution	
☐ DataBase Management	
☐ It solution, Security Management	
☐ Machine Learning	

Time > Project Info> Projects

☐ Customer Name	Project	Project Admins
☐ Kanta	CCTV camera setup	Asif Ahmed, Semanto Fokir
☐ Khokon	Networking	
☐ Atish	Web Customize	

Recruitment Module

Recruitment> Candidates

☐ Vacancy	Candidate	Hiring Manager	Date of Application	Status	Resume
☐	Ahad Fakir		2022-02-15		
☐	sabila Nur		2022-02-15		
☐	sakib nur		2022-02-15		
☐ IT	Pranto Zaman	Sharif Ashik	2022-02-15	Application Initiated	
☐ IT	Sagor Fokir	Sharif Ashik	2022-02-11	Application Initiated	Download
☐	Sharif Ashik Ishtak		2022-01-05		

Recruitment> vacancies

Add

Delete

☐ Vacancy	Job Title	Hiring Manager	Status
☐ Car Driver	Driver	Shahinur Shawon	Active
☐ IT	IT Officer	Sharif Ashik	Active
☐ Programming Teacher	Teacher	Sharif Ashik	Active
☐ Project manager	Manager	Asif Ahmed	Active

Performance Module

Performance > configure > KPIs

☐	Key Performance Indicator	Job Title	Min Rate	Max Rate	Is Default
☐	Data Analyst	Sales officer	5	10	
☐	Full stack web development	Web Developer	2	5	
☐	Sales Executive	Sales officer	3	5	
☐	Security	IT Officer	3	5	

Performance > configure > tracker

☐	Employee	Tracker	Added Date	Modified Date
☐	Anamika Ana	Low	2022-02-15	
☐	Araf Sardar	general	2022-02-15	
☐	Atish Day	High	2022-02-15	
☐	Sharif Ashik	Medium	2022-02-15	

Performance > Employee tracker

Performance Trackers				
Employee	Tracker	Added Date	Modified Date	
Anamika Ana	Low	2022-02-15		
Araf Sardar	general	2022-02-15		
Atish Day	High	2022-02-15		
Sharif Ashik	Medium	2022-02-15		

Directory Module

	Asif Ahmed
	Moin Ali
	Anamika Ana
	Sharif Ashik sharifashik591@gmail.com
	Atish Day
	Akif Fakir
	Semanto Fokir
	Shoriful Islam
	Ahad Khan
	Sadin Molla
	Araf Sardar
	Shahinur Shawon
	Saiful Sikder

Notification

[Clear all notifications](#)



Sharif Ashik shared a post.
4 minutes ago



Sharif Ashik shared a post.
4 minutes ago



Sharif Ashik shared a post.
5 minutes ago

Buzz



Sharif Ashik
 2022-02-15 09:12 pm






What are you doing?

0  this

0  this

0  this



Shahinur Shawon
 2022-02-15 09:16 pm

 this
  this

I am fine



Sharif Ashik
 2022-02-15 09:11 pm






How are you

0  this

0  this

0  this



Shahinur Shawon
 2022-02-15 09:17 pm

 this
  this

I am fine



Asif Ahmed
 2022-02-15 09:22 pm

 this
  this

too much fine

Dashboard show pending leave list

Pending Leave Requests	
01. Asif Ahmed	2022-02-10
02. Sharif Ashik	2022-02-15
03. Shahinur Shawon	2022-02-16
04. Asif Ahmed	2022-02-26
05. Shahinur Shawon	2022-02-26
3 month(s)	
Total : 5 / 5	

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