Department Of Computing and Information System

Project Title

Loknath Pharmacy Management System (LPMS)

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APPROVAL

This Project titled **"Pharmacy Management System "**, Submitted by **Akash Kumar Paul**, **ID: 191-16-400** 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- **14-01-2022.**

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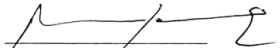

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Declaration

I hereby declare that; this project has been done by me under supervision of **Md. Mehedi Hassan , 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.

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Acknowledgement

First of all, I want to thank and praise God Almighty for giving me the ability to initiate and execute the final project and project documentation.

Finally, I would like to thank my parents and family for their support, courage and prayers. Without their help, I may not have successfully completed all of my degree programs. Your good wishes and encouragement meant a lot to me. You are the whole world to me. Special thanks to the project leader, Md. Mehedi Hassan Sir. He helped me complete my project. I am very grateful for his kind support and guidance throughout the course and project work. I cannot express my gratitude in words. Without his supervision and support, my project might not have been completed.

Finally, I would like to thank all the faculty at Daffodil International University and my friends and supporters who helped and supported me throughout the project. I am very grateful to all of them.

Dedication

I would like to start by thanking God for giving me strength.

I would like to dedicate this effort to his parents and only uncle, his Mithun Paul. Without my parents' courage, encouragement, and inspiration, I would be nothing more than a flawed human being. They helped and inspired me to complete the project and I would like to dedicate this to my only uncle. It gave me a lot of confidence and moral support.

Abstract

It is a pharmacy management system, software that monitors pharmaceutical inventory and reports inventory discrepancies. The software includes secure database and client licensing options, real-time alerts, multi-user login capabilities, nightly reports, and full customization that allows you to design a system to suit all your needs. Admins can sell drugs to consumers and get all the information along with drug inventory, payment details, due date details, and supplier details. Additionally, a pharmacy management system allows you to run your drugstore very efficiently. My father ran a private clinic and a pharmacy, so I wanted to be involved in this field as well, and came up with the idea of developing a pharmacy management system. Admins can easily access data from anywhere, including PHP Object Oriented and SQL Server's trailing edge, as well as statistics and information in PDF format. SQL server connects to the front end and works fine. Administrators can easily add new drugs and drug types and easily enter drug sales. The software can also determine or warn when drug supplies are running low. So also different features as a pharmacy owner the software meets all your needs along with all your requirements and the software provides all the updates. The main advantage is that this software also has a backup option to keep all backups. We give you the information you need so that you have no worries or problems, the software calculates your daily transactions and gives you all the updates you need when you need them. The SQL server contains all information about the shop and is fully functional.

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Chapter 1 – Introduction

Loknath Pharmacy Management System is an application for medical store owners that provides the necessary information about all medicines available in the store. Helps store owners see overall store performance on a daily basis. It allows you to sell drugs and give consumers a printed receipt. My father owns a private pharmacy, so it's very helpful for me to check my daily income, and I can easily check the medicine inventory, and the store runs very smoothly.

As we enter the golden age of technology, everything will be automated and everything will be very simple and easy. Most pharmacies use analog systems to store information, but this application represents a big change in the future. All the details you need are included in this software.

In this digitized Bangladesh, there is also a need to grow on the technological side as there is a major technological shift taking place in the country. Previously, my father could not easily calculate his daily income for us, but after implementing the software in our pharmacy, we could see the difference. Because there are a lot of useful options to explore, and they are in stock. Medications can be easily viewed and all transactions made on a daily basis at the pharmacy can be tracked.

Chapter 2 – Initial Study

2.1 Project Proposal

In this current world, everyone overcomes problems and finds solutions based on technology construction. The Internet is now ubiquitous all over the world and the world is very competitive. We should use it to solve the problem too. So the pharmacy management system focuses on all pharmacies available on the market and automates all actions in the store.

The pharmacy management system was developed to assist the pharmaceutical business and organize the day-to-day transaction help in the store since there was an analog system. We own a private medical business and that business operates on analog systems. I figured I should help develop the software and organize all the activities that take place in the pharmacy. The main goal of this project is to improve the most profitable income for our family and it will also help other pharmacies who use this project in their business. This project was developed for shops It runs smoothly without any functional issues. Shopkeepers don't have to track anything for their pharmacy. The software does just that and collects all the transactions that take place on a daily basis. It has brought so many benefits to our pharmacy. That's why I created this project.

Background Study

First, I must tell you my background story behind software development. My father is a doctor in a private clinic and we own a pharmacy there. One day when I visited the pharmacy, I saw that the patient needed medicine urgently and the medicine was not available, the store owner said that he didn't know this because the stock of these medicines had run out. So, I thought I would take the need. Build a pharmacy management system so that all information can be stored in the system, all available medicines can be issued, and store owners can check the stock of medicines at any time. So I started developing a pharmacy management system and now I can confidently say that the development of this software for pharmacies went well.

Description of the proposed system

Pharmacy Management System is a application that will store all the necessary information that is needed to run a pharmacy well. Firstly it will store all the medicine name with the company name and type and when a consumer asks for medicine the shopkeeper will be able to search the medicine and select the medicine and select how much they want and the application will automatic calculate the cost of the medicine. In the Dashboard there will be all the information about how much medicine available in the store, If there are available stocks of medicine available or not, How much transaction happening in a daily basis in a pharmacy, There are also option for creating customer info so that if a repeated customer came a shopkeeper can give him some discount on the medicine as we know that there are some discount given by the pharmacy to some consumer. There are also some important info like we can get the backup of the pharmacy whenever we want and we can change the logo of the pharmacy whenever we want and the main option is a shopkeeper can easily print out the receipt of the consumer that they are purchasing.

MoSCoW Prioritized Features

A tool for prioritizing jobs, projects, or initiatives is the MoSCoW prioritization method. When there are numerous competing requests and it is impossible to meet them all at once, it is very helpful. You may quickly and simply divide projects into straightforward tasks and their priority using MoSCoW.

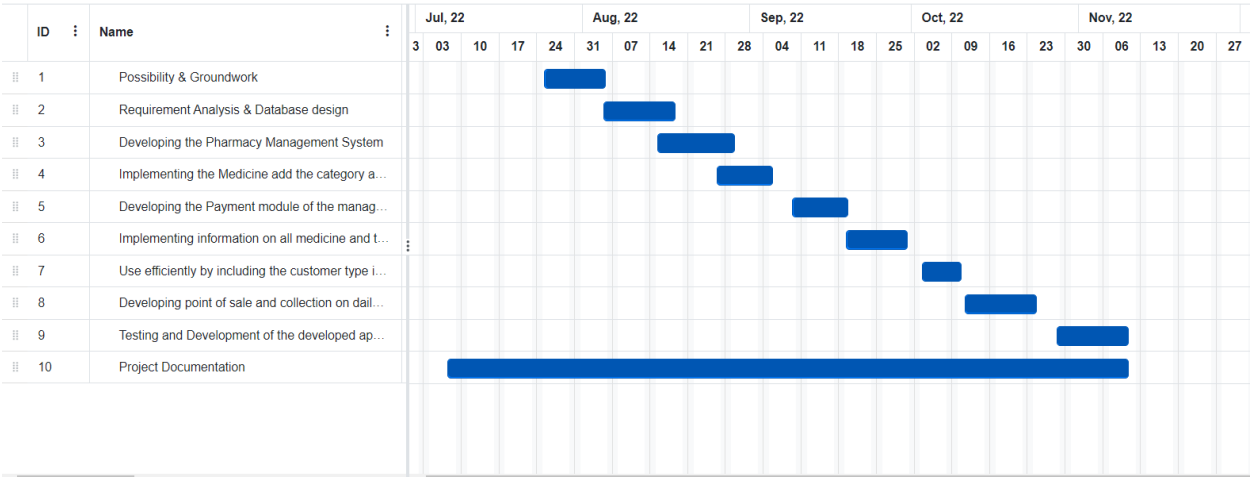
No.	Requirement for PMS	Priority
1.	Shop operator registration and login.	M H
2.	Admin action	S H
3.	Manage all information about medicines or products available in stores	M H
4.	Manage purchases made in stores	M H
5.	Manage payments by drug consumers	M H
6.	Manage the shopkeeper's sale beer.	M H
7.	Drug price management by manager	M H
8.	Manage all recent updates by admin	M H
9.	Manage store owner inputs	M H
10.	Controlling the sale and purchase of non-medical devices	M H
11.	Drug sales and purchase product reports	M H
12.	Save all reports	M H
13.	Save the entire financial report	S H

Iterative development – Timeboxing

In an iterative development process, the jobs must be broken down into segments with a time estimate for each one. Project development will require 50–60% of the overall time for real development, 15-20% for documentation, and 15-20% for the feasibility and foundation stages.
With a three-month timeframe, the project will require between 280 and 320 hours of effort. Seven time periods, each lasting 20 to 40 hours, make up the project. To estimate the time-boxes, I'll employ the "T-Shirt" estimating technique It will take longer and require more effort to produce the greater size.

Timebox	S Date	E Date	Duration	Tasks
TimeBox-1	7/25/2022	8/05/22	10	Possibility & Groundwork
TimeBox-2	8/05/2022	8/15/22	10	Requirement Analysis & Database design
TimeBox-3	8/15/2022	08/26/22	11	Developing the Pharmacy Management System
TimeBox-4	08/27/2022	09/04/22	8	Implementing the Medicine add the category and add the necessary details.
TimeBox-5	09/09/2022	9/17/22	8	Developing the Payment module of the management system
TimeBox-6	09/18/2022	09/30/22	12	Implementing information onall medicine and their category and their price tag

TimeBox-7	10/01/2022	10/05/22	5	Use efficiently by including the customer type in the application.
TimeBox-8	10/06/2022	10/19/22	12	Developing point of sale and collection on daily basis in the application
TimeBox-9	10/20/2022	10/30/22	10	Testing and Development ofthe developed application(PMS)
Timebox-10	7/25/2022	12/11/22	80	Project Documentation



2.2 Background of the project

Pharmacists can manage their pharmacies and distribute pharmaceuticals in accordance with established standards with the aid of Pharmacy Management Systems (PMS). Hardware, software, and information technologies are all used by pharmacy management systems (PMSs), a subset of pharmacy technology. A piece of software called a pharmacy management system (PCMS) aids in keeping track of each transaction and client. Utilizing this software makes it easier to keep track of inventory, handle payments, and communicate with clients by phone and email. The PCMS has a number of features that can boost productivity and efficiency in your pharmacy. It has a variety of benefits for both the pharmacy and the customers. It improves the system's accuracy and efficiency while also making checks simpler and more precise. The reporting features also make it easier to keep track of your finances as well as other activities associated with running a business.

2.3 Problem Areas

The biggest problem of not having a pharmacy management software is that you will have the entire record in paper format. It involves a lot of time, labor and cost for the staff to keep track of all of your records. Not to mention, with time an error can happen, which can impact your business as well. The problems occur when we are not using the pharmacy management software to track the inventory, prevent asset loss and manage finances. Drug orders have been delayed, incomplete or just not executed. Poor customer service, lack of communication between the pharmacy staff and management, patient complaints due to medication errors, medication shortages and more. The pharmacy management software will allow you to do everything from inventory management to prescription ordering, which can potentially save a lot of time and money that could be used for other tasks at a pharmacy. Unmanaged pharmacy software is a major problem for the modern pharmacy that has no pharmacy management software. It leads to many problems like un-implemented and out of date software, disconnected systems, lack of invoicing and reporting, no data security and much more. It is important for pharmacies to have a complete system that tracks all aspects of the business, from inventory and equipment to personnel, marketing and finances. Unfortunately, many pharmacies today are operating without management software, which not only causes mistakes but can be extremely time consuming. Pharmacy management software can be very helpful for managing the pharmacy and its customers needs.

2.4 Possible Solution

Pharmacy management software is a great assistant in running a pharmacy. It makes the work easier, faster and helps you to save time and money because it helps you to have complete control of your pharmacy. A pharmacy management system is a software that helps stores manage medications. It’s possible to manage prescriptions, inventory and purchase orders, track prescriptions filled and more with a pharmacy management system. A pharmacy management system helps your pharmacist provide better care and deliver more value to clients. We make sure nothing falls through the cracks by providing insights into each patient and helping pharmacy partners improve workflow efficiency, increase staff productivity and decreases errors. A pharmacy management system (PMS) helps a store manager or pharmacist to monitor inventory, bills and cash-in procedures. It also acts as the central point of communication between management, staff and clinic technicians by enabling them to access information at any time. This allows them to make necessary business decisions faster than if they were doing it alone and gives them peace of mind knowing that information is secure.

Chapter 3 – Literature Review

A literature review is a type of evaluation essay. The term "literature review" refers to a collection of resources on a particular subject and does not refer to all human writings. The term "literary studies" describes authoritative knowledge on a particular topic, published in reputable journals after exhaustive research and analysis. A literature survey lays the foundation for understanding a particular topic of systems development. Literature research of the project helps identify problem areas and solutions. This factor facilitates comparison and discussion of results within the same research field, paving the way for fruitful efforts.

3.1 Discussion on the Problem Domain (LPMS)

A pharmacy management system is computer software for managing processes within a pharmacy. This includes data collection, analysis and reporting. The goal of this software is to help manage and operate pharmacies by providing information about patients, medications, inventory, and more. A pharmacy management system is a computer application that can centralize information, communication, and decision-making. The main objective of a pharmacy management system is to reduce staff paperwork and increase efficiency by improving quality assurance and productivity while reducing costs. Hospital and private practice pharmacists can use pharmacy management systems to manage schedules, patient records, inventory, and SLAs to improve patient care. A pharmacy management system is used to manage the inventory of medicines and other processes within a pharmacy. The system stores data including orders, dispensed and consumed medicines. It also helps record transactions along with their associated costs. However, this system has limitations when it comes to customization, as most of its functionality relies on pre-defined rules and models beyond the control of individual pharmacists. A pharmacy management system is computer software for managing processes within a pharmacy. This includes data collection, analysis and reporting. The goal of this software is to help manage and operate pharmacies by providing information about patients, medications, inventory, and more.

3.2 Discussion on the Problem Solution:

The pharmacy management system introduced in our shop is very useful. We were able to improve our processes and workflows in a very short period of time. Being able to share information in real time has made it easier to fill out prescriptions and communicate with customers. A pharmacy management system shows which drugs have been ordered and shipped, and how much is left for each drug. This allows us to accurately track if any of the ordered products are missing. After implementing a pharmacy management system, the average number of prescriptions was significantly higher than expected. This shortened the time from drug delivery to inventory replenishment, improved the customer experience and reduced wasted time.

Security and safety

The system contains sensitive information, including personal data, so data security should be a top

priority for your solution. Both role-based data access restrictions and strict security measures should be implemented in the system.

Dependability

This is the biggest problem facing these systems, followed by trust. The entire system should be visible to the user. To gain user trust, government policy must be involved.

Privacy

The confidentiality of transactions in this particular system must be maintained as well as the privacy of buyers and sellers, system troubleshooters, and volunteer farm personnel. Systems should use encrypted data transfers and encrypted VPN connections for client-server responses to ensure privacy.

24/7 Availability or Server Downtime in LPMS

Attention should be paid to the national accessibility of the application. Applications need to be accessible at any time of the day, because there is no other way. The server is offline due to insufficient bandwidth and heavy incoming traffic.

Backup

Since the system handles a large amount of data, it is necessary to ensure that regular backups are made. A proxy server and data store should always be available in case you need to back up your system.

3.3 Recommended Approach

The recommended approach to creating a pharmacy management system is to use a pharmacy management system. With this system, you can automate processes for various pharmaceutical concepts such as ordering, receiving, pre- and post-sales, reporting and billing. A pharmacy management system is a software application that enables automated, efficient and secure data entry to better manage patient care. It can be used to track critical information related to pharmaceutical inventory, patient demographics, claims processing, and more. A PMS can include functionality such as e-prescription ordering, patient audit reporting, and reconciliation of inventory records to claims. Pharmacy Management System "PMS" is the most important aspect of a medical facility.

The new device need to consist of the subsequent features:

- The system's will be able to design is user-friendly design
- Access to the medicine and the rack available in the store
- Admin will able to make the customer type.
- The creation of a central regulatory body is essential.

Chapter 4 – Methodology

For a successful project and efficient project management, the software team that works for the best of the project chooses the software development technique. A set of concepts, techniques, and procedures employed by professionals in a particular business is known as a project management methodology. The top approaches require distinct outputs, processes, and even the creation of project management software, in addition to being structured differently. This chapter will thoroughly explore the selected methodology and the appropriate justification for using the technique after sufficient research and expertise. A research methodology enlists a broad set of steps that clarify how and why a piece of information was derived. It can be defined broadly as the body of knowledge concerning good scientific practices in the art or science of research. The relevant procedures include methods used to acquire, evaluate and analyze data, extract information from raw data, verify results and make conclusions from such data. The study also focuses on researching various aspects like ethics in conducting clinical studies, statistical analysis which is an important part of medical practice.

4.1 What I Use

A software methodology is a method for designing, organizing, and developing systems in software development. Software development methodologies are integral to the process of creating software. Examples of software development approaches include waterfall model, prototype model, agile software development, rapid application development, dynamic system development model, spiral model, and collaborative application development. Both the Dynamic System Development Methodology (DSDM) and the SSADM Waterfall Methodology are important in my projects. Below, we outline the strengths and weaknesses of the three strategies.

Dynamic System Development Method (DSDM)

A framework for iterative agile product development is DSDM. Designed to work effectively, it outlines many phases of the development lifecycle and offers tangible benefits to all stakeholders involved in the project. This approach provides recommendations on how best to deliver goods on time and on budget throughout the project lifecycle. Additionally, it aims to show that it is scalable and can meet the needs of all project sizes and industries or business units.

DSDM's goal is to help professionals work better as a cohesive team working towards her one goal. If each stage of development has the right value, the team will gradually move on to the next stage. Plus, it's vendor-neutral, so it works in any technology environment.

Advantages of DSDM:

Improved collaboration:
DSDM facilitates enhance verbal exchange efforts among numerous cross-practical groups and departments. This maintains anybody updated with the modern tendencies inside the task and minimizes confusion.

Supports fast results:
DSDM enables product teams to release deliverables quickly, minimize delays, and meet reasonable timelines. As a result, your team can work more efficiently, meet customer needs, and get to market faster.

Encourage feedback:
This approach allows the team to stay in close contact with stakeholders and receive feedback and suggestions frequently. If the team can collect critical reviews on a regular basis, they may be able to adjust accordingly.

Improve project organization:
When a development team implements a DSDM methodology, there are various tools and strategies that can be used to better manage the overall operation. Better control over scaling your development process is essential to planning and staying on schedule.
Set clear guidelines.

DSDM helps teams manage their work, meet deadlines, and stay on budget. This facilitates alignment of the organization so that the team can meet the expectations set by management.

Disadvantage of DSDM:

Requires resources:

Implementing DSDM can be expensive. While implementation requires an investment, it can also save your company money by allowing your team to work more efficiently and get your product to market faster.

Minimize your creativity:

Encourage developers to work quickly and limit risk taking. A focus on iterative development allows professionals to revisit their work to incorporate more unique and creative elements later.

Requirement structure:

DSDM works best when the team has a strong structure, extensive administrative support, and a competent project manager to lead the project lifecycle. To ensure the success of DSDM, you can implement more structure within your team before committing to DSDM.

Waterfall model:

The first process model to be used was the waterfall model. The linear sequential life cycle model is another name for this. Very simple to use and comprehend. In a waterfall paradigm, stages do not overlap and each one must be finished before the subsequent one can start.

The first SDLC method used in software development was the waterfall model. The waterfall model depicts a linear, sequential flow for the software development process. In other words, a phase of development doesn't start until the one before it has finished. This waterfall model does not have phase overlap.

The first widely used SDLC model in software engineering to guarantee project success was the waterfall methodology. The entire software development process is broken down into several phases using the "waterfall" methodology.

Requirements Extraction and Analysis:
During this stage, every potential need for the system that will be created is logged and documented in the specification.

System Design:
The requirements specification from the previous step is examined in this phase, during which the system design is created. The hardware and system requirements are laid forth in this system design, which also aids in defining the overall system architecture.

Implementation:
The system is initially built as tiny programs, or so-called units, using input from the system design. The units are then merged in the next phase. Unit testing is the process of developing and evaluating each unit for functionality. Testing and Integration - Each unit created during the implementation phase is tested before being incorporated into the overall system. The entire system is checked for flaws and defects after integration.

System Deployment:
The product is either marketed or deployed in the customer's environment after passing functional and non-functional testing.

Upkeep:
We're having a few problems with our clients' environment. To address these problems, a patch has been published. In order to enhance the product, several improved versions will also be launched. In order to implement these modifications in client settings, maintenance will be carried out.

Advantages of Waterfall:

Waterfall development has the benefit of enabling departmentalization and management. Your product may advance through the stages of your development process model if you establish dates and deadlines for each phase.

Conceptualization, design, implementation, testing, installation, troubleshooting, operation, and

maintenance are all parts of the development process. The stages of development are carried out in a certain order.

The following are some of the primary benefits of the waterfall model:

• Easy to use, comprehend, and simple

• The model is manageable due to its rigidity. Specific deliverables and a review procedure are included at each phase.

• Each phase is handled and finished independently.

• Appropriate for small projects with well defined criteria.

• well defined phases.

• A significant accomplishment. simple job organization.

Disadvantages of Waterfall:

The drawback of waterfall development is that it leaves little room for contemplation and adjustment. It is exceedingly challenging to reverse and alter anything that was poorly documented or thought through during the conceptual phase after an application has entered the testing phase.
The waterfall model's primary shortcomings are:

• Until late in the life cycle, functional software is not produced.

• Significant danger and unpredictability.

• Ineffective as a paradigm for intricate object-oriented programs. It's not a good approach for continuous, protracted tasks.

• Unsuitable for projects whose specifications are subject to a medium to high risk of modification. As a result, there are a lot of risks and uncertainties associated with this process model.

• Monitoring development within a stage is challenging.

• Failure to adapt to changing demands. Changing the focus

Rapid Application Development

Rapid Application Development (RAD) is a flexible approach to software development that places less of a focus on a predetermined strategy and instead relies on rapid feedback and prototyping. In general, the RAD method places more emphasis on prototyping and development than on planning. Without beginning from scratch, fast application development enables developers to quickly undertake several software upgrades and revisions. This makes sure that the final product is more

quality-focused and fits the needs of the end customer.

The greatest method for quickly creating software prototypes that can be tested without affecting the finished result is rapid application development (RAD). Because it enables teams to swiftly create, evaluate, and iterate on additions and functionality with less emphasis on the planning phase, organizations favor his RAD method.
Rapid application development was first implemented using a spiral approach. He worked on a specific project in this model using one or more development models.

Phases of RAD have evolved over time. It keeps certain fundamental development principles while adjusting to the demands of the moment. The RAD technique, which is motivated by UI needs, is best for app development that calls for quick development and deployment. RAD makes it simple and quick to construct software programs by using visual interface tools and pre-built modules. Due to its agility, adaptability, and scalability, several forms of quick app development are used by businesses.

1. Specify your needs.
Traditional software development approaches are fundamentally different from rapid application development. There is no need to speak with end users to obtain a thorough list of requirements. Instead, it imposes a broad variety of expectations. The wide breadth of needs makes it time-consuming to separate certain requirements at various stages of the development cycle.

2. Prototype :
The real construction takes place here. Developers swiftly produce functioning prototypes rather than adhering to a strict set of specifications. Show your consumers these prototypes so they may comment on what they like and don't like.

These prototypes are often immediately operational to highlight only the most crucial characteristics. This is typical since the final result only materializes when both the client and the developer accept it.

3. Construction :
A crucial stage of growth is the building phase. To create functional systems from workable models, engineers and developers put in countless hours. The majority of problems, issues, and modifications are fixed at this stage, which also emphasizes the value of feedback and reviews. This stage may take a while, particularly if the consumer changes their mind or the feedback is strong.

4. Regulations
Deploying the created system into the actual production environment concludes the RAD process. In-depth scale testing, technical documentation, problem tracking, final tuning, and system simulations are all part of the deployment process. Prior to launch, the team works on debugging the app and doing last-minute upgrades and maintenance.

Benefits of RAD

- Encourage client input and give it top priority; provide quick evaluations;
- significantly shorten development time; increase productivity with fewer employees.
- Less time is spent between prototypes and iterations, and integration doesn't pose a difficulty because it is done from the start of the project.

RAD's drawbacks include:

- Rapid Application Development can only create modular systems, while other models' management is more complicated.
- Only appropriate for quick development projects, requiring user needs throughout the product lifecycle, highly competent engineers, and an inability to collaborate with big teams.

4.2 Why to Use

To fulfill the criteria within the specified timeline and budget, the system must adhere to a methodology. By adhering to a predetermined set of procedures, a methodology assists in achieving the key objectives of a project. It might be challenging to select the best approach for an academic project of this nature, but doing so is crucial to its success and the delivery of results.

4.3 (PMS) Sections of Methodology

The DSDM strategy has certain well-established components that development teams should adhere to. Which are:

Phase 1 of project

We establish the project's original concept, timetable, budget, and fundamental needs in this part.

Phase of feasibility study

This stage supports the project budget, business case, business strategy, and technological solution.

Requirements gathering phase

Different methods are employed in this field to determine functional and non-functional project needs. Analysis and prioritizing of requirements

This stage involves analyzing and prioritizing the reported demands in prioritization techniques like MoSCoW.

MoSCow priority is used.

MoSCoW developed a prioritizing tool to aid in the system's development. Here is a list of the many components.

must possess

It's crucial to decide on the system's essential characteristics in this section. If not, the customer would not benefit from the system.

ought to have

You may select important criteria and develop universally beneficial keys with the aid of this part.

Could have:

This section helps identify some needs that are not critical and do not affect your system.

Wont have:

This element of the system helps identify requirements that this system does not need.

Exploration/engineering phase:

The engineering phase includes ensuring that user needs are addressed in accordance with system standards, iterative testing, system increments, and system design.

search:

The MoSCoW prioritizing method is used in this phase to assist identify the system's functional and non-functional needs.

The methodology's iterative component was primarily utilized to iteratively investigate requirements and create solutions.

after a project:

This stage assists in determining the project's anticipated advantages and creating the system's ultimate planned solution. level of verification

Review Phase:
In this phase, the generated results are checked with the user, and if revisions are required, feedback is sent to earlier phases.

4.4 Implementation plans:

This project is almost finished and prepared for advanced applications. We will release the updated system if there is an issue with this identification and resolution. Release criteria, organization, and planning are decided in this section. The new system will launch if all goes as planned.

Chapter 5 – Planning

5.1 Project Plan

The most crucial thing you can do to plan your objectives and winning techniques is to create a "project plan." The reason it's called a project plan is because it outlines what has to be done and how you'll accomplish your goals. The planning procedure for project completion is described in this section. A project is often broken down into many phases, and if everything goes as planned, all of the work will be finished within the allotted time.

5.1.1 Work Breakdown Structure

The project is divided into smaller tasks during this stage in order for them to be completed more quickly and effectively. You may get time and task estimations from this structure. Running a project might be more challenging without this foundation. As a consequence, WBC categorized the proposed system into the categories and subcategories listed in the table below:

No	Task Name	Start	End	Duration
1	Introduction	9/20/2022	9/25/2022	5
2	Initial Study	9/26/2022	9/30/2022	4
3	Literature Review	10/1/2022	10/4/2022	3
4	Methodology	10/5/2022	10/12/202	7
5	Planning	10/13/2022	10/20/2022	7
6	Feasibility	10/21/2022	10/23/2022	2
7	Foundation	10/24/2022	10/31/2022	7
8	Exploration	11/1/2022	11/3/2022	2
9	Engineering	11/4/2022	11/25/2022	20
10	Deployment / Development	11/6/2022	11/20/2022	14
11	Testing	11/21/2022	11/23/2022	2
12	Implementation	11/24/2022	11/26/2022	2
13	Evaluation	11/27/2022	11/28/2022	1
14	Lessons Learned	11/29/2022	11/30/2022	1
15	Conclusion	12/1/2022	12/3/2022	2
16	Total			75

5.1.2 AMS Resource Allocation

The management and allocation of all assets and resources enables the prompt and effective execution of all necessary tasks. Resource allocation is a crucial component of project planning. Since this is an academic project, there is no team, thus I will be in different roles at different times. The following describes how resources are allocated for AMS projects in order to achieve pre-planned order delivery dates:

Task Name	Duration	Resource
Introduction	5	Analyst,User
Initial Study	4	Analyst
Literature Review	3	Analyst
Methodology	7	Analyst,User
Planning	7	Analyst,Team Leader
Feasibility	2	Analyst,User
Foundation	7	Analyst,Developer,Designer
Exploration	2	Analyst,Developer,Designer
Engineering	20	Designer,Developer
Deployment / Development	14	Developer,Tester,User
Testing	2	Developer,Tester,User
Implementation	2	Developer,Tester,User
Evaluation	1	Developer,Tester,User,Analyst
Lessons Learned	1	Analyst
Conclusion	2	Analyst

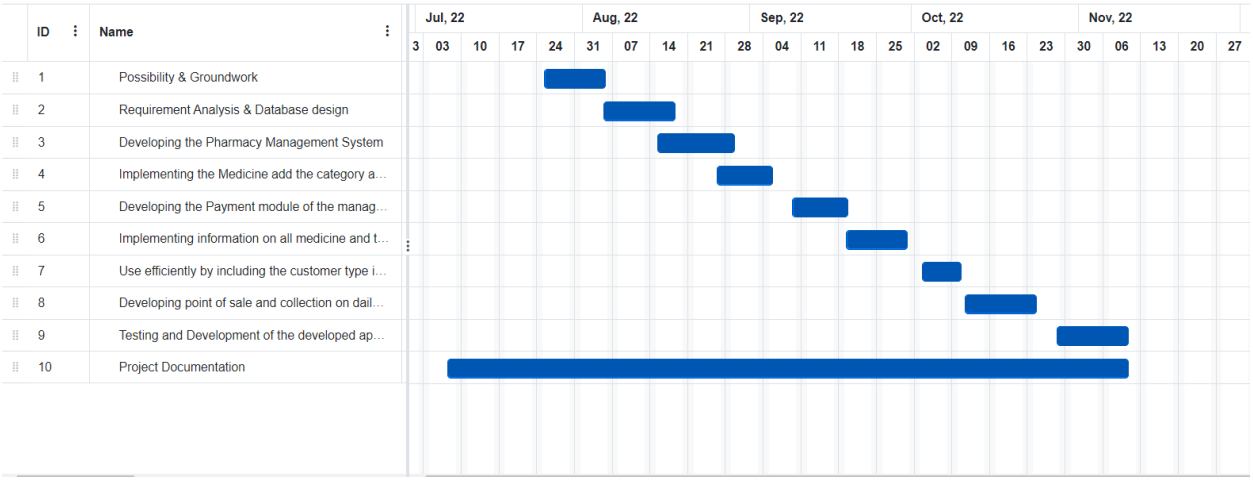
5.1.3 Time Boxing

The allocation of tasks into time-boxes in DSDM project planning is another crucial step in ensuring on-time completion of the objectives. In this area, all jobs are arranged according to timeboxes with specified durations. The iterative method's deadline for finishing these tasks must be reached.

No	Task Name	Start	End	Duration	Resource
Time Boxing-1	Introduction	9/20/2022	9/25/2022	5	Analyst,User
Time Boxing-2	Initial Study	9/26/2022	9/30/2022	4	Analyst
Time Boxing-3	Literature Review	10/1/2022	10/4/2022	3	Analyst
Time Boxing-4	Methodology	10/5/2022	10/12/202	7	Analyst,User
Time Boxing-5	Planning	10/13/2022	10/20/2022	7	Analyst,Team Leader
Time Boxing-6	Feasibility	10/21/2022	10/23/2022	2	Analyst,User
Time Boxing-7	Foundation	10/24/2022	10/31/2022	7	Analyst,Developer,Designer
Time Boxing-8	Exploration	11/1/2022	11/3/2022	2	Analyst,Developer,Designer
Time Boxing-9	Engineering	11/4/2022	11/25/2022	20	Designer,Developer
Time Boxing-10	Deployment / Development	11/6/2022	11/20/2022	14	Developer,Tester,User
Time Boxing-11	Testing	11/21/2022	11/23/2022	2	Developer,Tester,User
Time Boxing-12	Implementation	11/24/2022	11/26/2022	2	Developer,Tester,User
Time Boxing-13	Evaluation	11/27/2022	11/28/2022	1	Developer,Tester,User,Analyst
Time Boxing-14	Lessons Learned	11/29/2022	11/30/2022	1	Analyst
Time Boxing-15	Conclusion	12/1/2022	12/3/2022	2	Analyst
16	al			75	

5.1.4 Gantt Chart of PMS

A project activity plan is graphically represented by a Gantt chart. Instead of the number of days, a progress bar is displayed to indicate how long has passed between the start and finish dates. The following Gantt chart represents the agriculture management system:



5.2 Test Plan

A test plan is a detailed document that includes the test strategy, objectives, timetable, budget, estimations, and resources needed to finish a project. Consider it a guide on how to run tests under the supervision of a test manager to ensure that your program is functioning. In response to differences between the supplied inputs and the anticipated outputs of the system, test plans were created. During the software development process, testing, which included verification and validation, was carried out.

5.2.1 LPMS Testing with Relation to Time Boxes

Fixed and maximum units for a given segment were estimated using the timebox method.
Deadlines are tested-

Content for Time Boxing			

Type of testing	Testing s	E outcome	A outcomes	Comment
Unit testing				
Integration testing				
System testing				
Acceptance testing				
Security testing				
Usability testing				
Reliability testing				

5.2.1 Required Test

Although there are many test modules available, functional and non-functional testing are the two most used types of system testing.

Functional Testing:

- **Unit tests:**

The appropriateness of individual software units, such as collections of computer program modules, processes, and operational procedures, for usage in unit testing is assessed. Developers can use this testing technique to look for faults in particular modules. This is related to the individual modules' varying functional robustness.

- **Integration testing:**

Verifying the relationship between two software modules or components is done through integration testing. Its primary goal is to evaluate the interface's performance. Integrity testing is used to find flaws in how interconnected entities communicate with one another. Integration tests are conducted following the unit testing of all modules.

- **System test:**

Software testing known as "system testing" is done on an integrated system as a whole to see if it

complies with the necessary requirements. System tests are run on components that pass integration tests. To identify discrepancies between related components, integration tests are done. System tests look for issues with both the system as a whole and its specific parts. A system test's output is the observable behavior of the system or component being tested.

- **Acceptance test:**

To ascertain if a system satisfies acceptance criteria, it is a sort of formal testing that is carried out in accordance with user demands, requirements, and business procedures and to be tested by users, customers, or other approved organizations. in order for you to decide if the system.

Non functional test:

- **Security test:**

Both web application security testing and external security tests are carried out. By looking for illegal users and access, you can defend against internal and external threats like SQL injection.

Usability testing:

The benefits of usability testing are numerous. Most importantly, designers may identify usability issues as early as possible in their designs, allowing them to be corrected before the design is adopted or put into mass production. As a result, usability testing is more frequently conducted on prototypes than on finished goods, and its accuracy varies depending on the stage of production. Checking for authenticity

Users are able to interact directly with these experiments. This guarantees the system will operate effectively. Look into and take precautions for different system breakdowns.

5.2.2 Test Case of AMS

Test Case Type Number			
An explanation of the tests			
Testing steps			
Steps testing	Expected result	Actual result	Comment

5.2.3 User Acceptance Test Plan

The testing segment's ultimate phase is user acceptability. It refers to and evaluates the user-

involved tester's performance.

Test Case Type Number			
An explanation of the tests			
Testing steps			
Steps testing	Expected result	Actual result	Comment

5.3 Risk Management of LPMS

In order to track a project's progress toward its goals and objectives, risk management entails locating, evaluating, and addressing any risks that may arise during the project's development lifetime. Project budgets, timetables, and performance are all examples of project-related hazards. Risk management comes in a variety of forms.

- Risk identification,
- Risk assessment,
- Risk mitigation strategy, and steps taken to address potential hazards
- Risk assessment

5.3.1 Risk Identification

One of the most crucial sections and actions of your risk management strategy is risk identification. Finding and documenting the risks that might arise and have an impact on the project is the first stage in risk identification. Using these qualities, you can then utilize them to find and build a document characterisation. This study has led to the following justifications for various risk identification criteria:

- Identification of prospective hazards and documenting of risks;
- Identification of risks that took into account actual causes.
- Future repercussions, ramifications, and the influence of risks..

5.3.2 Risk Assessment of PMS

Risk assessment considers the qualitative or quantitative value of the threats to a project's hazards.

Kinds of dangers	Likeliness	Impact	Rewind time
Devilry	6	7	9
Destroy and Database Error	6	6	6
Unauthorized Entry System	5	8	7
Hardware Project Technical Issue	5	6	9
Backup for Network Security Failure	7	7	4
Failure of the Network	4	5	8

5.3.3 Risk Precaution / Action Plan

A risk action plan was created after risk identification and assessment. There are several measures that may be done to get ready for danger.

- Avoiding past and future hazards
- minimization of existing and future hazards;
- to address any problems that arise and potential threats;

5.4 Change Management

5.4.1 Factors that Might Cause Change

A risk action plan was created after risk identification and assessment. There are several measures that may be done to get ready for danger.

• Avoid past and future hazards
• minimization of existing and future hazards;
• to address any problems that arise and potential threats;

5.4.2 DSDM Welcome Change of AMS

Depending on the requirements of the project, the development lifecycle should be adjusted as necessary. These factors force you to make decisions about how to handle certain issues in accordance with the requirements of your system. Thus, "DSDM" is one of the practical, dependable, and simple ways. This strategy is applied in this system to maintain and put new development time modifications into place.
It works in several ways.

- Establish a mechanism to track any system modules that require update.
- Whenever you switch segments, get user feedback.
- A few examples are updates to farmer information, data on buyers and sellers of items, and email automation.
- Completed once all modifications have been performed.
- Ensure that the level of security is kept.
- Scalability and dependability are both offered.

5.4.3 Considering Business Priority

Changes were considered to achieve the company's intended goals and vision. Therefore, it is necessary to prioritize features and needs alignment that will greatly benefit the consumer.

5.4.4 Change workshop

User communication is improved by being aware of team members' profiles. Developers that are interested can host workshops and produce surveys to figure out what needs to be modified and added to the system, depending on the adjustments and additions that are needed. Knowing the characteristics of various user categories, such as farmers, consumers of goods, etc.

This modification workshop enables both customary discussions and implementations depending on user feedback.
• To identify changes and involve teams, change workshops are necessary.

• Create thorough profiles for each team member, including the user's profile.

5.4.5 Changes That are Allowed

You ought to accept the modification in accordance with the change's priority level. We had to accept the adjustment because of a number of factors, including the availability of resources, the cost, the timetable, the delivery's quality, and the risk. Prioritized alterations ought to be permitted when certain areas of this system are developed.

5.5 Quality Management

Maintaining the standards established by the user at the project's outset is quality control. Quality control is dependent on a variety of variables, including:

- The capacity to supply goods to both suppliers and customers.
- Interaction between users and the team.
- Changes to the requirements are being made.

5.5.1 Rules Applied to Maintain Quality

Policies for quality maintenance differ from user to user and from system to system. He must adhere to two ideas in order to preserve quality.

both quality assurance and control.

By analyzing the problems faced by farmers, quality control is preserved for both consumers and sellers of goods.

➢ the capacity to deliver goods to suppliers and consumers.

Quality management: By examining the proper and improper justifications for the method, quality assurance was preserved. To oversee user requests and maintain standard

Ensure quality by offering all consumers first-rate email automation (farmers, buyers, sellers).

5.5.2 DSDM Standard Quality Measures

Monitoring user demands based on predicted business needs and user expectations helped to ensure the quality of the solutions. To finish this strategy, two different prioritizing methods were applied.

Timing Box

Moscow

The schedule was kept and both of these methods were used.

Quality of the procedure is ensured depending on the target organization. To guarantee the caliber of these procedures, two strategies have been created and put into practice.

➢CMMI

➢ DSDM

5.5.3 Quality Plan and Measuring Meter

At this period, numerous varieties of quality planning were presented, including:

- Effective delivery and resource management.
- Following each module, each section was tested.
- Following the completion of all modifications, the execution process should proceed. All changes should be monitored and reported.

Chapter 6 – Feasibility

6.1 Technical Feasibility:

Aspects of technological viability include:

Compared to earlier manual methods, PMS users may easily manage operations after a technological proof of concept. The system operates effectively in any online browser with a slow internet connection thanks to its development and construction utilizing the most recent and well-liked web and mobile technologies. To provide safe access to system data, the system has an access control hierarchy. Platform independence, a sensible, cost-effective development environment, and technological viability are all features of the web-based software.

Therefore, it is apparent that the technical parts of this project are described below:

I have uses some of my rules down below:

Hardware:

- My laptop ASUS
- Wifi (Tp-link)
- Xampp
- MS
- Excel
- My Original Window 11
- VS Code

DesignSlide:

- The Html-

- Main CSS
- Boot-strap

Server Side:

Laravel 8.6

Equipment	Cost per unit	Cost
VPN network	৳1500 per/m	৳1500
Laptop asus laptop	*80000*	*80000*
Web, File and Email servers	৳15,000 per/m	৳15,000
		৳ 96500

Finding every issue is the greatest method to enhance your project. Users utilize the system the most, thus we can take care of this element for you as they are the ones that use it the most. As a consequence, we have identified a particular aspect of the issue from the data we have gathered from our users:

The system must have a domain name and a hosting company in order to function. The system must continuously resolve issues and keep track of the whereabouts of products in order to justify problem solvers and delivery searchers. A web application will be created for the remainder of the system.

Chapter 7 – Foundation

7.1 The Problem Area Identification

Identifying problems is the best way to improve your project. And users are the ones who use the system the most, so we can take care of this aspect for you. As a result, there is a specific part of what seems to be the problem that we have collected from our users:

7.1.1 Interview

If you want to inform yourself, find a problem or goal, conversation is the ideal solution. Real remedies can be prescribed by, some questions were set by users and they participated in the following interviews.

Shop keeper:

What challenges are problem facing at this point?
Are notifications real-time? can i receive it?
Is the history of previous problem solving important?
Faced the problem of obtaining the latest information on farmer problem solving in order to confirm eligibility.

Consumer:

What problems do you have when the product is delivered?

Supplier:

There was a problem getting product delivery updates to check the records.
Faced administrative problems.

7.1.2 Observations

To guarantee that all necessary data pieces are established beforehand, observations should be scheduled. As a result, there is less ambiguity during observation sessions, which enables analysts to concentrate on their observational objectives without thinking about whether particular occurrences should be documented or not. The more data collected during an observation session, the longer it will take analysts to eventually interpret it all. Therefore, before to starting an observation, it is important to decide on the degree of detail and important events to pay attention to.

Additionally, it aids analysts in deciding whether observations should be taken at a peak, a normal, or a low point in time. To have a more in-depth understanding of the occurrences, observations might be performed initially during regular times and then again at peak periods. Analysts should obtain worker documentation as well.

7.1.3 Questionnaires

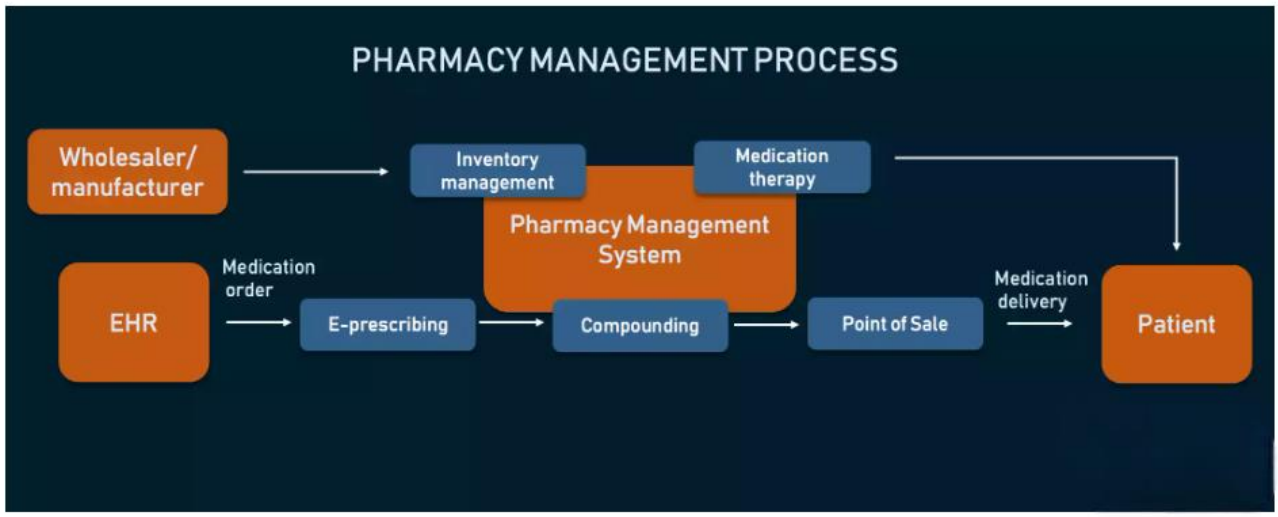
A survey is a technique for gathering data from respondents and consists of a number of questions or other prompts. Closed-ended and open-ended questions are often used in survey surveys.

The sort of information you need to gather from your respondents will determine the survey's design. When preliminary data must be obtained to support or refute a theory, qualitative surveys are utilized. Quantitative surveys are employed to verify or examine previously formulated hypothese.

7.2 Rich Picture

Image richness is a way of exploring, perceiving, defining, and representing situations using diagrams to create tentative mental models that can initiate discussions and arrive at a widely shared understanding of a situation.

A rich picture is an attempt to summarize everything that may be relevant in a complex situation. All observations that come to mind or gleaned from initial research must be represented in some way. Create a sketch that summarizes the meaning, using words only when you are running out of ideas.



Key actors

There are five main types of actors in the LPMS system.

- Shopkeeper
- Admin
- Customer
- Supplier

The image demonstrates how admin may keep an eye on every process, control it, and resolve problems.

7.3 Overall Requirement List

The whole list of prerequisites is as follows:

Functional Requirement

• Consumer Pharmacy Management System

• A facility for managing issue solutions for shopkeepers.

• Real-time issue resolution by the administrator

• Abuse by administrators.

· The mechanism for buying and selling medicines or products.

• Being aware of the drug inventories that are on hand.

• Current drug or product prices in different locations.

• A database of buyers and sellers of goods or medications.

· A product or medication system.

Non-functional Requirements

• Both data security and privacy are crucial.

• Ensure that your data and resources are backed up.

• An intuitive interface layout. To limit access, use authentication and permission.

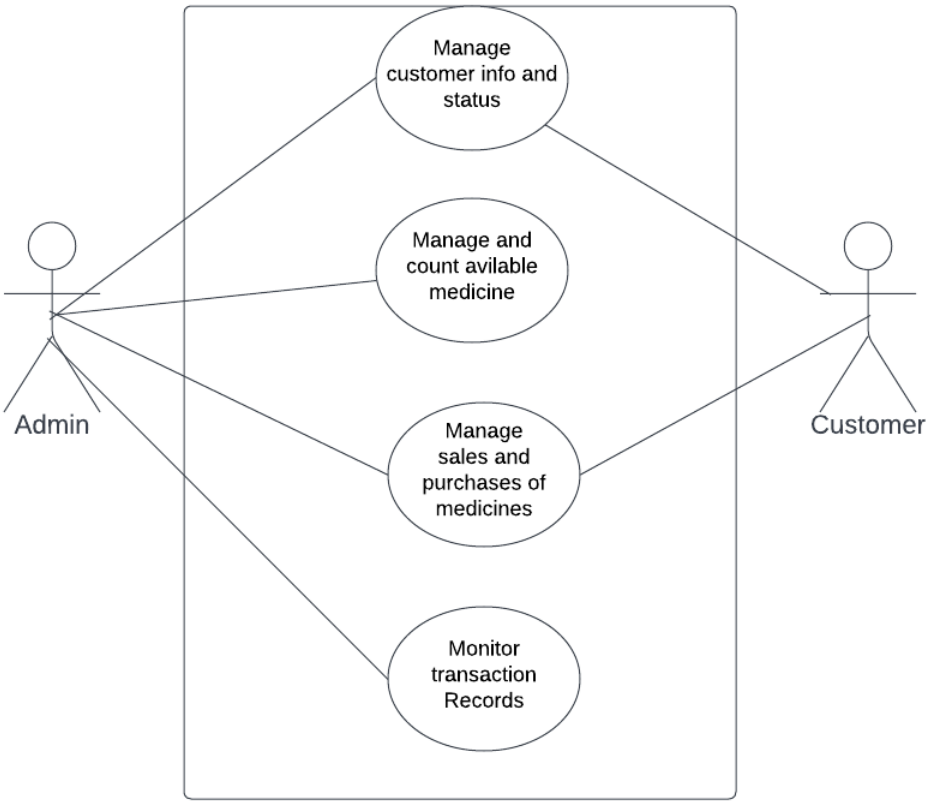
• Adhere to statutory accessibility standards.

• Verification and verification

Chapter 8 – Exploration

8.1 Use case

The use case graphic is sparsely detailed. For instance, don't count on being able to simulate how steps are carried out in succession. An effective use case diagram, on the other hand, shows the connections between use cases, actors, and systems. Experts advise employing use case graphics in addition to more profound text-based use cases.

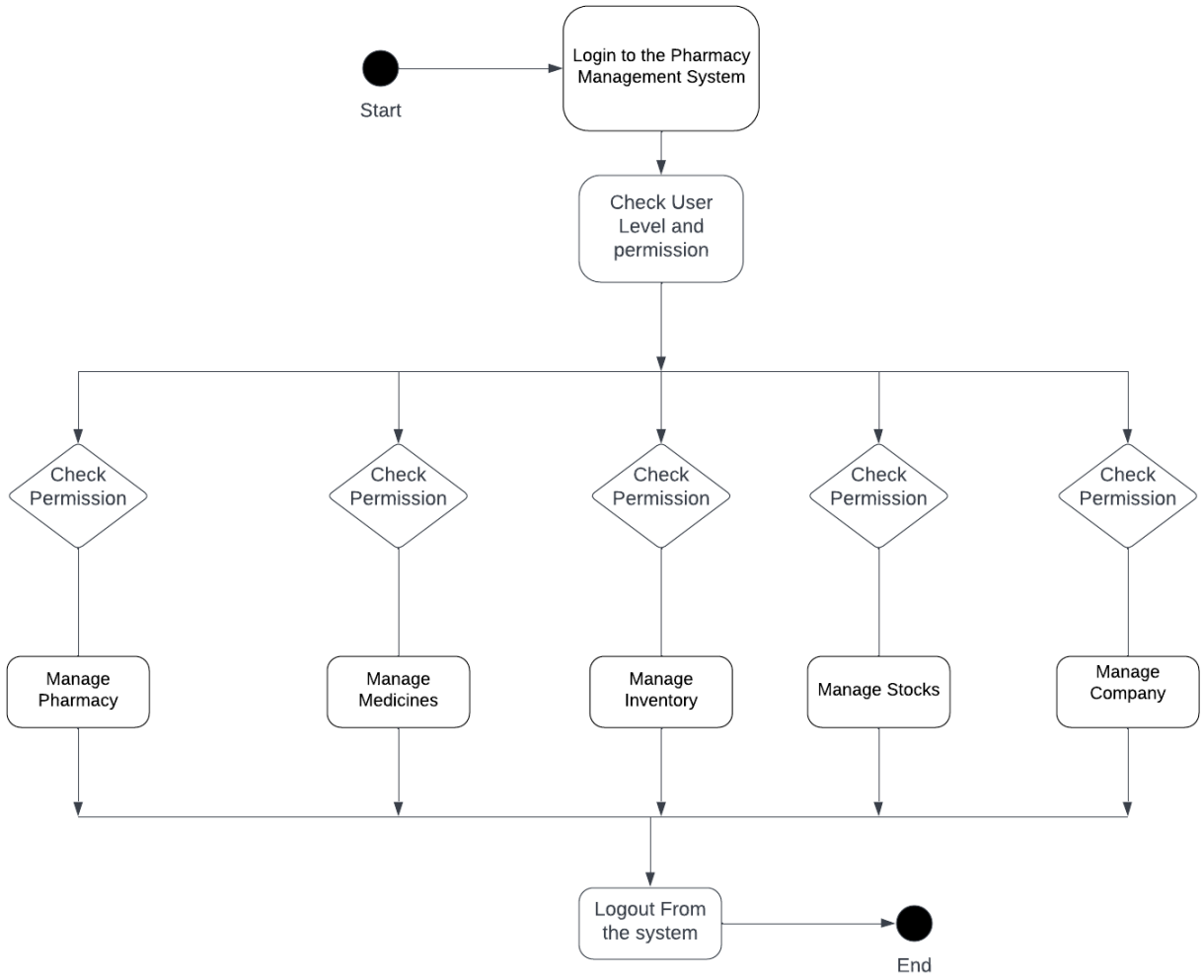


8.2 Activity Diagram

Activity flow diagrams show how different tasks are combined to deliver a service. Different degrees of abstraction can apply to this. Usually, some action is required to complete an event. Particularly if the operation is meant to complete several tasks that call for coordination, or if there is a need to consider how the events connect to one another in a specific use case. Additionally, it aids in

modeling how a collection of use cases might work together to depict a business flow.

Analyze company processes to find possible use cases.
Determine the use case's preconditions and postconditions (context).
Workflow models between and between use cases
Model intricate processes while handling items
High-level activity diagrams allow for the detailed modeling of complicated tasks.



8.3 Prioritized Requirements List (PRL)

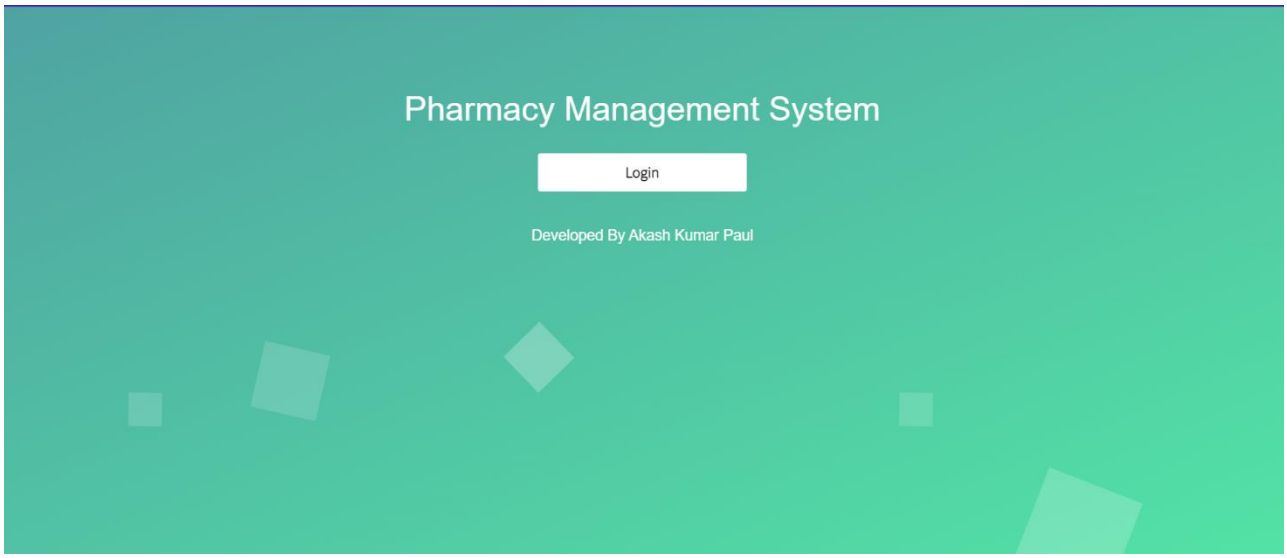
To build a prioritized list of perceived requirements, we employed the MoSCoW prioritizing method. The following are the farm management system's top priorities.

Must Have requirements-

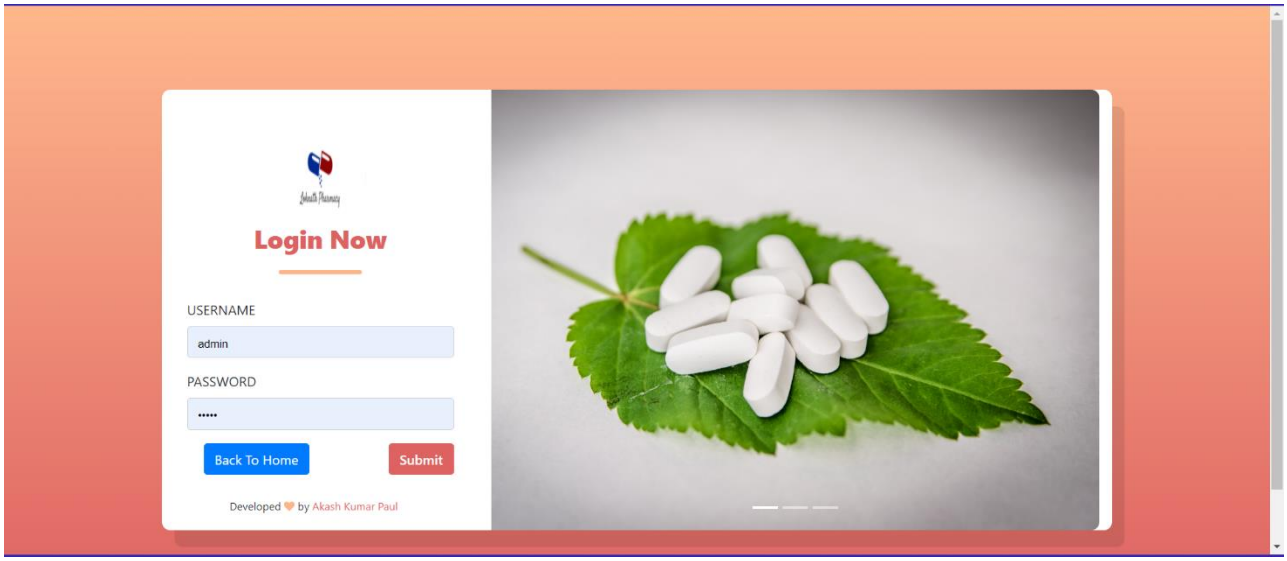
No.	Requirement for PMS	Priority
1.	Login & Registration for Shop Owner.	Must Have
2.	Admin manipulation	Must Have
3.	Manage all the information about the medicine or product available in the shop	Must Have
4.	Manage the purchase that happening in a store	Must Have
5.	Manage the payment made by the medicine consumer	Must Have
6.	Manage the pint of sale made by the shopkeeper.	Must Have
7.	Manage the medicine price by admin	Must Have

8.4 Prototype of new system

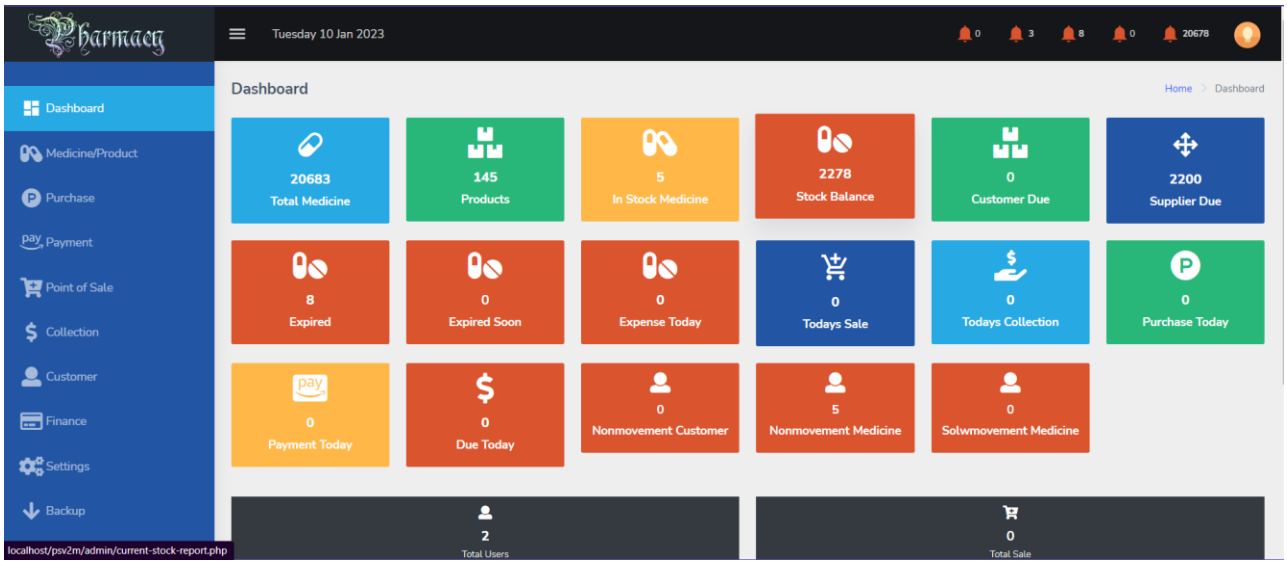
Homepage:



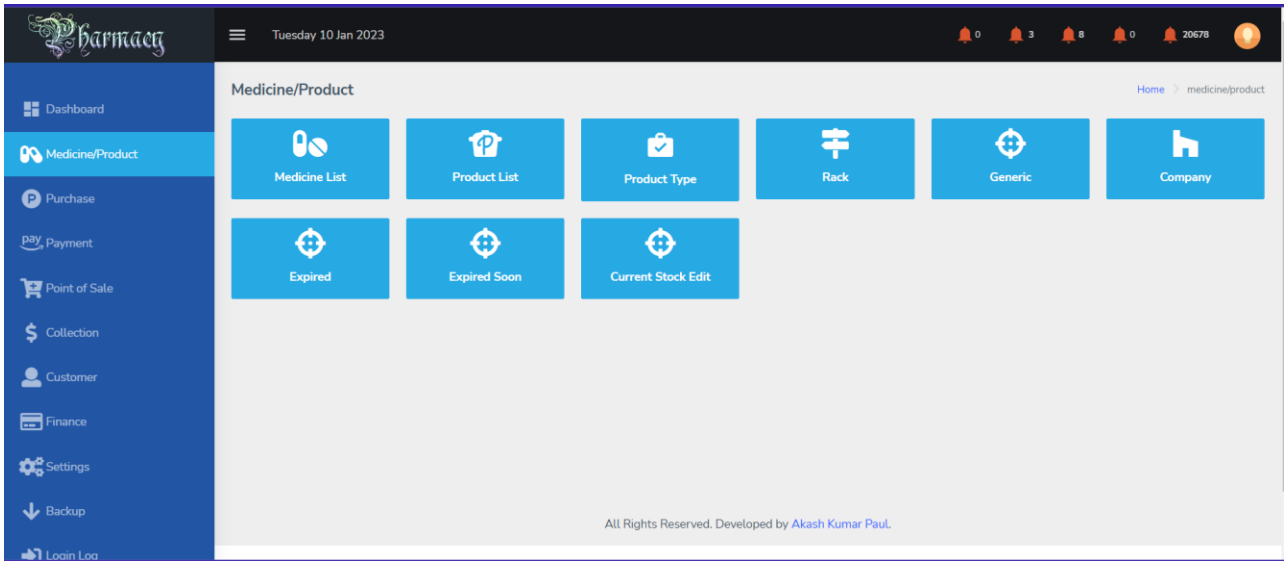
Admin Login:

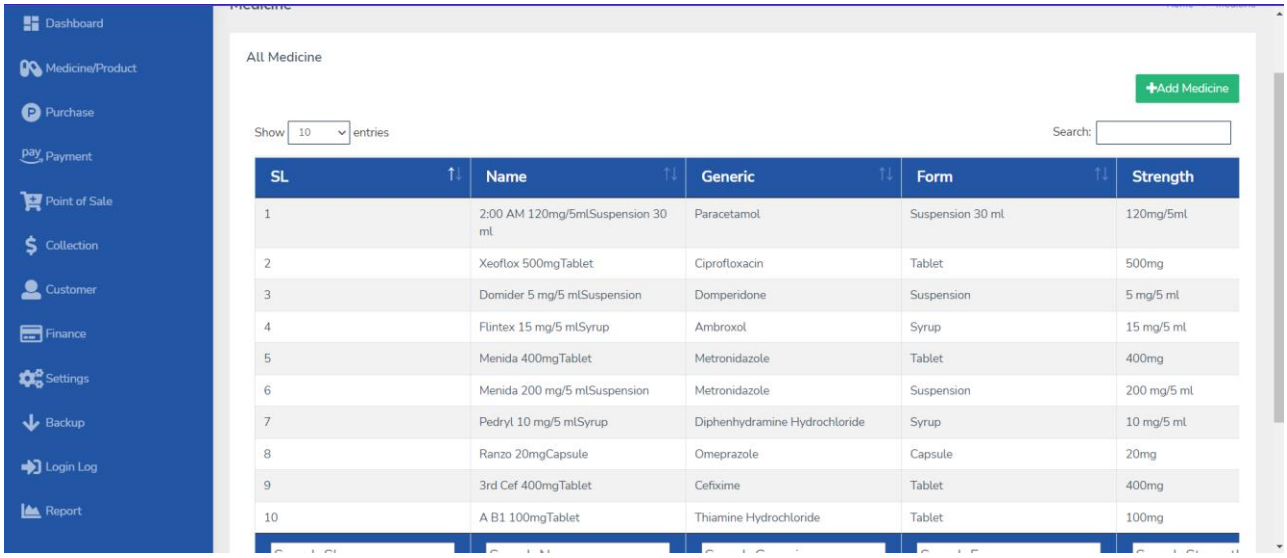


Dashboard:

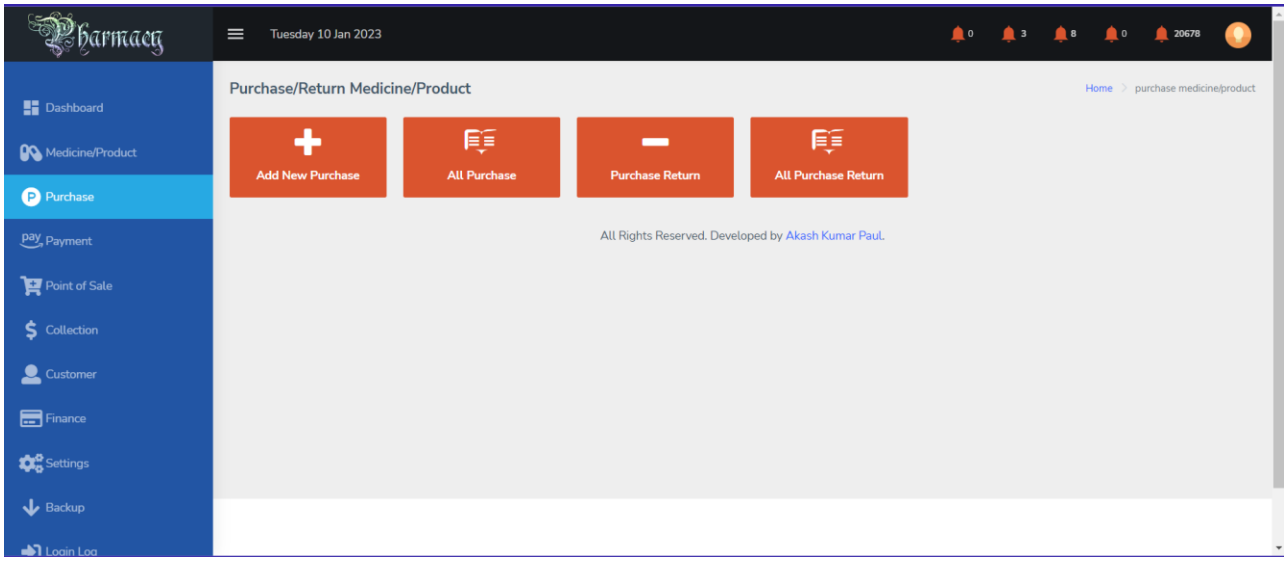


Medicine or product:

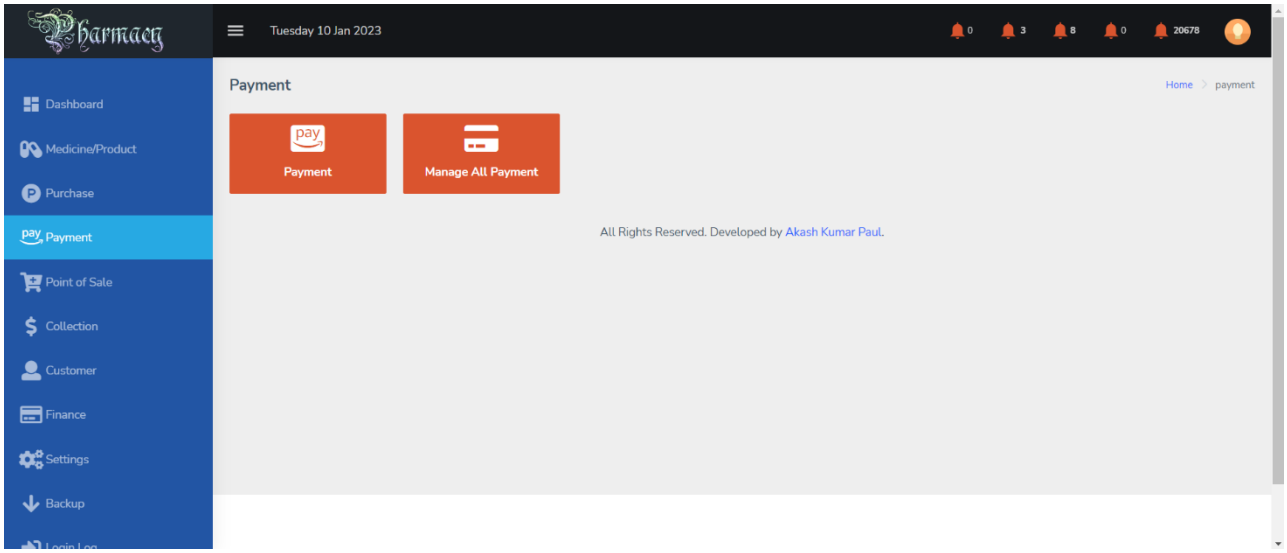




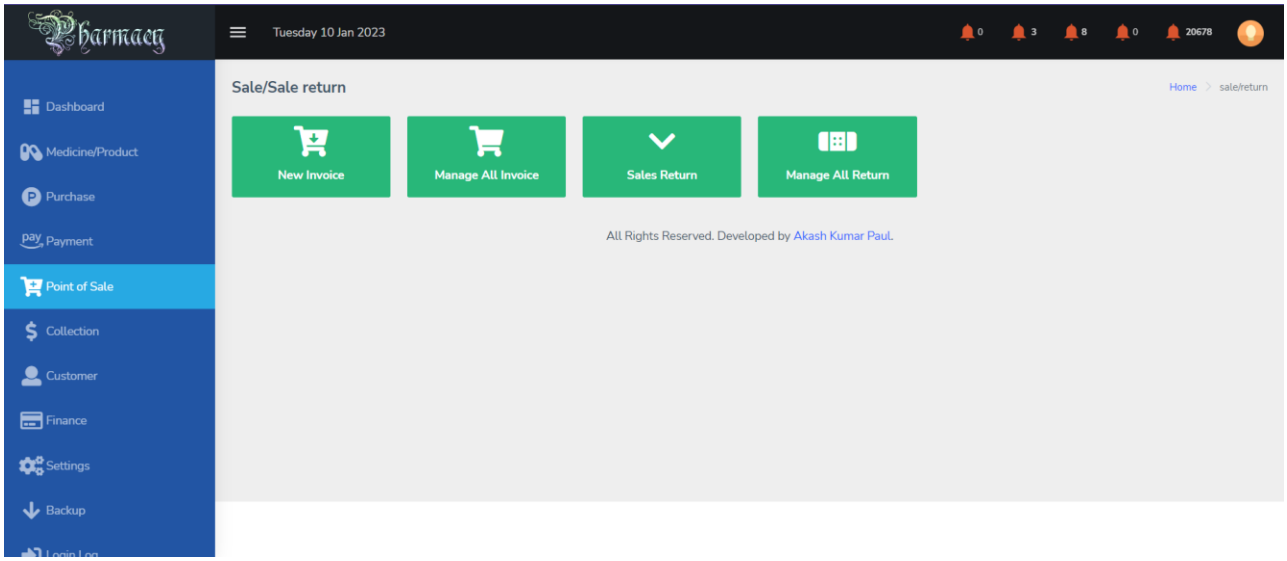
Purchase:



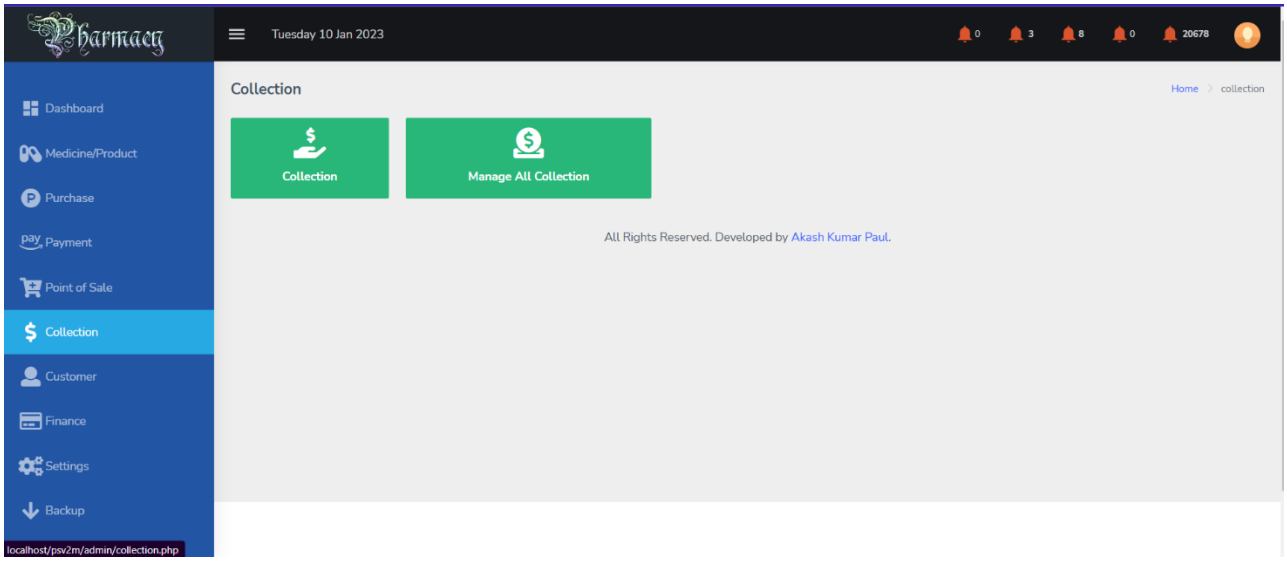
Payment:



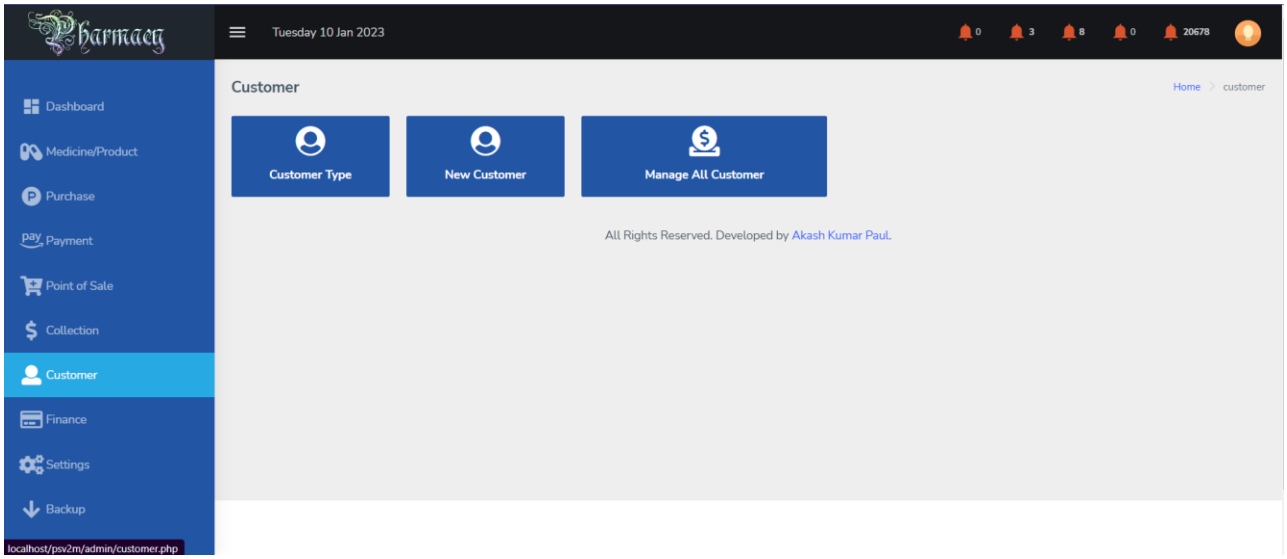
Point of sale:



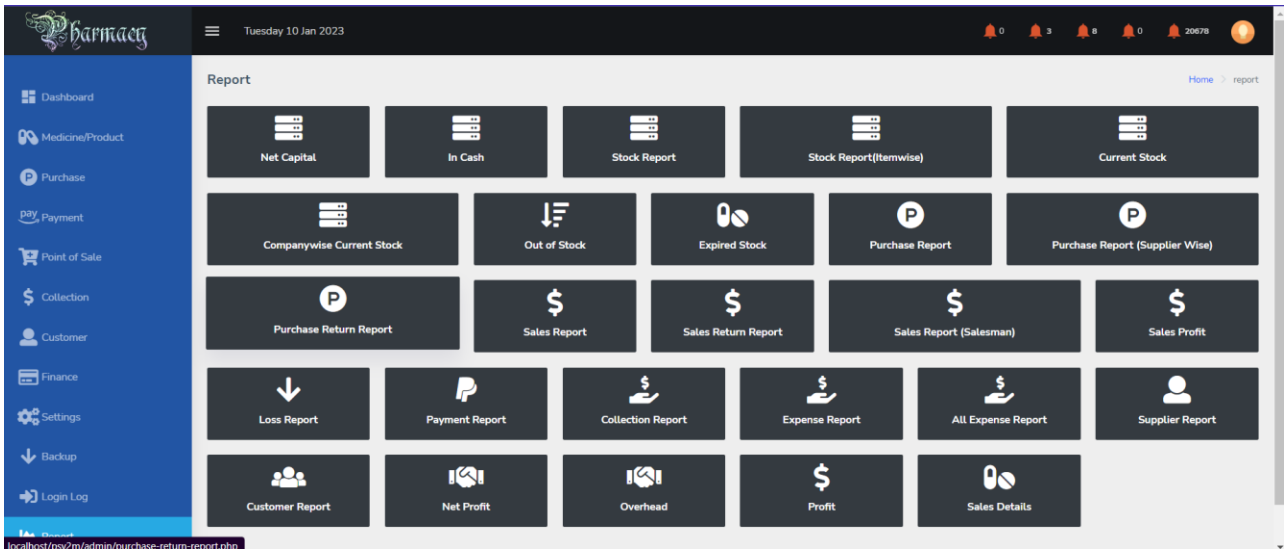
Collection:



Customer:

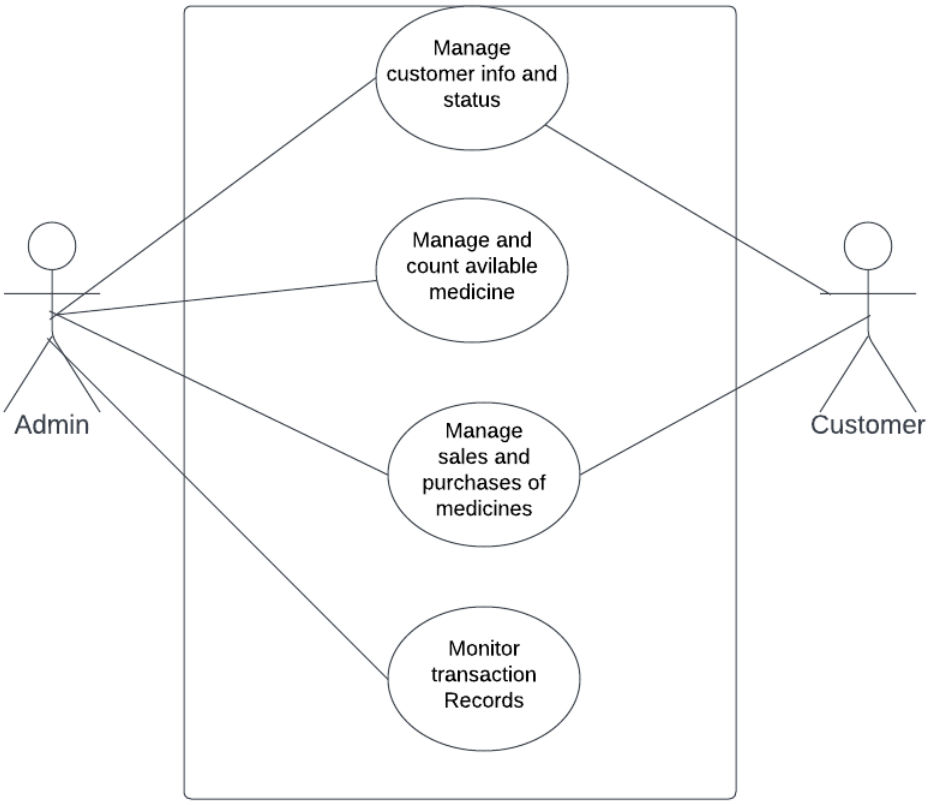


Report:

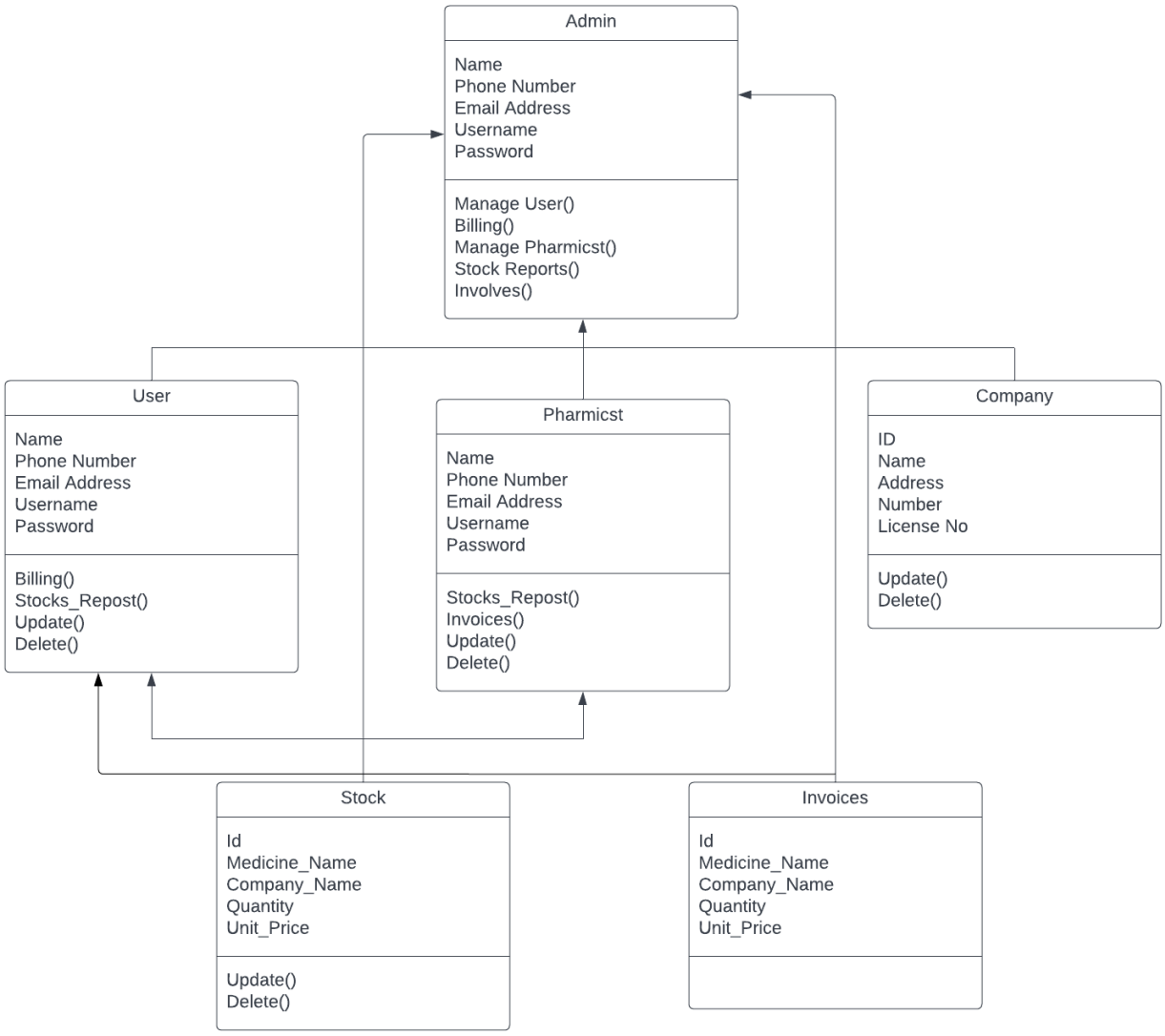


Chapter 9 – Engineering

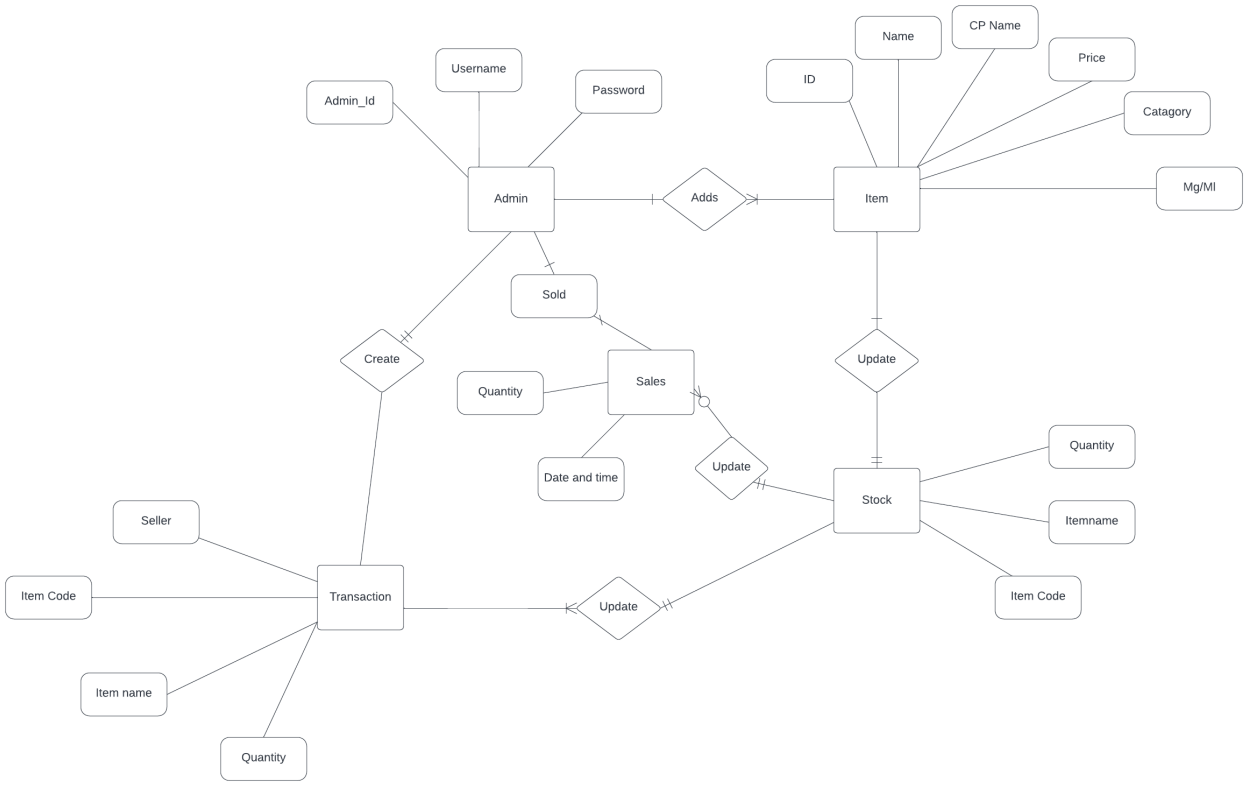
9.1 Use Case Diagram of the AMS



9.2 Class Diagram

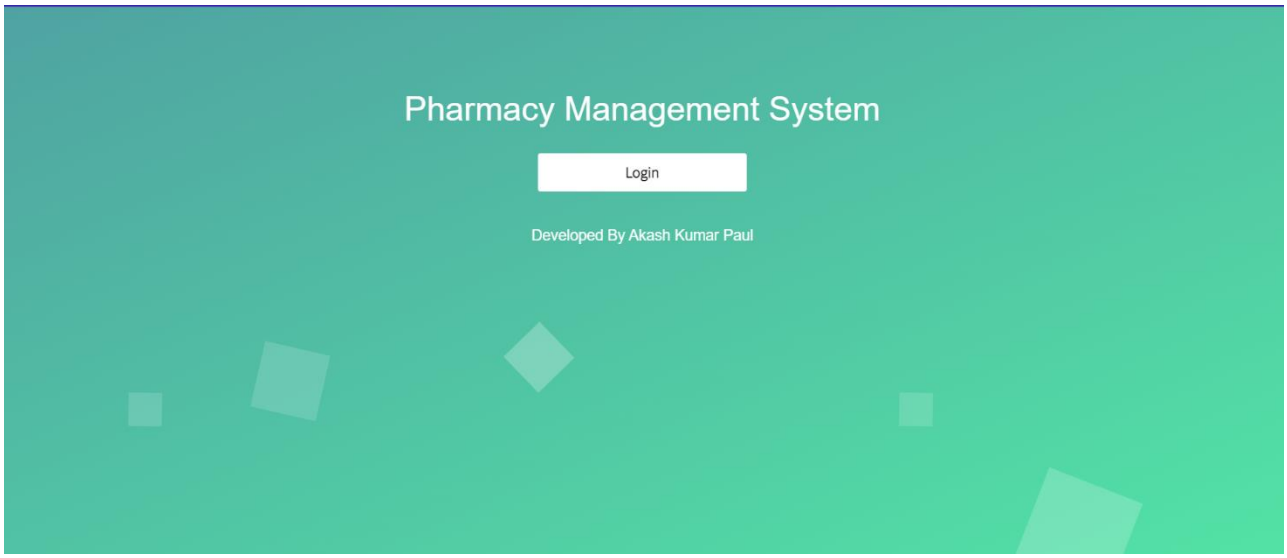


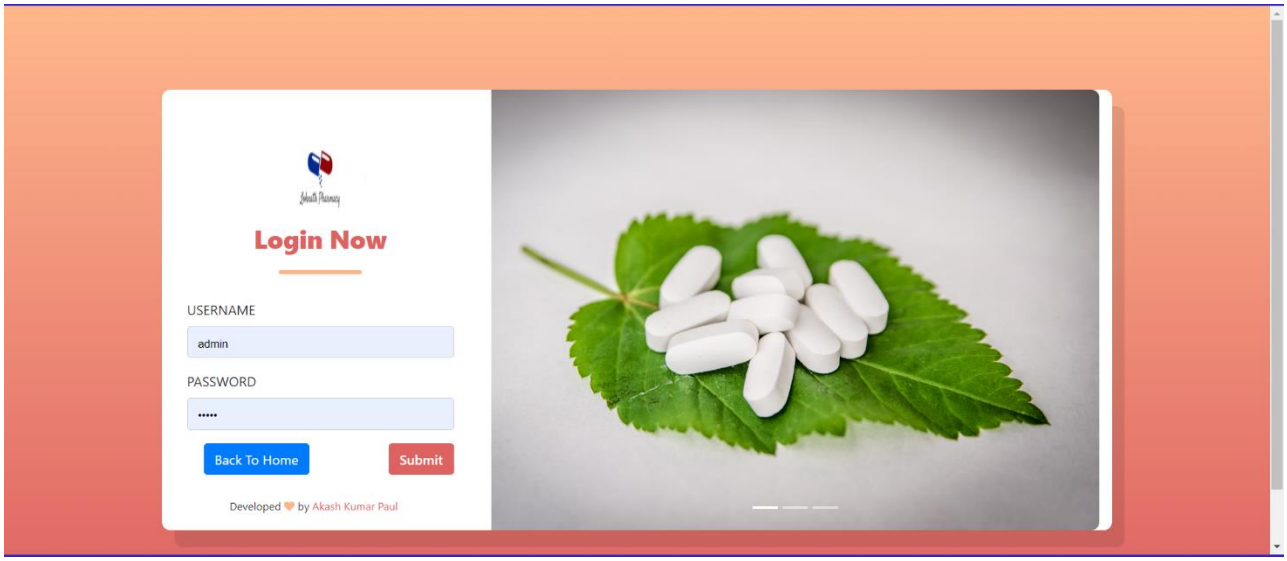
9.3 ERD diagram



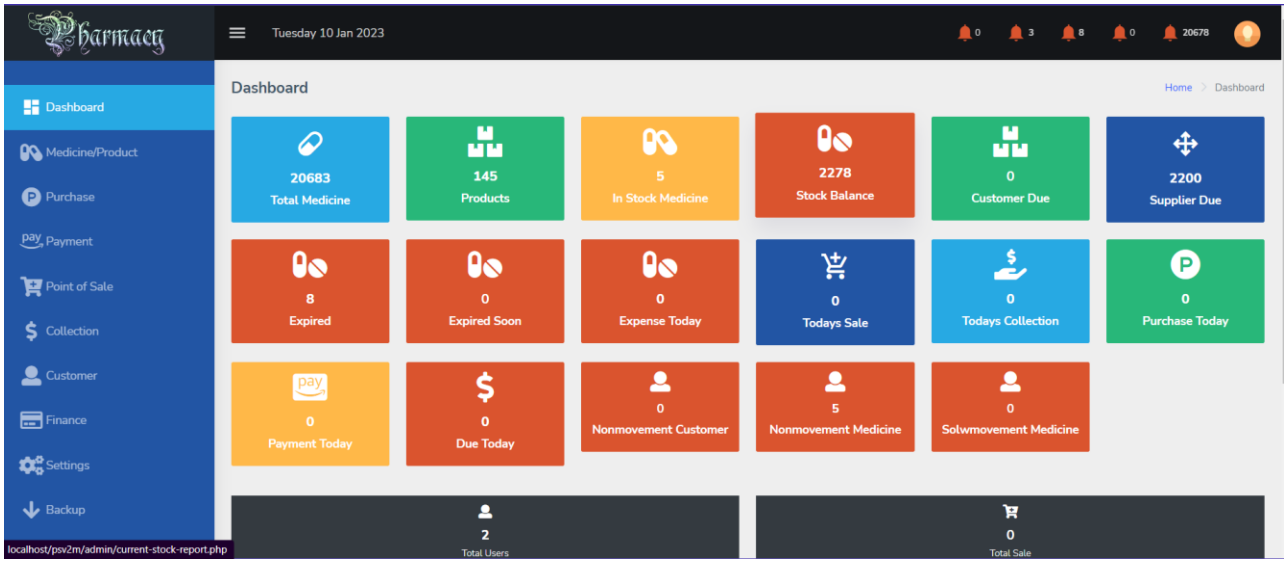
9.4 System Interface Design:

Homepage and login:

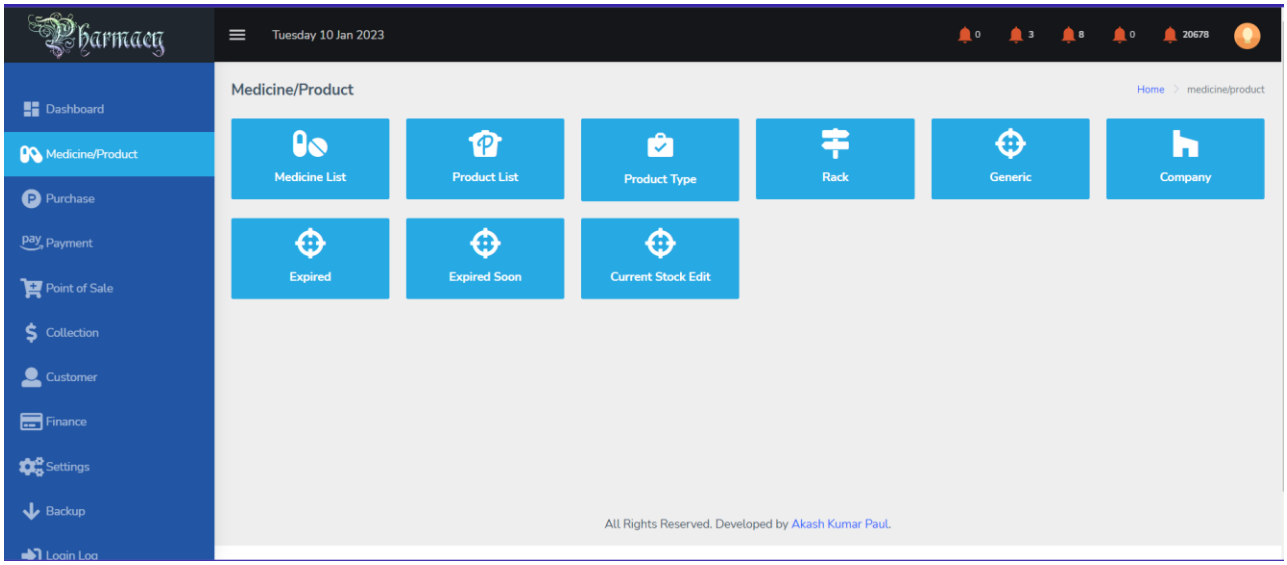




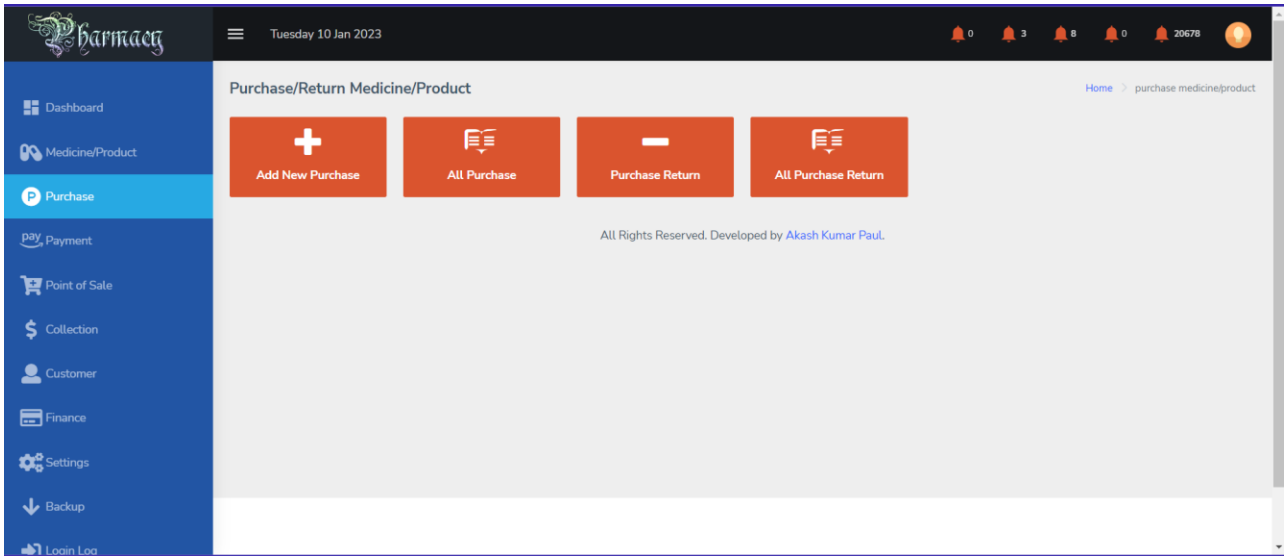
Dashboard:



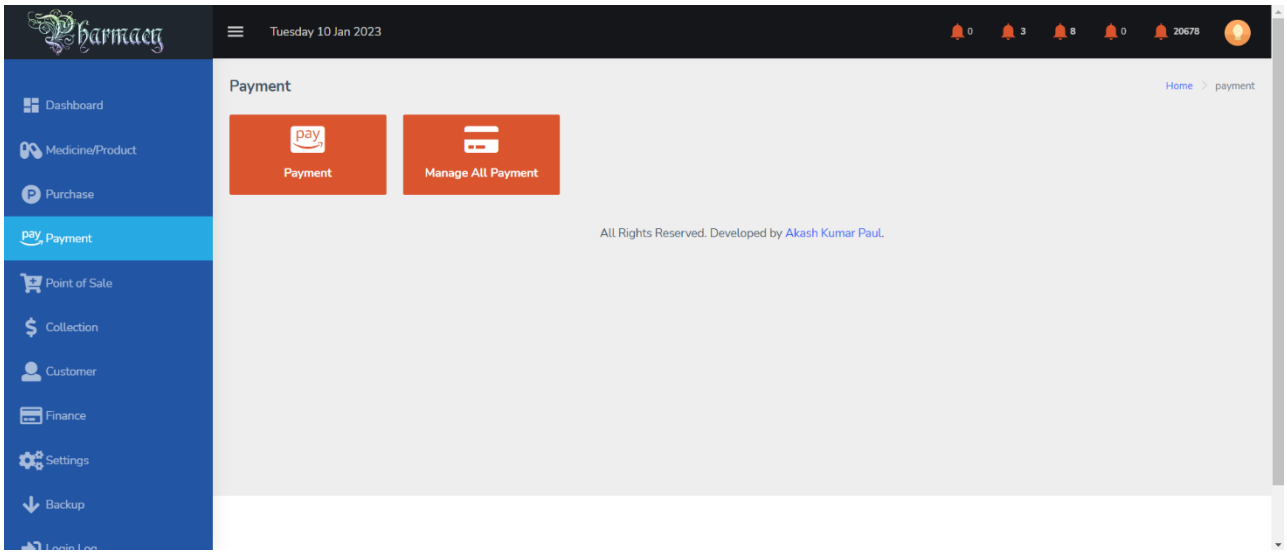
Medicine or product:



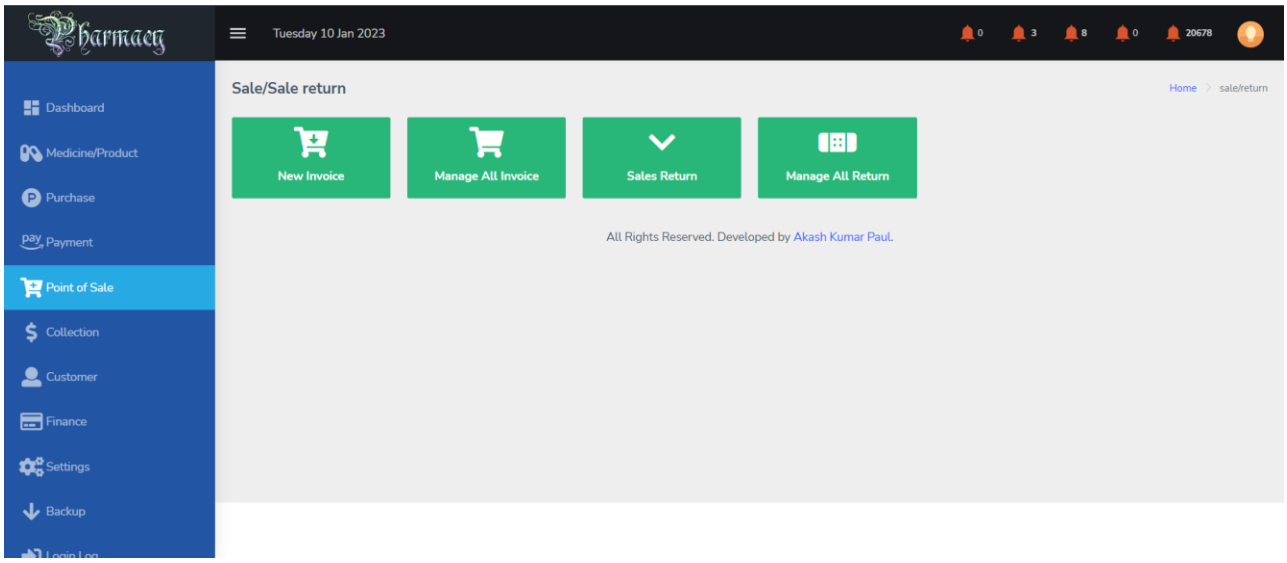
Purchase:



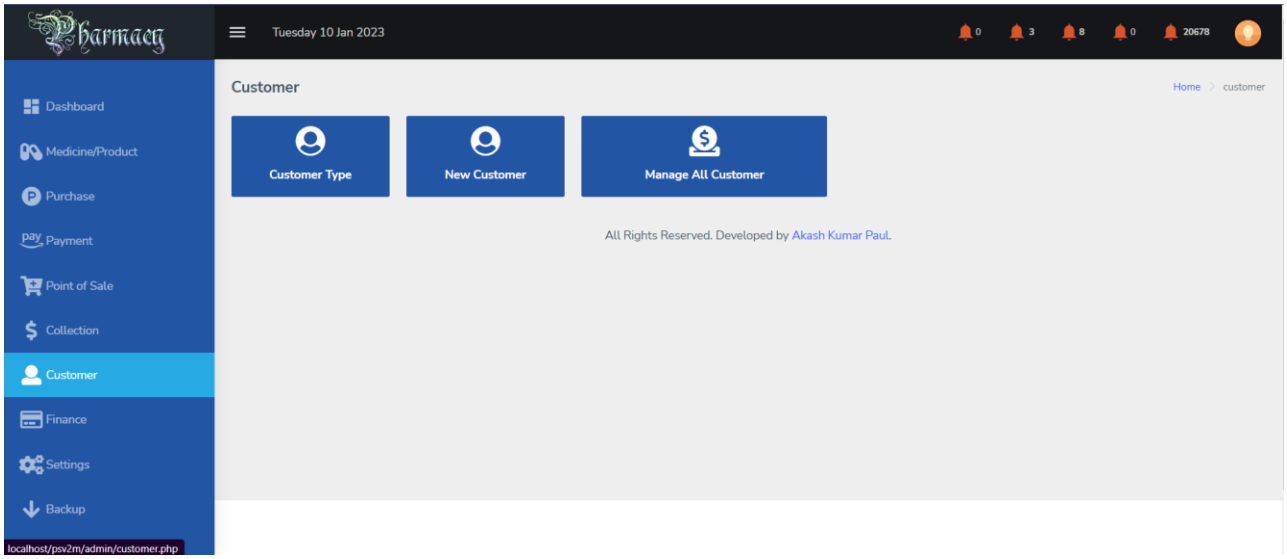
Payment:



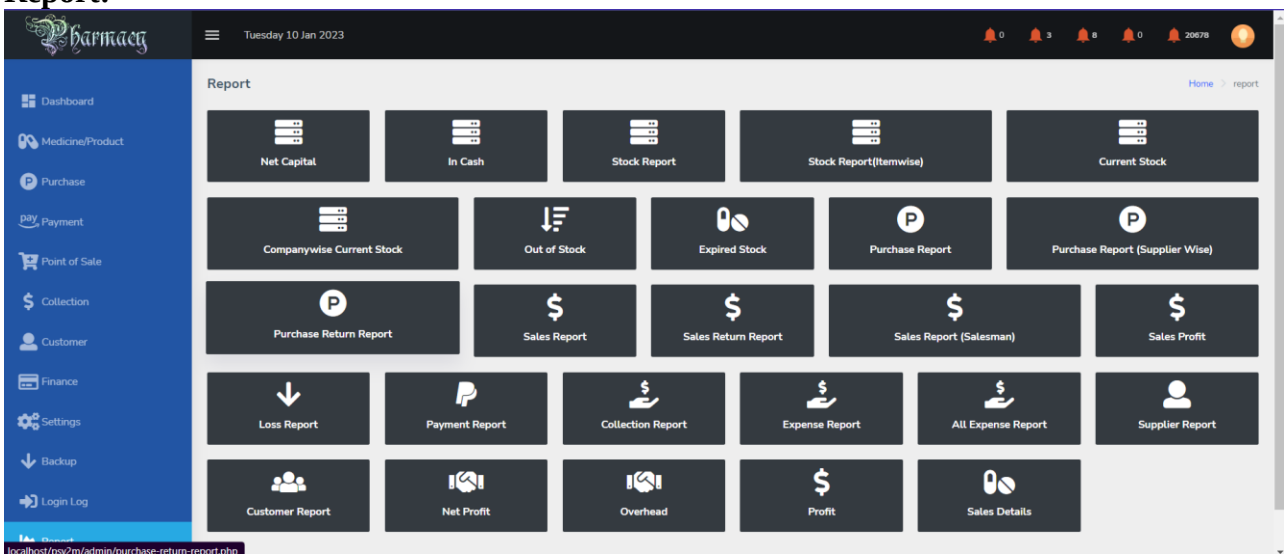
Point Of sale:



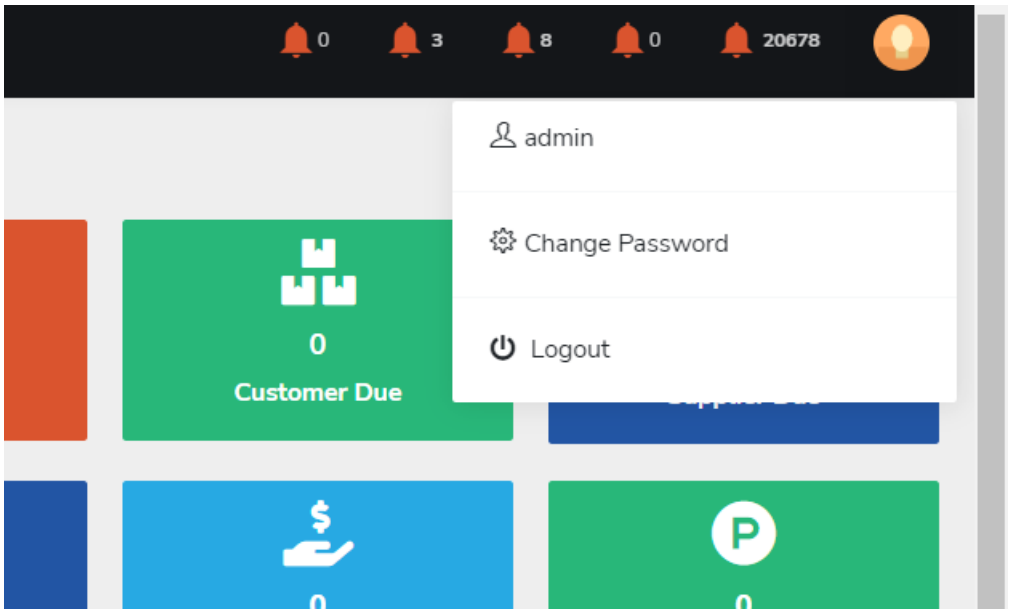
Customer:



Report:



Logout:

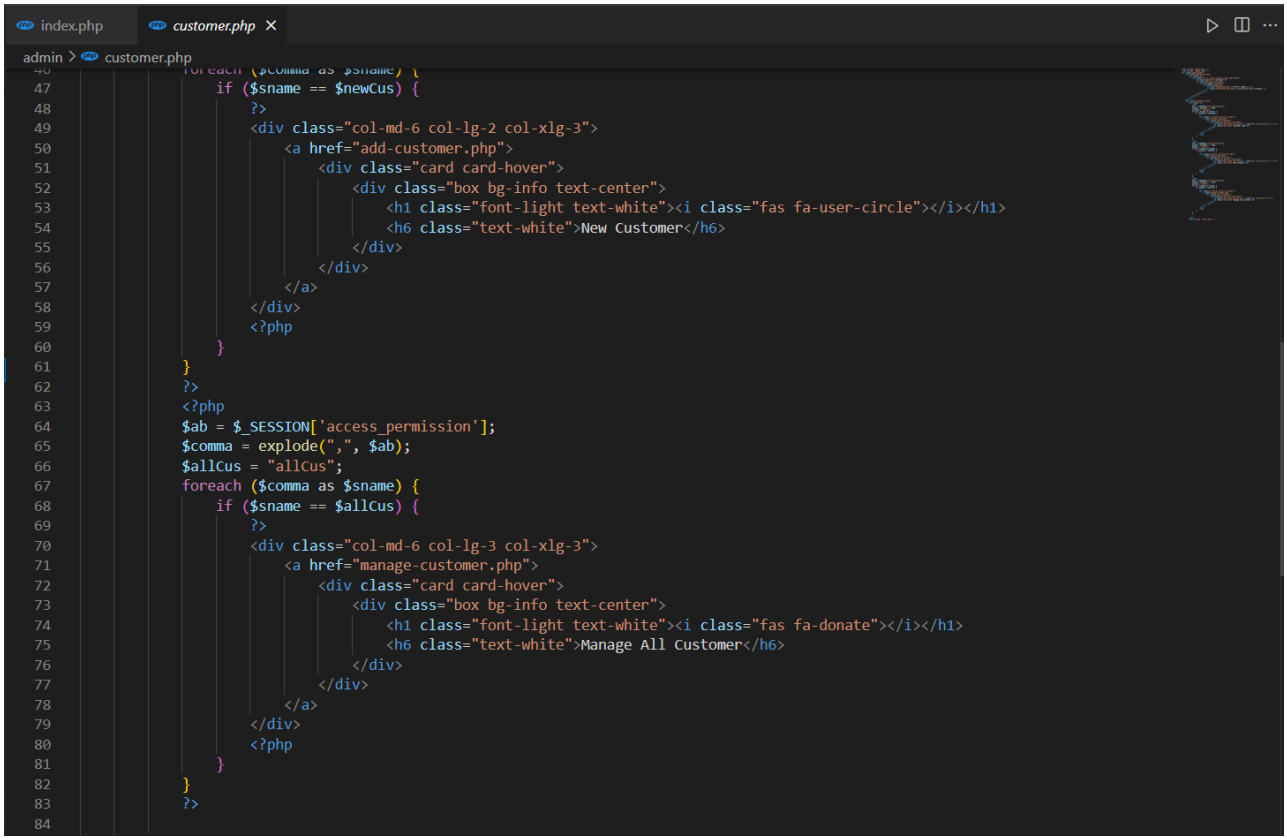


Chapter 10 – Deployment

10.1 Core Module Coding Sample:

I have employed HTML, CSS, and JavaScript in the front-end development of the PMS. And for back-end programming, I've utilized PHP Laravel 8 and the database management system MySQL. Therefore, I've listed some of the most important section code samples below:

```
index.php   customer.php
admin > customer.php
<?php include 'header.php'; ?>
<?php include 'sidebar.php'; ?>
<div class="page-wrapper">
    <div class="page-breadcrumb">
        <div class="row">
            <div class="col-12 d-flex no-block align-items-center">
                <h4 class="page-title">Customer</h4>
                <div class="ml-auto text-right">
                    <nav aria-label="breadcrumb">
                        <ol class="breadcrumb">
                            <li class="breadcrumb-item"><a href="#">Home</a></li>
                            <li class="breadcrumb-item active" aria-current="page">customer</li>
                        </ol>
                    </nav>
                </div>
            </div>
        </div>
    </div>
    <div class="container-fluid">
        <div class="row">
            <?php
            $ab = $_SESSION['access_permission'];
            $comma = explode(",", $ab);
            $cusType = "cusType";
            foreach ($comma as $sname) {
                if ($sname == $cusType) {
                ?>
                <div class="col-md-6 col-lg-2 col-xlg-3">
                    <a href="customer-type.php">
                        <div class="card card-hover">
                            <div class="box bg-info text-center">
                                <h1 class="font-light text-white"><i class="fas fa-user-circle"></i></h1>
                                <h6 class="text-white">Customer Type</h6>
                            </div>
                        </div>
                    </a>
                </div>
                <?php
                }
```



Customer sample

index.php payment.php

admin > payment.php

```php
<?php include 'header.php'; ?>
<?php include 'sidebar.php'; ?>
<div class="page-wrapper">
    <div class="page-breadcrumb">
        <div class="row">
            <div class="col-12 d-flex no-block align-items-center">
                <h4 class="page-title">Payment</h4>
                <div class="ml-auto text-right">
                    <nav aria-label="breadcrumb">
                        <ol class="breadcrumb">
                            <li class="breadcrumb-item"><a href="#">Home</a></li>
                            <li class="breadcrumb-item active" aria-current="page">payment</li>
                        </ol>
                    </nav>
                </div>
            </div>
        </div>
    </div>
    <div class="container-fluid">
        <div class="row">
            <?php
            $ab = $_SESSION['access_permission'];
            $comma = explode(",", $ab);
            $createPay = "createPay";
            foreach ($comma as $sname) {
                if ($sname == $createPay) {
                ?>
                <div class="col-md-6 col-lg-2 col-xlg-3">
                    <a href="create-payment.php">
                        <div class="card card-hover">
                            <div class="box bg-danger text-center">
                                <h1 class="font-light text-white"><i class="fab fa-cc-amazon-pay"></i></h1>
                                <h6 class="text-white">Payment</h6>
                            </div>
                        </div>
                    </a>
                </div>
                <?php
                }
```

index.php payment.php

admin > payment.php

```php
                    <a href="create-payment.php">
                        <div class="card card-hover">
                            <div class="box bg-danger text-center">
                                <h1 class="font-light text-white"><i class="fab fa-cc-amazon-pay"></i></h1>
                                <h6 class="text-white">Payment</h6>
                            </div>
                        </div>
                    </a>
                </div>
                <?php
                }
            }
            ?>
            <?php
            $ab = $_SESSION['access_permission'];
            $comma = explode(",", $ab);
            $allPay = "allPay";
            foreach ($comma as $sname) {
                if ($sname == $allPay) {
                ?>
                <div class="col-md-6 col-lg-2 col-xlg-3">
                    <a href="manage-payment.php">
                        <div class="card card-hover">
                            <div class="box bg-danger text-center">
                                <h1 class="font-light text-white"><i class="fas fa-credit-card"></i></h1>
                                <h6 class="text-white">Manage All Payment</h6>
                            </div>
                        </div>
                    </a>
                </div>
                <?php
                }
            }
            ?>

        </div>
        <?php include 'footer.php'; ?>

```

Payment sample

admin > dashboard.php

```php
<?php include 'header.php'; ?>
<?php include 'sidebar.php'; ?>
<?php
error_reporting(0);
?>

    <div class="page-wrapper">
        <div class="page-breadcrumb">
            <div class="row">
                <div class="col-12 d-flex no-block align-items-center">
                    <h4 class="page-title">Dashboard</h4>
                    <div class="ml-auto text-right">
                        <nav aria-label="breadcrumb">
                            <ol class="breadcrumb">
                                <li class="breadcrumb-item"><a href="#">Home</a></li>
                                <li class="breadcrumb-item active" aria-current="page">Dashboard</li>
                            </ol>
                        </nav>
                    </div>
                </div>
            </div>
        </div>
        <div class="container-fluid">
            <?php //if( Session::get('admin_type') == '1'){   ?>
            <div class="row">
                <!-- Column -->
                <div class="col-md-6 col-lg-2 col-xlg-3">
                    <a href="medicine.php">
                        <div class="card card-hover">
                            <div class="box bg-cyan text-center">
                                <h1 class="font-light text-white"><i class="mdi mdi-pill"></i></h1>
                                <!--<h5 class="text-white"><?php // echo $totalMedicine;          ?></h5>-->
                                <h5 class="text-white" id="totalMedicine">0</h5>
                                <h6 class="text-white">Total Medicine</h6>
                            </div>
                        </div>
                    </a>
                </div>
                <!-- Column -->
```

index.php dashboard.php

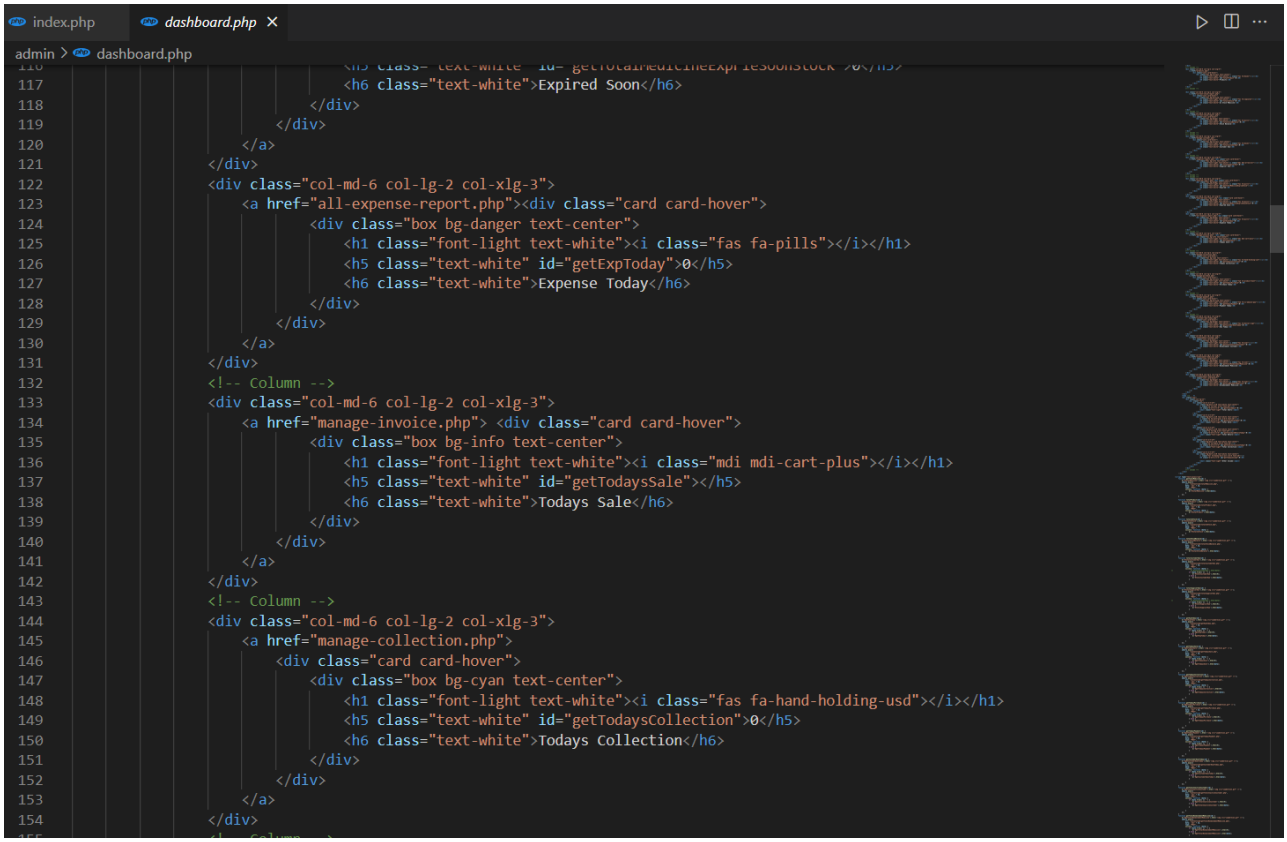
admin > dashboard.php

```
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="products.php">
        <div class="card card-hover">
            <div class="box bg-success text-center">
                <h1 class="font-light text-white"><i class="fas fa-boxes"></i></h1>
                <h5 class="text-white" id="totalProduct">0</h5>
                <h6 class="text-white">Products</h6>
            </div>
        </div>
    </a>
</div>
<!-- Column -->

<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="current-stock-report.php">
        <div class="card card-hover">
            <div class="box bg-warning text-center">
                <h1 class="font-light text-white"><i class="fas fa-capsules"></i></h1>
                <h5 class="text-white" id="totalInStock">0</h5>
                <h6 class="text-white">In Stock Medicine</h6>
            </div>
        </div>
    </a>
</div>
<!-- Column -->
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="current-stock-report.php">
        <div class="card card-hover">
            <div class="box bg-danger text-center">
                <h1 class="font-light text-white"><i class="fas fa-pills"></i></h1>
                <h5 class="text-white" id="totalStockBalance">0</h5>
                <h6 class="text-white">Stock Balance</h6>
            </div>
        </div>
    </a>
</div>
<!-- Column -->
<!-- Column -->
```

admin > dashboard.php

```
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="manage-customer.php">
        <div class="card card-hover">
            <div class="box bg-success text-center">
                <h1 class="font-light text-white"><i class="fas fa-boxes"></i></h1>
                <h5 class="text-white" id="totalCustomerDue">0</h5>
                <h6 class="text-white">Customer Due</h6>
            </div>
        </div>
    </a>
</div>
<!-- Column -->
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="supplier-report.php"><div class="card card-hover">
            <div class="box bg-info text-center">
                <h1 class="font-light text-white"><i class="mdi mdi-arrow-all"></i></h1>
                <h5 class="text-white" id="totalSupplierDue">0</h5>
                <h6 class="text-white">Supplier Due</h6>
            </div>
        </div>
    </a>
</div>
<!-- Column -->
<!-- Column -->
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="expired-report.php"><div class="card card-hover">
            <div class="box bg-danger text-center">
                <h1 class="font-light text-white"><i class="fas fa-pills"></i></h1>
                <h5 class="text-white" id="getTotalMedicineExprieStock"></h5>
                <h6 class="text-white">Expired</h6>
            </div>
        </div>
    </a>
</div>
<div class="col-md-6 col-lg-2 col-xlg-3">
    <a href="expired-soon-report.php"><div class="card card-hover">
            <div class="box bg-danger text-center">
                <h1 class="font-light text-white"><i class="fas fa-pills"></i></h1>
                <h5 class="text-white" id="getTotalMedicineExprieSoonStock">0</h5>
```



Dashboard sample

10.2 Possible Problem Breakdown

System development should be broken down into smaller activities to make it simpler and more efficient. A summary of some of the anticipated project breakdowns may be seen below.

• Analysis and construction of databases

• Improvement of admin panel administration

• Management of the customer box module

• Recent Price & Self Module Developments

• Creation of the module for the dashboard.

• Creation of modules for drug sellers and purchasers

- **Database analysis and design**

• Recognize and satisfy requirements.

• Compile the knowledge required to deal with the circumstance.

• Standardize the collected data.

• Produce data dictionaries and ERDs.

• Use the data dictionary as a guide to create a schema.

- **Improvements to admin panel management**

• Make the needed pages.

• Create systems for controlling managers and techniques for controlling goods sellers and purchasers.

• Create current pricing, news, and inventory management

10.3 Prioritization while Developing the Solution

We have already prioritized a list of criteria to assess the capabilities of the system. Now is the time to prioritize activities during the development phase. This is very important because random development can leave certain important skills undeveloped. Below is a prioritized list of development tasks.

- Complain about problems and offer solutions.
- Implementation of new prices.
- Warehouse implementation.
- The latest news and bulletin board developments are available here.
- Finally, creating an admin panel.

Chapter 11 – Testing

11.1 Test Plan Acceptance

Before we get into the documentation, we need to clarify the fact why we need to test. Test Save time and money. Software quality assurance helps developers find bugs and errors in the early stages of software development. Therefore, the time and money spent on repairs is greatly reduced.
A stable and competitive software product. Software architects intentionally review each block of the software development process against industry standards. By carefully checking various requirements such as reliability, functionality, ease of use, and portability, we ensure the high quality of our products.
Customer Satisfaction. A software application must meet all requirements to satisfy the customer. It should work smoothly without any glitches. An established software quality assurance process ensures that the product delivers everything the target group expects.

Functional Testing

Below are a few examples of functional testing:

Unit Testing:

• Farmers' areas of concern or complaint.
• Approval of farmer issues.
• List filtering by Farm Officer from the Farmer's Issue List to submit Approved, Pending, Rejected, and Resolutions.

Integration Testing

This project uses four types of non-functional tests:

• Log in to the system with correct credentials.
• Sellers add successful products.
• The buyer has successfully ordered the product.

Software principal:

First, make sure you're following the seven principles of software testing.

1) inspection shows the presence of defects
2) Comprehensive examination is not possible
3) Initial testing
4) defect clustering
5) Be aware of the pesticide paradox
6) Tests are context sensitive
7) Notice there are no errors
So these are the principles that I am committed to uphold and therefore I can confirm that they meet the requirements.

11.2 Test Case

The test cases should be created when the acceptance plan is finished. The PMS system's test scenarios include the following:

Unit test –
test case:

Test cases' names	**Unit testing**		
Test Class			
Overview of test cases			
Data's Original Source	**Step Test cases**	**E O**	**A O**

Module Test :
test case:

Test cases' names	**Module testing**		
Test Class			
Overview of test cases			
Data's Original Source	**Step Test cases**	**E O**	**A O**

Integration Testing:
test case:

Test cases' names	**Unit testing**
Test Class	
Overview of test cases	

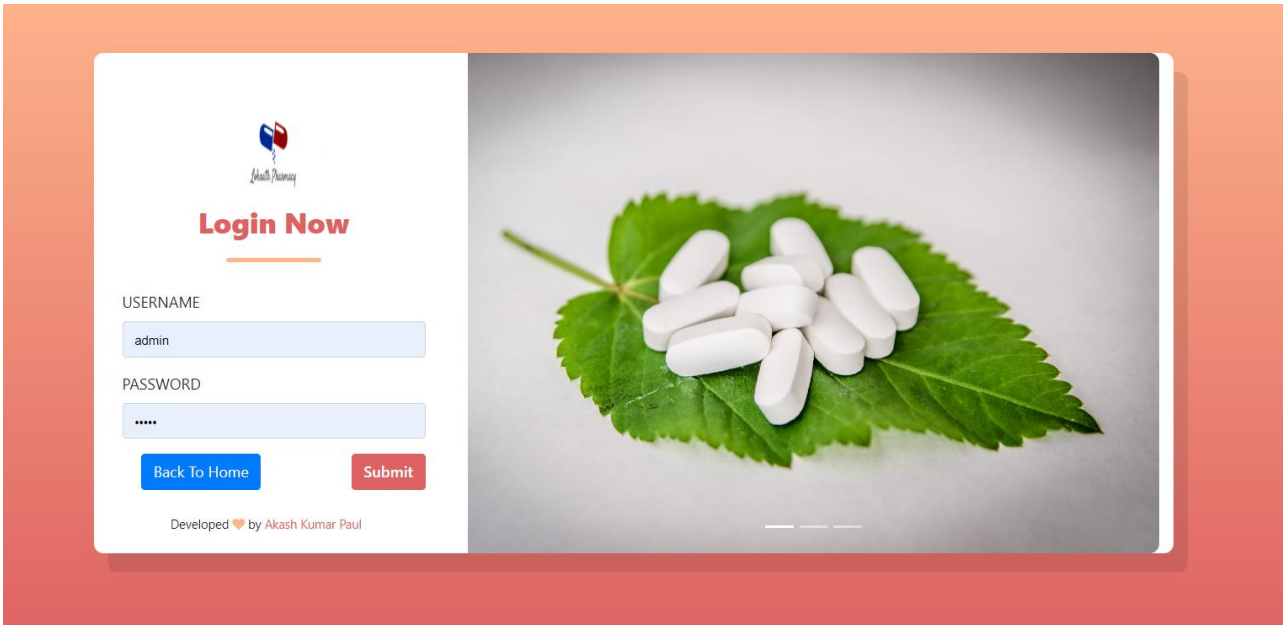
Data's Original Source	Step Test cases	E O	A O

11.3 Unit Testing

Test-1:

Test cases' names	Unit testing		
Test Class	either a store clerk or a login controller		
Overview of test cases	Verification of names for registration by a store owner or administrator		
Data's Original Source	**Step Test cases**	**E O**	**A O**
	1. Complete the required information without the Shopkeeper or admin name.	The Shopkeeper or admin name must not beempty, according to an error notice.	notification appears that Shopkeeper or admin nameis necessary in order to register.
	2. Fill and submit the form so see the result		

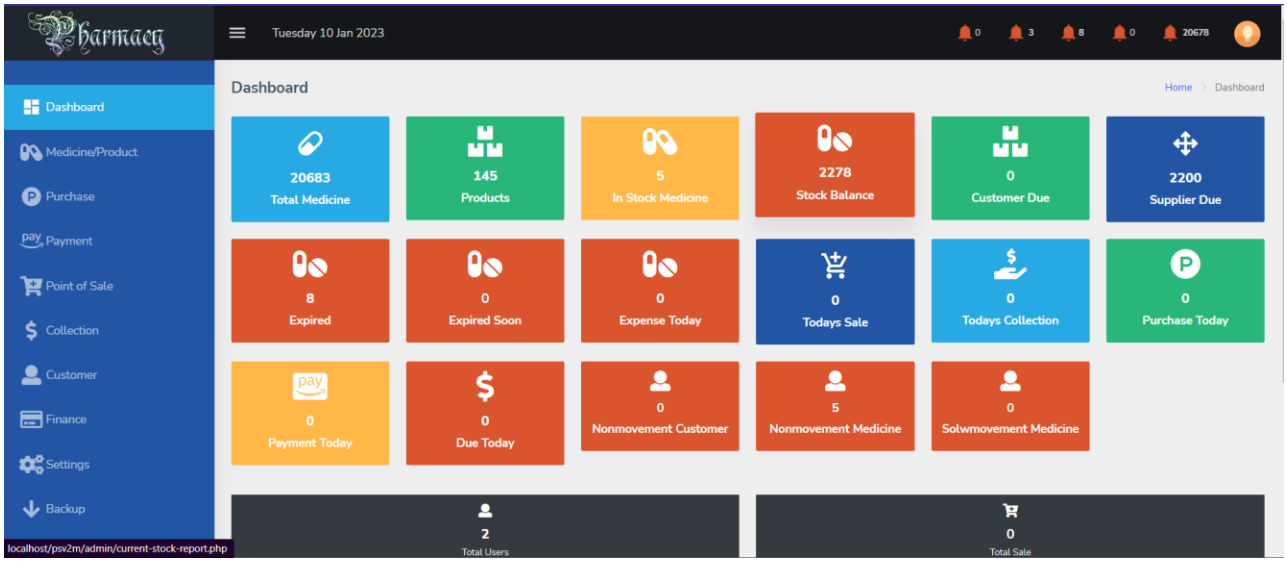
Shopkeeper or admin login validation:



Unit Testing
Test 2:

Test cases' names	**Unit testing**		
Test Class	Module for the admin controller		
Overview of test cases	Validation of all features.		
Data's Original Source	**Step Test cases**	**E O**	**A O**
	1. Login as admin in the system Check all module. For Example (Medicine, Customer, Stocks).	All the Function shoulddisplay correctly.	The result is as expected and showing Function and should show the following.

All module controled by Admin:



11.4 Module Testing

Medicine:

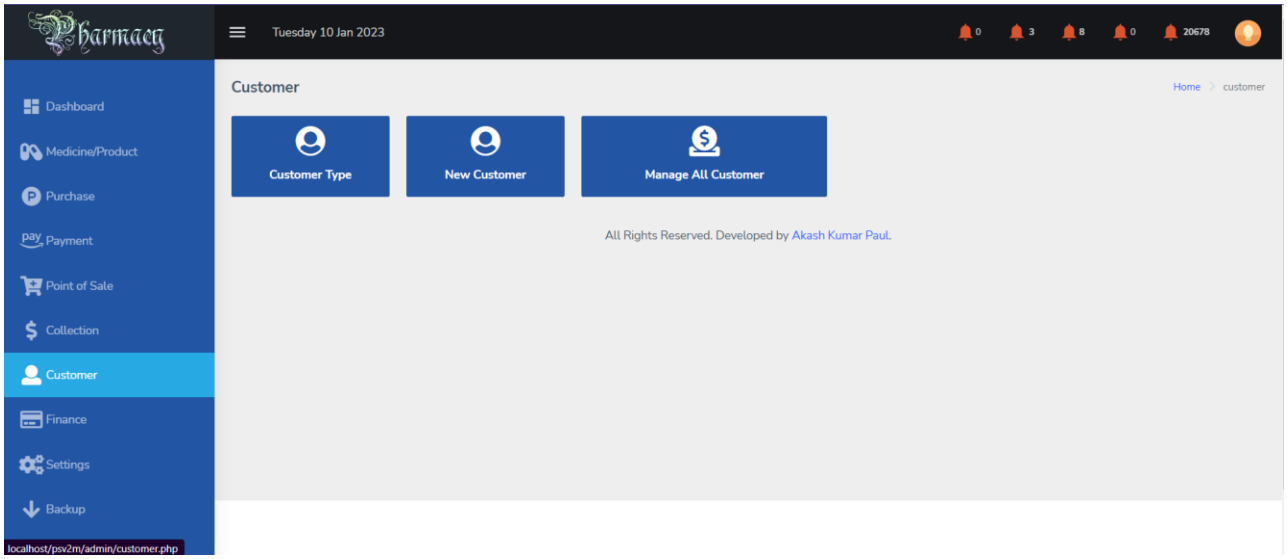
Module Testing

Module test-2:

	Module testing		
	Customer Module Controler		
	can input all the information about the customer		

	Log in as the administrator. Click Add New Customer in step two. 3. 3. Without entering any information into the form, click the Submit button.	There is a chance that an error notification may appear for all crucial fields.	The Sidebar name and image are displayed in the real-time output.

Customer:



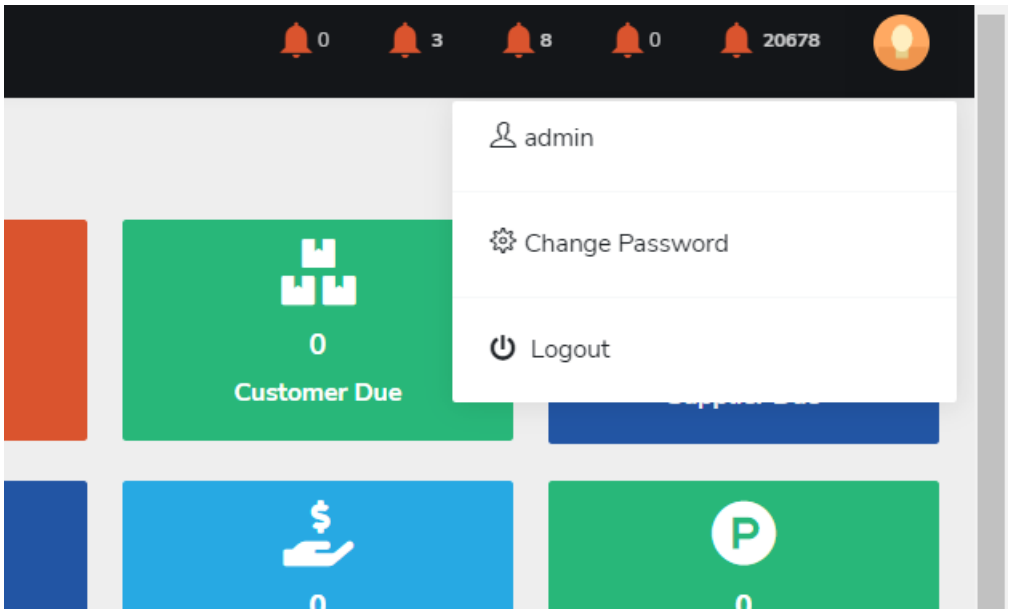
11.5 Integration Testing

Integration Test-1

Test Case-1

	Integration Testing		
	Logour Controller		
	The dashboard was redirected when the login attempt was successful.		
	1. the logout page. 2. Click the logout button	The admin should be routed to their home after successfullogin.	

Logout:



11.6 Accessibility Testing

Accessibility Test

Test Case

	Accessibility Testing		
	Admin Controller module		
	Testing the usability of the system.		

	Allowing an medicine shop to utilizethe system.	The system is simple and convenient to use	The result is also asexpected and simple.

Chapter 12 – Implementation

12.1 Training my LPMS project

must receive training to become accustomed to the newly developed system. When the system is completely operational can handle tasks through the system.

Serial	Ordinary User	Scope	Time	Com
1	User	Posting of every current and previous details of medicine, All problems need to resolved from this system.	5 Hours	Generalusers are learning the procedures nicely.
2	Admin	database for the right medicine for new customer info their day to day tasks	3 hours	The administrator only needs to understand the activities.

12.2 Implementation Scheme

Big Bang:

Big Bang works by turning on the new system and turning off the old one simultaneously. Because it uses the new system as soon as the test is through, this technique is substantially quicker than the others. There's a potential that some data

12.3 Scaling:

Because this is a research study, there were no intentions to consider application scalability.

12.4 Load Balancing

The term "load balancing" refers to the process of making a system more user-friendly. How many people are using the system at once and how long it has been in operation are both indicated by the number of users struck. This is known as load equalization or load balancing. By spreading out the demand among several servers, it enables the system to keep running properly. A proper load balancing solution must be developed due to the significant number of daily hits and the presence of six distinct types of users.

Chapter 13 – Critical Appraisal and Evaluation

13.1 Objective Could be Met:

those that were stated at the commencement.

- System for medicine add
- Management of payment Problem Solution given by the
- Management of Medicine Buy and Sell
- Management of most recent medicine pricing
- Managing delivery records

Achievement rate others

Pharmacy management system is an online system that helps a pharmacy store to manage its data, accounts, inventory and billing. As it improves the efficiency of your pharmacy business and helps you to streamline operations.

Achievement rate others:

Pharmacy management systems are also known as pharmacy software, or sometimes just Pharmacy. Pharmacy management systems are tools used by pharmacies either to track their inventory or in order to receive text messages from the customers and provide them with offers, discounts and other useful information.

Achievement rate and others:

A pharmacy management system (PMS) is designed to improve the businesses' efficiency and performance. The pharmacy industry has been facing many challenges and problems, which can be addressed by implementing a PMS to identify issues, create a database of known issues, maintain an inventory of products with accurate data, enhance communication within the shop...

13.2 Totally missed the mark on the objective

Practically the entire article is consulted for the activities. However, there is just one target that hasn't been struck.

The grounds why it was impossible to contact

Lack of time to do the chores is the key explanation why the target has not been achieved. Due of the limited time constraint, it would be quite challenging. Another challenge is the need for an ongoing server that facilitates the job, which is also very challenging. The program cannot evolve since it is unable to run without a live server.

What may have been accomplished

The time frame needs to be rescheduled in order to speak with the highlights, adding more time to the component's completion. It also needs to learn how to.

Chapter 14 Lessons Learned

14.1 Pre-Project-Review-closing

I have to follow a predetermined structure from the beginning while developing the Pharmacy Management System, which is mostly a web-based application that calls for project proposal submission, project title defense, development, and documentation. The system's primary objectives are to address farmer challenges, consolidate the whole process, and guarantee that all prospective new and product buy-sell agreements are examined.

14.2 Lessons I've Learned

I changed a significant number of important structural building elements. I've learned how to work with a framework in many areas, including structure, organization, and databases. I've also made improvements in my project management and testing skills (black and white box, unit and acceptability, usability and accessibility), which will be useful in my future career. Additionally, it helps me refine my programming skills. I've gained knowledge of the Haversine distance calculation method and the PHP framework Laravel's multi-level authentication and permission. I've been compelled by the project to gather a ton of fundamental knowledge that will be useful to me in the future.

14.3 Things I've Discovered

I altered numerous critical structural building components. In several areas, such as structure, organization, and databases, I've learnt how to operate with a framework.

14.4 What Worked as a Solution

Whenever an issue was brought to my notice, I always sought a solution. On my project, I utilize email authentication to decrypt the coordinates. I utilized a specialized authentication technique that included

You'll need middleware and a controller to implement multi-auth. To finish on time, I made a lot of work and closely adhered to the deadline.

Chapter 15 – Conclusion

15.1 Summary of the Project

Pharmacy Management System is a software help manage a healthcare shop. Drug warehouse, prescription management, inventory monitoring ensure patient medication safety and satisfaction. Pharmacy management system is software that makes it possible to store and keep track of all the important information of your pharmacy. It's used to manage the store from inventory, sales and distribution to human resources, marketing and customer service. The pharmacy management system helps to improve work efficiency and productivity by allowing pharmacies to track their inventory levels, create reports from historical data, and boost profits using more effective inventory management.

15.2 Goal of the project

A pharmacy management system integrates all aspects of a pharmacy business and helps pharmacies meet their goals in an efficient, effective way. The main goal of pharmacy management system is to provide information and support the pharmacy, pharmacist, patient and hospital staff. An integrated pharmacy management system (PMS) helps pharmacists and pharmacies to track inventory, manage workflow and schedule appointments. PMS has the ability to change how a pharmacy operates, empowering pharmacists to be more efficient and improve customer service. Pharmacies need to meet the customer's expectations, learn and adapt to market trends, increase profits and sustain success. Pharmacy management systems (PMS) are becoming increasingly important in helping pharmacies deliver a patient-centered experience by automating daily processes, improving efficiencies and boosting profitability.

15.3 My documentation-related actions

I have completed all the tasks that the documentation has required of me since it started. Among other things, I engaged in time boxing, multiple visuals, and analysis. Additionally, the text offers a variety of goals that are well handled. This report has all the data needed to complete the project.

15.4 Value of the Project

A pharmacy management system is a valuable helps to organize a pharmacy's workflow, increase efficiency, reduce costs and improve business performance. Do you know what value is? If a pharmacy management system can increase the value of your pharmacy and help you stay competitive, then it's absolutely worth your while to invest in the right one. management system is a powerful pharmacy, which helps pharmacist to run his store efficiently. The computerized

software uses which makes the work easy and saves much of your time.

15.5 My Own Experience

Numerous online and offline research projects have been carried out by me. Fixing bugs was the most challenging task. After conquering every obstacle, I was finally able to use my technique. I've learned a lot about myself while working on this project. I encountered a variety of difficulties and overcame them, acquiring important experience. I gained great experience managing a large project while also learning how to accomplish all of the project's goals quickly.

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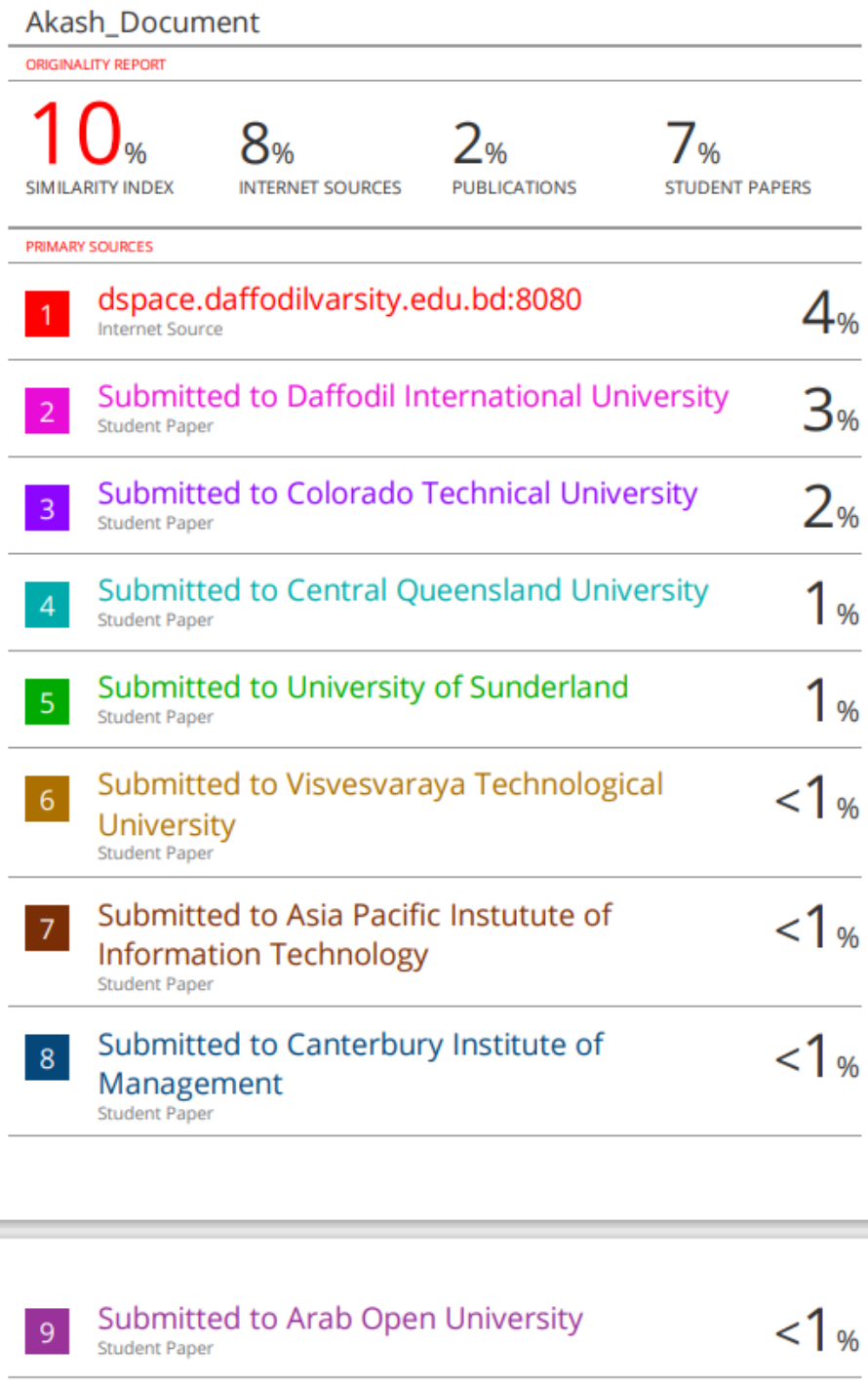

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