



Students Project Backlog

Submitted by

SABIQUN NAHAR

ID: 171-35-1990

Department of Software Engineering

Daffodil International University

Supervised by

Mr. Khalid Been Badruzzaman Biplob

Senior Lecturer

Faculty of Science and Information Technology

Department of Software Engineering

Daffodil International University

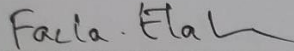
Spring-2023

DAFFODIL INTERNATIONAL UNIVERSITY

APPROVAL

This project titled on "Students Project Backlog", submitted by **Sabiqun Nahar (ID: 171-35-1990)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

BOARD OF EXAMINERS



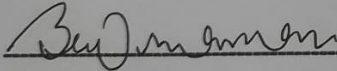
Chairman

Dr Md. Fazla Elahe
Assistant Professor & Associate Head
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



Internal Examiner 1

A.H.M Shahariar Parvez
Associate Professor
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



Internal Examiner 2

Khalid Been Budruzzaman Biplob
Lecturer (Senior Scale)
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



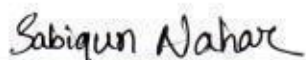
External Examiner

Md Tanvir Quader
Senior Software Engineer
Solutions Architect, a2i

DECLARATION

I hereby declare that this project has been done by me under the supervision of Mr. Khalid Been Badruzzaman Biplob, Lecturer (Senior Scale), Department of Software Engineering, Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

Submitted By



Sabiqun Nahar

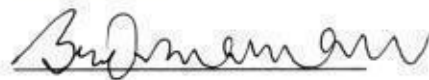
ID: 171-35-1990

Department of SWE

Faculty of Science & Information Technology

Daffodil International University

Certified By



Mr. Khalid Been Badruzzaman Biplob

Lecturer (Senior Scale)

Department of SWE

Faculty of Science & Information Technology

Daffodil International University

ACKNOWLEDGEMENT

I want to express convey deep gratitude to the Creator of the Universe for providing the idea and the means to complete this endeavor. I present Hazrat Mohammad (SM), peace be upon him, with Durud. In addition, I also want to express appreciation to Daffodil International University for giving us the potential to succeed. Dr. Imran Mahmud, Associate Professor and Head of the Software Engineering Department, I wanted to convey my gratitude for all of your help with my studies. Having Sir Md. Khalid Been Badruzzaman Biplob in my life is truly a blessing, to sum up.

ABSTRACT

"Students Project Backlog" is the name of the project. It is an online application that helps student teams collaborate in real time while organizing project tasks.

List of Tables

Observation	Title of the figures	Page number
Tabular 1	Functional Conditions	4
Tabular2	Non-Operative Conditions	5
Tabular3	Schedule	39
Tabular4	Case Study No. 1	39
Tabular5	Case Study No. 2	40
Tabular.6	Case Study No. 3	41
Tabular7	Case Study No. 4	41

Observation	Name of figures	Page
As an illustration 1.4	Schematic	2
As an illustration 1.5.1	Gantt Schematic	3
As an illustration 1.5.2	Dispersal of Work	3
As an illustration 3.1	Utilization Illustration	11
As an illustration 3.2	Diagram of Activities	23
As an illustration 3.3	Sequence Schematic	34
As an illustration 4.1	Entity Schematic	45
As an illustration 4.2	Schematic of the Class	46

List of Figure

Section-01

Overview

1.1 Overview of the Project

The Student Project Backlog servers as an omnipresent web application that aids in facilitating individuals or teams alike in overseeing diverse project and task monitoring endeavors. This encompasses the capacity to tract active lists or checklists of tasks presented on a board, copuled with a comprehensive visual snapshot of impending tasks on cards. The system goes a step further than the rest by proactively reminding users about their honing deadlines as to avoid missed assignments.

1.2 Project Goals

1.2.1 Historical context

Online apps similar to Students Project Backlog are widely available. There aren't any, though, that offer the ability to email notifications about tasks.

1.2.2 Benefits & Beneficiaries

- ◆ Easy management of project tasks
- ◆ Cost free
- ◆ Students
- ◆ Teacher
- ◆ Admin

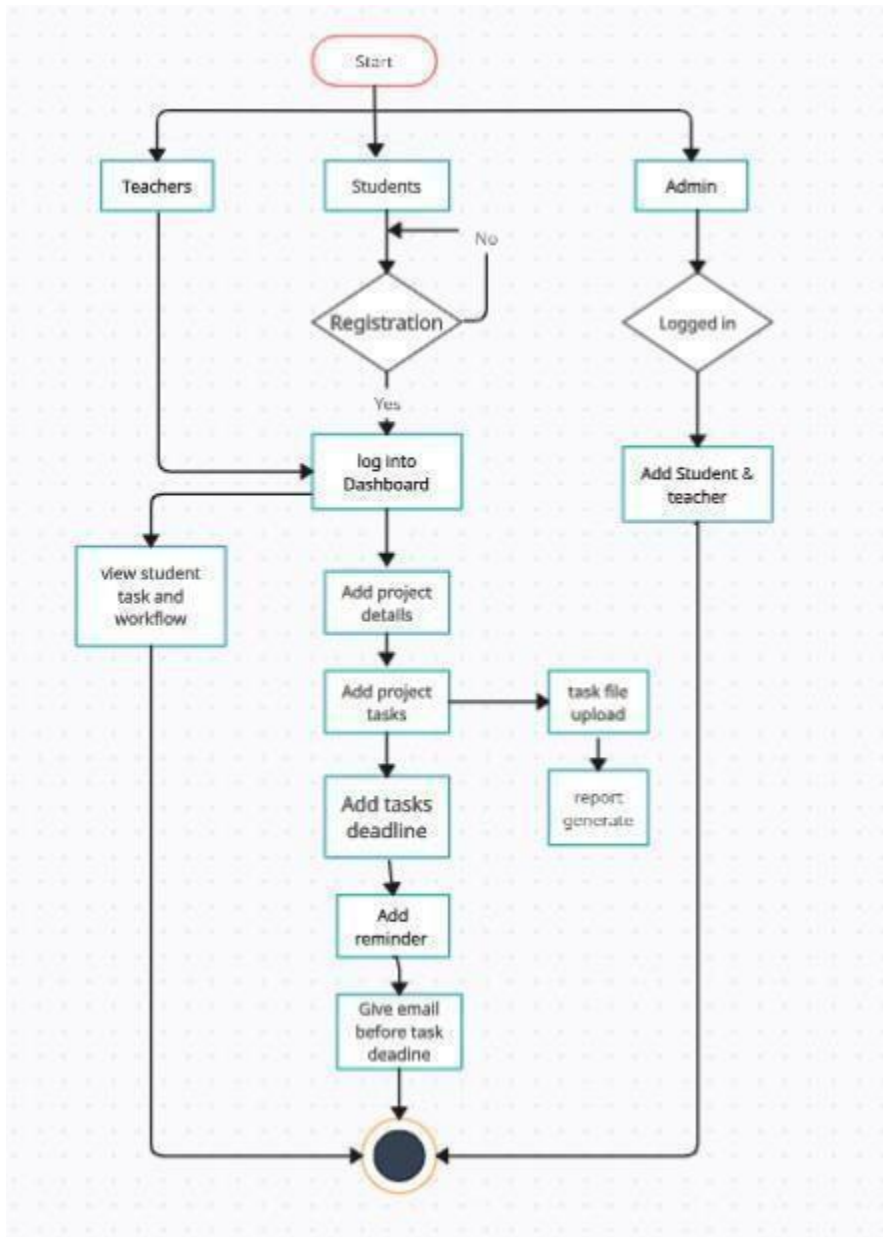
1.2.3 Goals

- ❖ Provide timely notifications to students about impending deadlines.
- ❖ Students can share their work with team members.
- ❖ Its totally free of cost

1.3 Stakeholders

- Admin
- Teachers
- Students

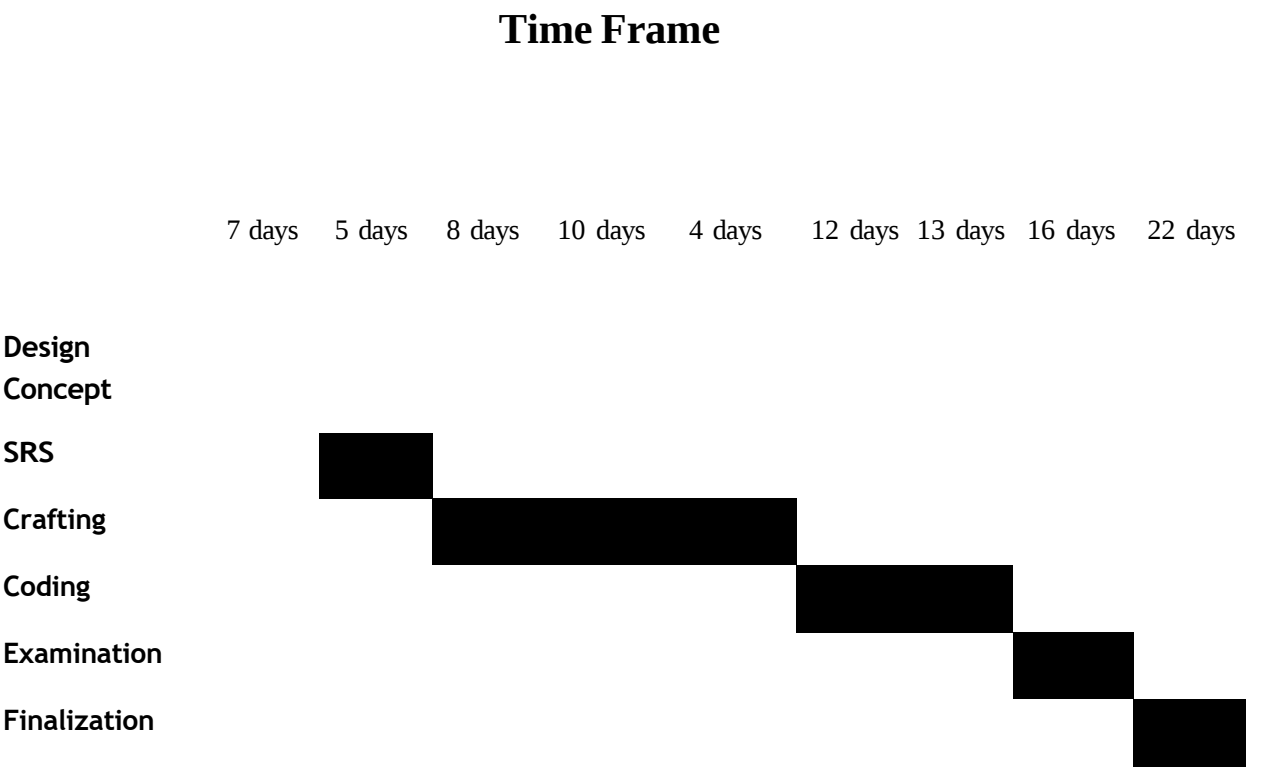
System Architecture Proposal



Block Schematic

Timeline for the project

Gantt Illustration



Description of Software Requirements for Project Proposal	Sabiqun Nahar	5
Software Requirement Specification	Sabiqun Nahar	7
Design	Sabiqun Nahar	24
Coding	Sabiqun Nahar	18
Testing of Software	Sabiqun Nahar	9
Project Closure	Sabiqun Nahar	6

Figure 1.5.2: Work Distribution

CHAPTER-02

Standardization of Software Requirements

2.1 Useful Requirements

Necessary Functions of my project is being broached below-

ID	Identify	Synopsis	Useful / Not operating	Priority
FRQ-01	Enrollment	Students & teachers can register using email id and password.	Useful	High
FRQ-02	Log in	Logging in requires students and teachers to have.	Useful	High
FRQ-03	Add Student & Teacher	Admin can add student & teacher.	Functional	High
FRQ-04	Create to-do list	Students can create their to-do list according to project task.	Functional	High
FRQ-05	Task Reminder	Student can set reminder according to their task.	Functional	High
FRQ-06	Upload File	Student can upload their task file.	Functional	High
FRQ-07	Report Generate	Student can upload any data file and generate a reports: bar, pie chart.	Functional	High
FRQ-08	View Task	Teacher can view students project workflow and their task.	Functional	High
FRQ-09	Log out	Students, Teachers, Admin can log out the system.	Functional	Medium

2.1 Non-Essential Function

The non-functional requirements for my project are outlined below.

ID	Name	Synopsis	Not operating	Priority
NFR-01	Protection	The adoption of real-time authentication protocols results in fortified security against unauthorized access.	Non-Functional	High
NFR-02	Accessible	All users should be able to access and use the system around-the-clock.	Non-Functional	High
NFR-03	Precision	Data or process requirements centered around specifying the degree of accuracy that the solution must achieve in recording or generating data.	Non-Functional	High
NFR-04	Maintenance	The ease with which the system can be supported, modified, and improved.	Non-Functional	Medium

2.1.1 Criteria for Productivity

2.1.2 Needs for Transmission along with Acceleration

1. The project harness the benefits of an ACID-compliant database such as MySQL with PHP
2. The response times of landing pages are less than a millisecond.

2.1.3 Special Education Needs for Determination or Dexterity

1. Effortless creation of project task and collaboration with teammate.

1. Administration features for admins
2. Ability of teachers to view all submitted tasks

2.1.2 Capacity Requirements

1. Concurrent access

2.2 Coupling Syndromes

2.2.1 Expectations for Integrity

1. Admin, Students & Teacher can only login using their assignment unique username and password
2. Admin can register students & teacher
3. Students can receive task notifications before completing submission
4. Students have the ability to upload their project documents and generate reports

2.2.2 Availability Requirements

1. Familiarity with web applications and/or websites
2. Timely updates

2.3 Sustainability and Adaptability Conditions

2.3.1 Protection prerequisites

1. Update and modify as requirements update or change
2. Have data backup and recovery protocol in place
3. Uphold industry standard security processes

2.5.2 Supportability Requirements

1. Maintain updated database and other project dependencies
2. Maintain OS security patches, Compose build tool and host system

2.5.3 Needs for Flexibility

1. Program is crucial.
2. A lot of students can use this online application to complete their projects.

2.5.4 Conditions for Resilience and Variability

1. This Educational web application can be a crucial support system
2. This Web application is a useful aid
3. Students can easily track his or her progress

2.4 Crucial for Confidentiality

2.4.1 Limitations for Usage

1. The system is only accessible to logged-in users.
2. Guests are not allowed in this system.

2.4.2 Integrity Requirements

2.4.3 website is restricted to registered users only; access is restricted to members only.

2.4.4 Privacy Requirements

1. Authentication from Google

2.5 Usability Standards

The application is simple to use and comprehend.

2.5.1 Interface Standards

Both using and understanding the program is simple.

UH-01	Usability of the system is a prerequisite for students, teachers, administrators, and other affiliated stakeholders.
Description	The apparatus displays the numerous possible usage for users
Stakeholders	Admin, Students, Teachers

2.7.2 Understand Ability and Politeness Requirements

This section describes more requirements.

UH-02	The features of Students Project Backlog
Description	The system achieves greater operational efficiency through enhanced user-friendliness, bolstered by additional features. Moreover, it possesses user-oriented cognitive capabilities. Importantly, the system adheres exclusively to terminologies outlined within this web application.
Stakeholders	Admin

2.7.3 Accessibility Requirements

There are no access requirements beside those that has been outlined below:

- AR-1: Log in as a [Admin](#)
- AR-2: Log in as a Student
- AR-3: Log in as a [Teacher](#)
- AR-4: Log in as a Admin
- AR-5: Log out as a Student
- AR-6: Log out as a Teacher

To get access to this system or a specific module the system must provide an access control list preventing unauthorized access and privilege escalation attacks.

2.7.4 User Documentation Requirements

UH-03	The system developer documentation
Description	During the development of this project, I have outlined user documentation requirements.
Stakeholders	Admin

2.8 Look and Feel Requirements

The look and feel requirement section outlines the target ambiance and stylistic characteristics of the product's visual appearance. These specifications articulate the general envisaged visual tone and is not to be misconstrued as a concrete implementation.

2.8.1 Appearance Requirements

It should be clear to the system admin, learners and parents need to be filled and which can be left blank in this system.

LF-01	Labels of mandatory fields must be bold.
Description	Label of obligation fields must be bold to identify them as being of obligation.
Stakeholders	Admin, Students, Teachers

2.8.2 Style Requirements

We will provide web application user interface. This requirement does not only define the necessity to use a CSS but also the requirements regarding the CSS's content as well as CSS framework like Bootstrap.

LF-02	The look and feel must be controllable using style sheet.
Description	The styling of the elements of the android application user interface will be defined using CSS, Bootstrap, JS
Stakeholders	Admin, System Developer

2.9 Operational and Environmental Requirements

This requirement focuses on how the users operate the system, including interfaces and interoperability with other systems. The requirement established how good and under what condition the system must perform.

2.9.1 Expected Physical Requirements

There are no specific expected physical requirements.

2.9.2 The Requirements for Interfacing with Adjacent System

There is no specific interface with adjacent system requirements.

2.9.3 Release Requirements

System will be released with initial version one

2.10 Legal Requirements

These requirements consider any violation of rules and regulation and their enforcement.

2.10.1 Compliance Requirements

There are no specific compliance requirements.

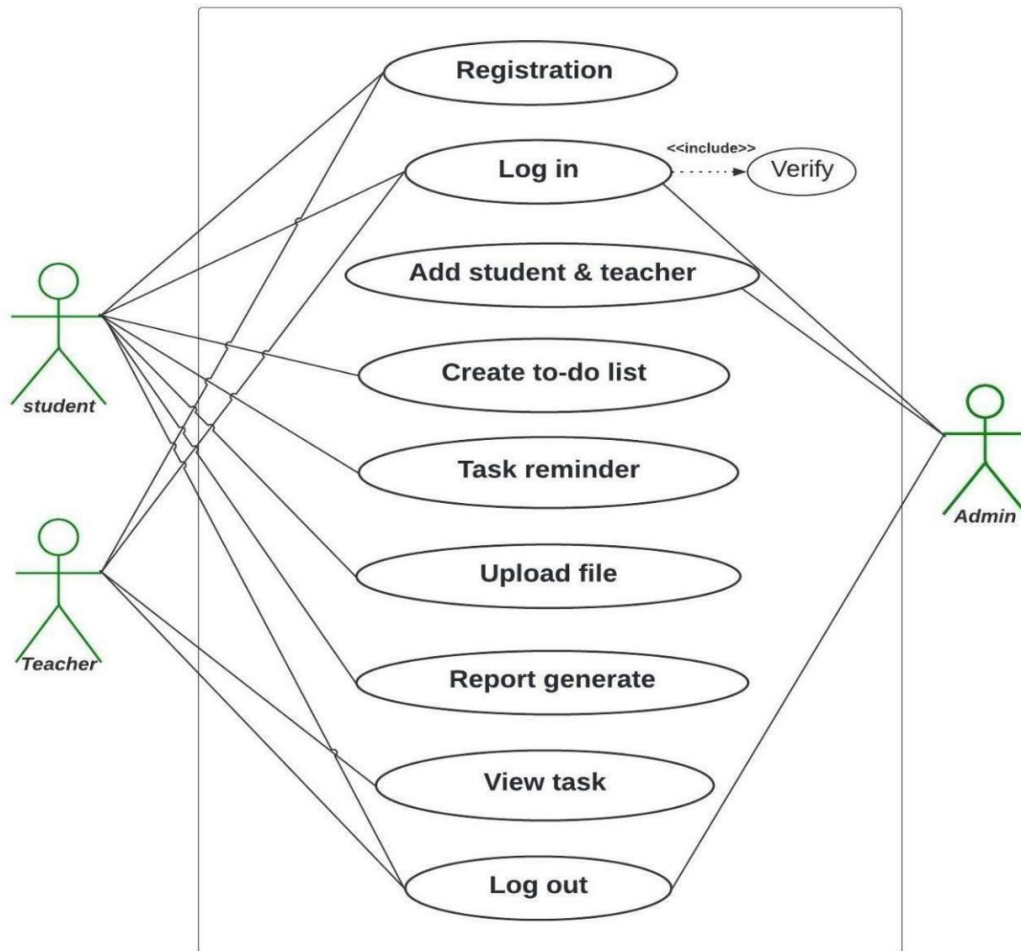
2.10.2 Standard Requirements

There are no specific standard requirements.

CHAPTER-03

SYSTEMANALYSIS

Utilization Diagram



Registration

Utilization Case	signing up for a system		
The objective	Students, Teachers can sign up the system.		
Prerequisites	N/A		
Success is the final criterion.	Students, Teachers can get inside the scheme		
Inadequate Final State	The educational platform is unavailable to teachers and students.		
Primary Actors	Students, Teachers		
Secondary Actors	Admin		
Trigger	Entry to the login page		
Description/main Success Scenario	Step	Action	
	1	Students, Teachers can sign up	
	1a	inputs their email address and password.	
Alternative Flows	Step	Branching Action	
	1a	Username and password are entered by the user.	
	1	Correct address are required for enrollment.	

3.1.2 Log in

Use Case	Log in system	
Goal <a longer statement of the goal in context if needed>	Students, Teachers, Admin can log in the system	
Preconditions <what we expect is already the state of the world>	N/A	
Success End Condition <the state of the world upon successfully complete>	Students, Teachers, Admin can sign in the system	
Failed End Condition <the state of the world if goal abandoned>	Students, Teachers, Admin can't sign in the system	
Primary Actors:	Students, Teachers, Admin	
Secondary Actors	N/A	
Trigger <the action upon the system that starts use case>	Access in sign in page	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Students, Teachers, Admin can log in
	1a	In the sign-in screen's segment catering to existing users, individuals furnish their email identification and password. Alternatively, they can opt for authentication via Google sign-in.
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	The user enters his or her username and password
Quality Requirements	Step	Requirement
	1	When a user sign in, it needs to be correct email id and password for signing in

3.1.3 Add Student & Teacher

Use Case	Add Students & Teacher	
Goal <a longer statement of the goal in context if needed>	Admin can add student & teacher	
Preconditions <what we expect is already the state of the world>	Must be logged in to the system.	
Success End Condition <the state of the world upon successfully complete>	Successfully add student & teacher	
Failed End Condition <the state of the world if goal abandoned>	Fill the form with valid data	
Primary Actors:	Admin	
Secondary Actors	N/A	
Trigger <the action upon the system that starts use case>	Complete profile	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Successfully add student & teacher information.
	2	Can access the system according to role
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	N/A

3.1.4 Create to-do list

Use Case	Create to-do list	
Goal <a longer statement of the goal in context if needed>	Student can create their to-do list according to their project task	
Preconditions <what we expect is already the state of the world>	Must be logged in to the system.	
Success End Condition <the state of the world upon successfully complete>	Student can add task	
Failed End Condition <the state of the world if goal abandoned>	Cannot have access into the dashboard	
Primary Actors:	Students	
Secondary Actors	Teachers	
Trigger <the action upon the system that starts use case>	Successfully add the task	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Student can create their task
	2	Can check to-do list if any task incomplete
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	N/A

3.1.5 Task Reminder

Use Case	Task reminder	
Goal <a longer statement of the goal in context if needed>	Add deadline and reminder date with the task	
Preconditions <what we expect is already the state of the world>	Must be logged in to the system	
Success End Condition <the state of the world upon successfully complete>	Can get reminder before task deadline	
Failed End Condition <the state of the world if goal abandoned>	Cannot get notification	
Primary Actors:	Student	
Secondary Actors	N/A	
Trigger <the action upon the system that starts use case>	Successfully add reminder date	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	After add reminder date then get easily notification
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	Student must add task deadline

3.1.6 Upload File

Use Case	Upload File	
Goal <a longer statement of the goal in context if needed>	Students can upload their project file	
Preconditions <what we expect is already the state of the worlds>	Must be logged in the system.	
Success End Condition <the state of the world upon successfully complete>	Uploaded file Successfully	
Failed End Condition <the state of the world if goal abandoned>	Teachers cannot show the file	
Primary Actors:	Student	
Secondary Actors	N/A	
Trigger <the action upon the system that starts use case>	Submit file	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Successfully upload the task file
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	N/A

3.1.7 Report Generate

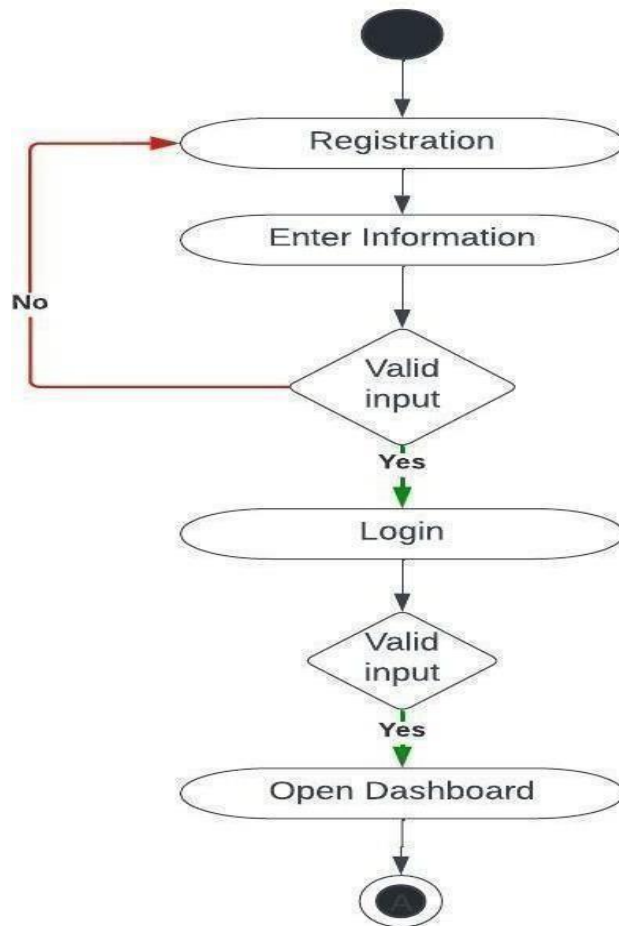
Use Case	Report Generate	
Goal <a longer statement of the goal in context if needed>	Student can generate a report with this system	
Preconditions <what we expect is already the state of the world>	Must be logged in to system	
Success End Condition <the state of the world upon successfully complete>	Report Generate successfully	
Failed End Condition <the state of the world if goal abandoned>	Report hasn't created successfully	
Primary Actors:	Student	
Secondary Actors	N/A	
Trigger <the action upon the system that starts use case>	Making report	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Successfully created report
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	N/A.

3.1.8 View Task

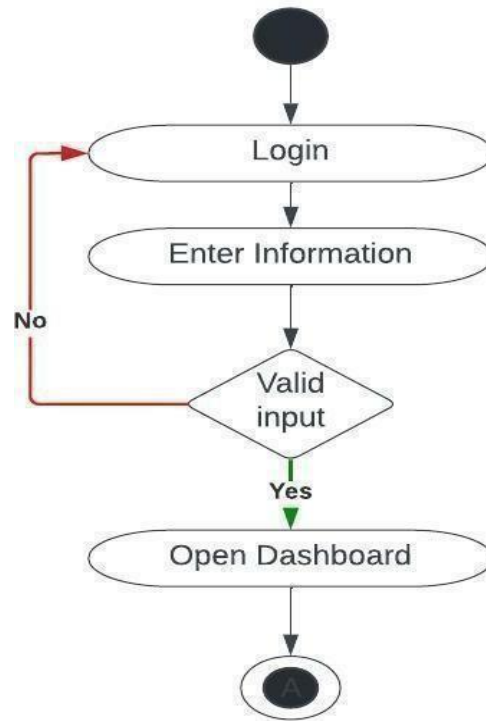
Use Case	View Task	
Goal <a longer statement of the goal in context if needed>	Teacher can show student's work file	
Preconditions <what we expect is already the state of the world>	Must be logged in to system	
Success End Condition <the state of the world upon successfully complete>	View task	
Failed End Condition <the state of the world if goal abandoned>	Can't view the task file	
Primary Actors:	Teacher	
Secondary Actors	Admin	
Trigger <the action upon the system that starts use case>	View task	
Description/main Success Scenario <the steps of the scenario from the trigger to goal delivery and any clean up after>	Step	Action
	1	Teachers can easily view the workflow of students
Alternative Flows <a: condition causing branching> <a1: action or name of sub use case >	Step	Branching Action
	1a	N/A
Quality Requirements	Step	Requirement
	1	Must be data saved in database

Activity Diagrams

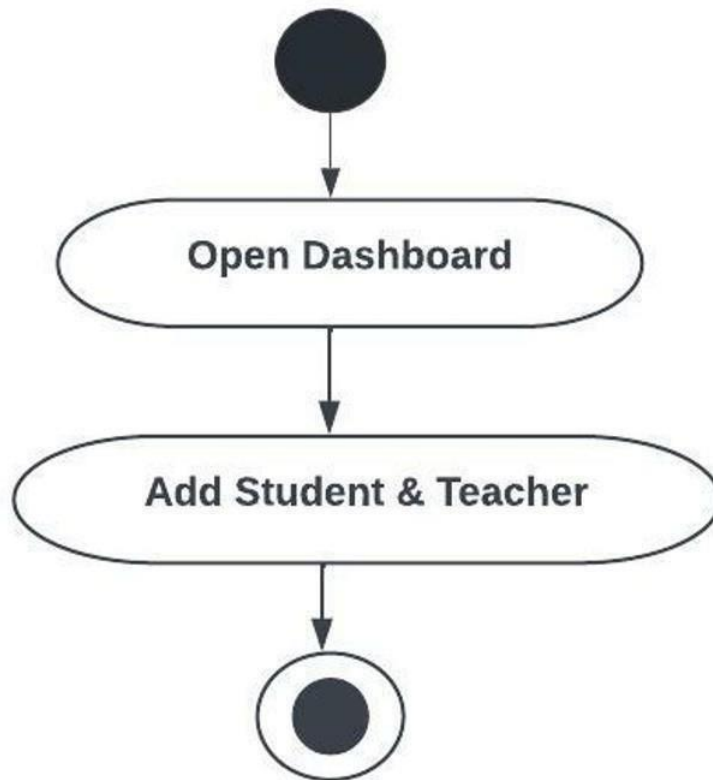
Registration



Login

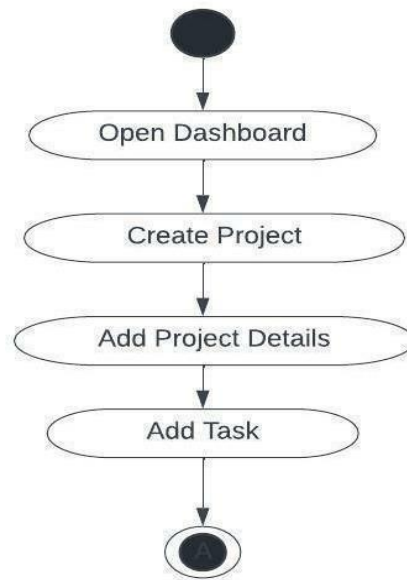


Add Student & Teacher



Add student & teacher

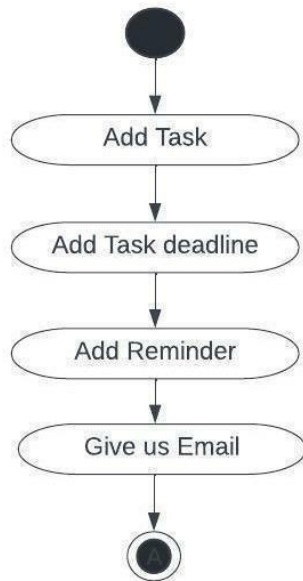
Create to-do list



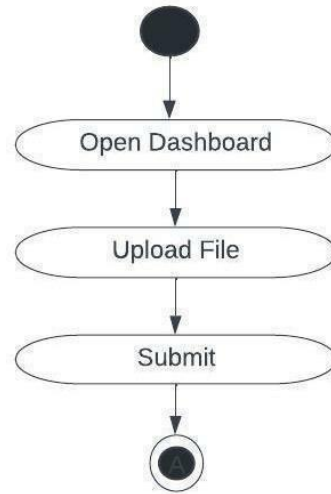
Create to-do list

Task Reminder

Upload File

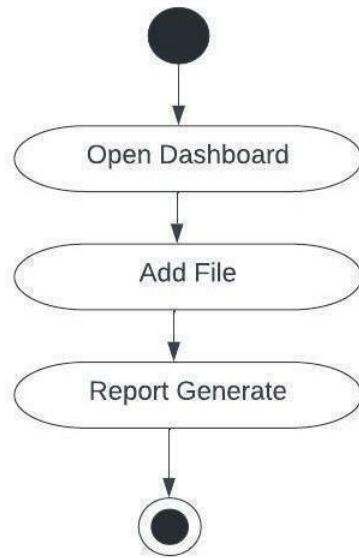


Task Reminder

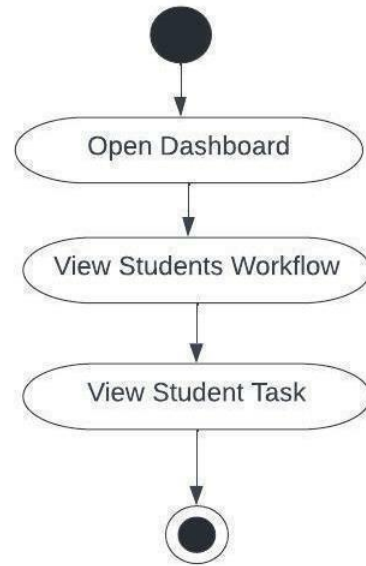


Upload File

Report Generate View Task



Report Generate

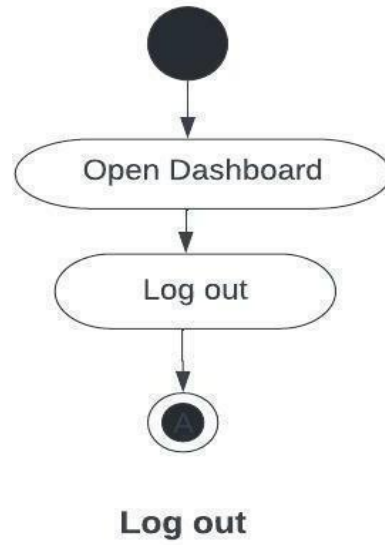


View Task

Figure 3.2.7: Report Generate

Figure 3.2.8: View Task

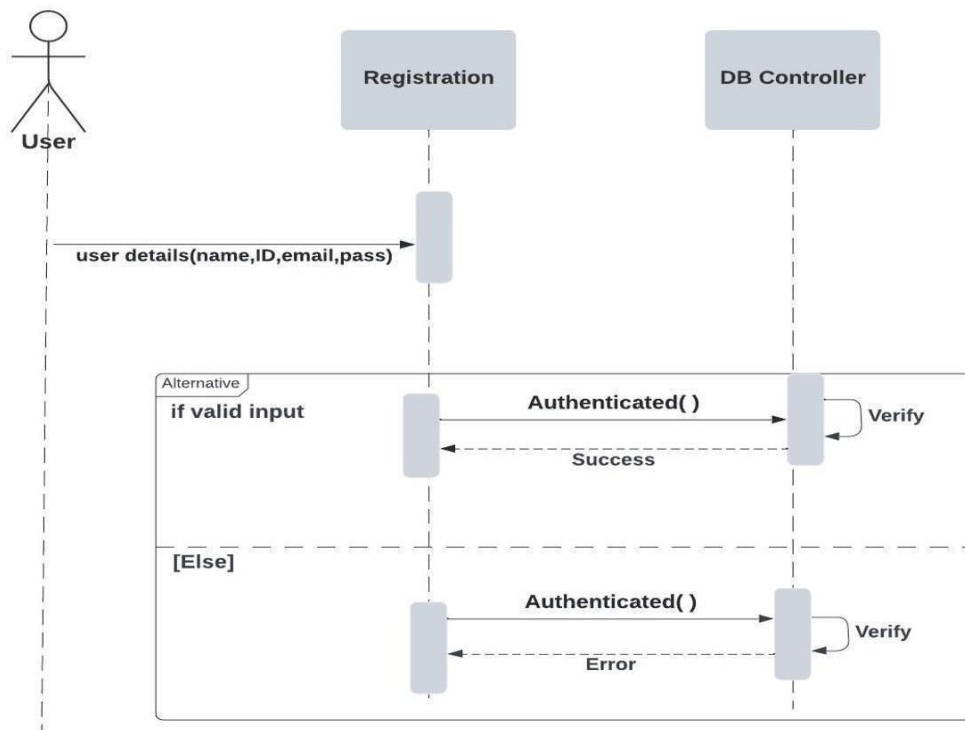
Logout



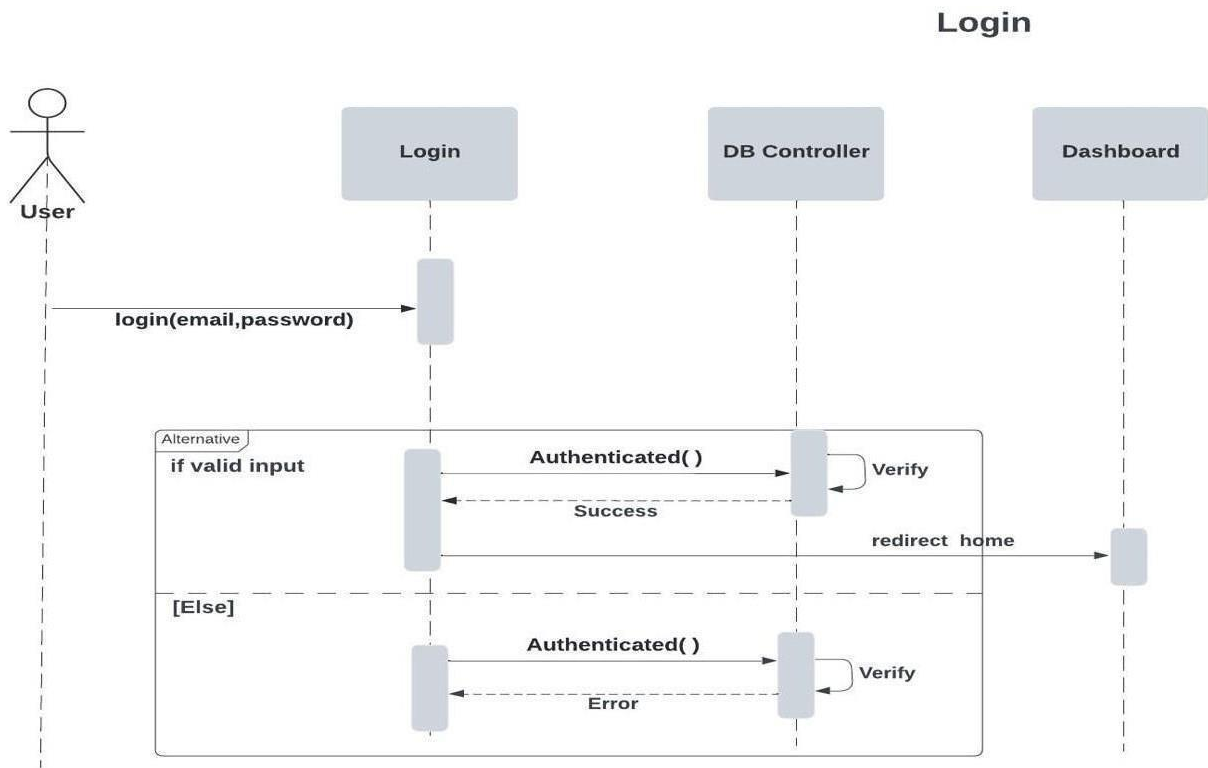
Sequence Diagram

Registration Diagram

Registration

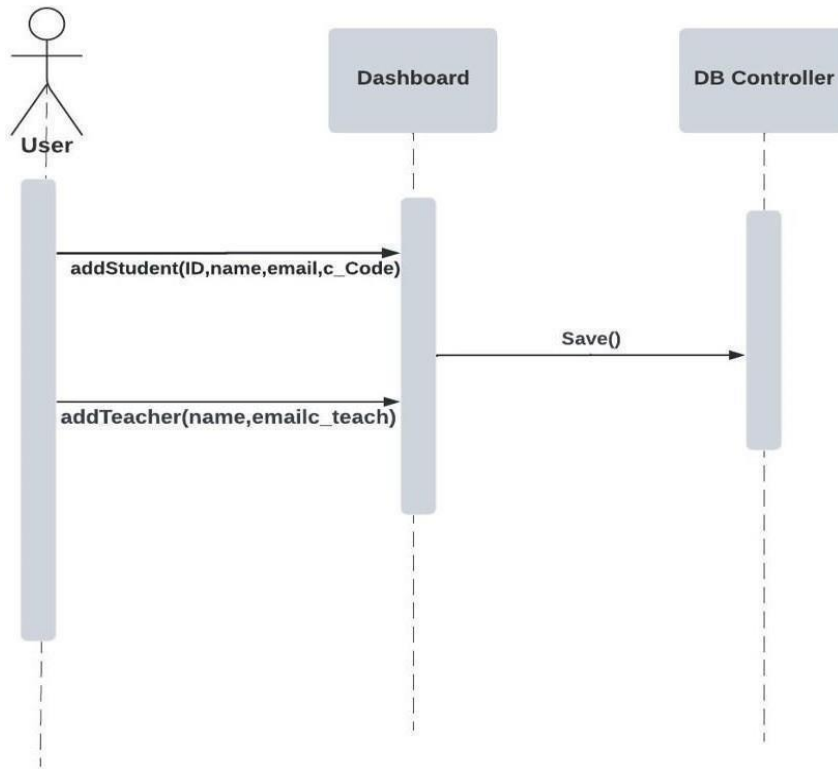


Login Diagram

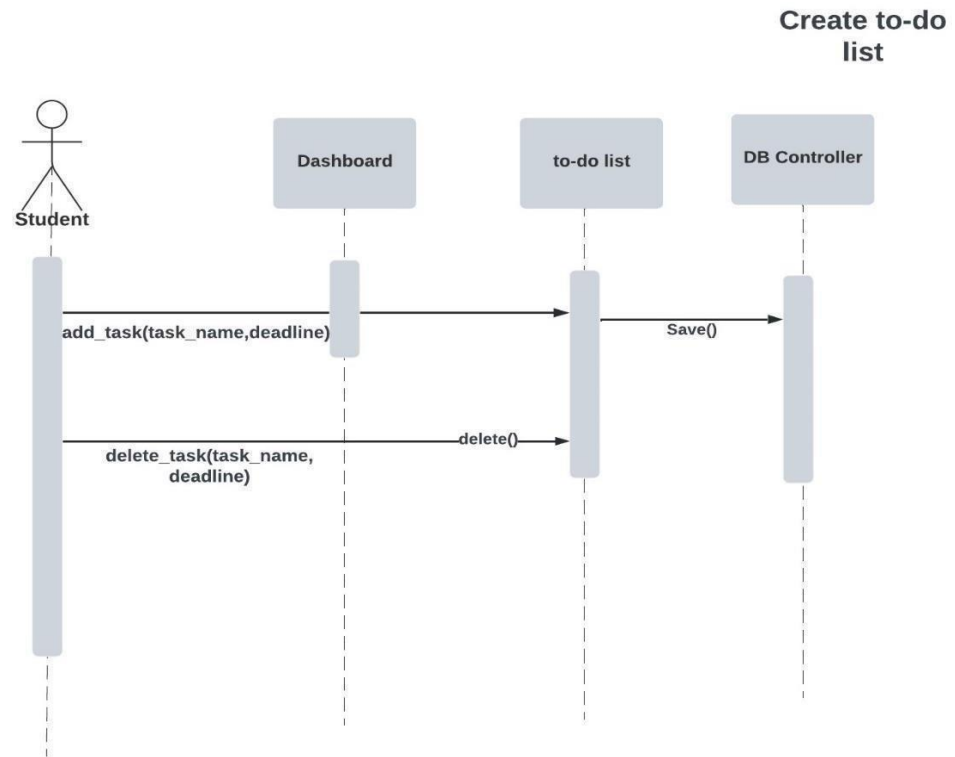


Add Student & Teacher

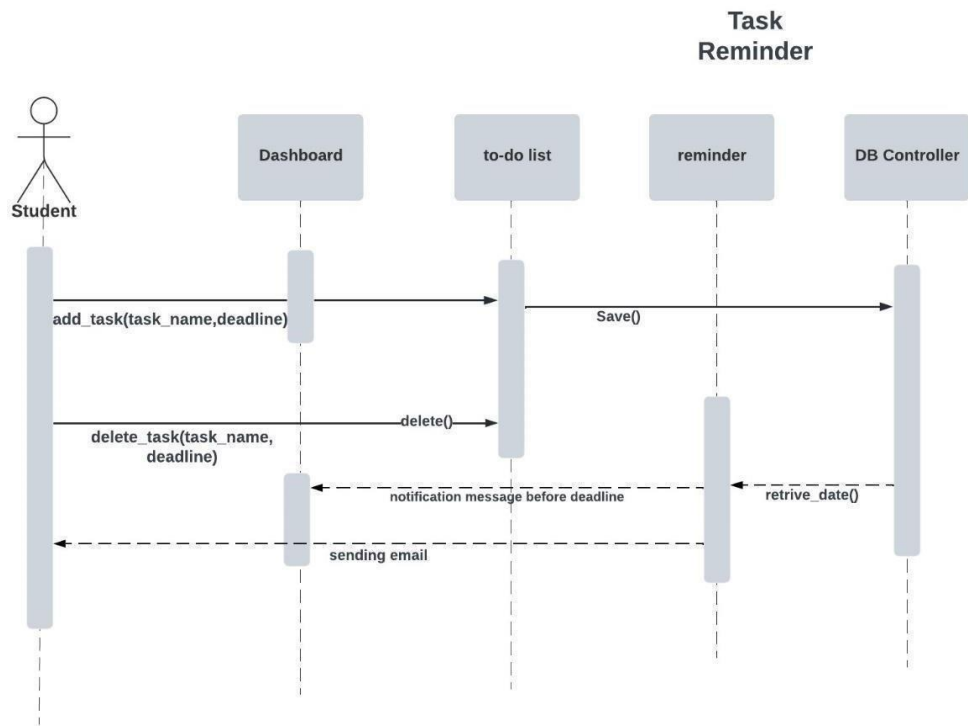
Add Student & Teacher



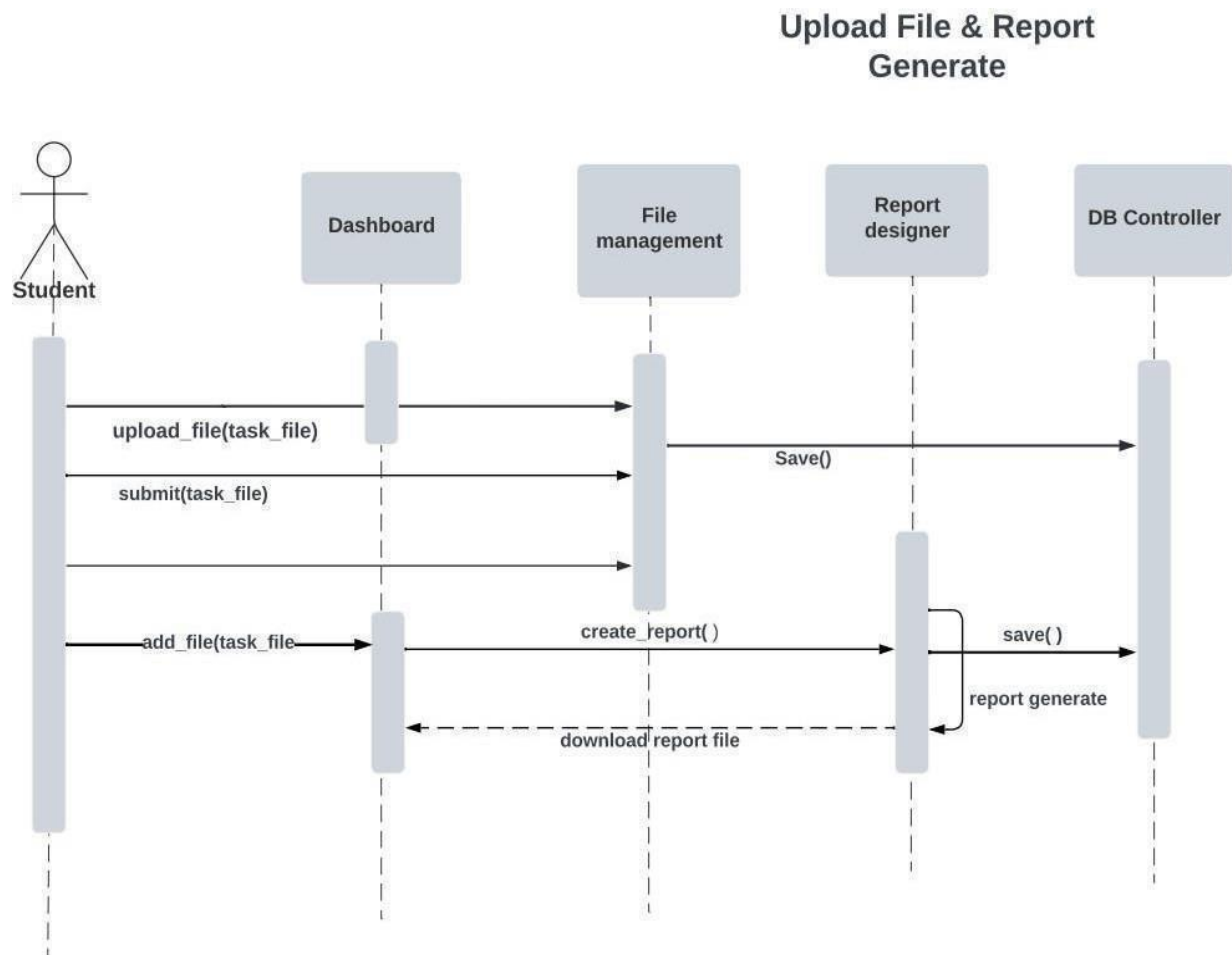
Create to-do list



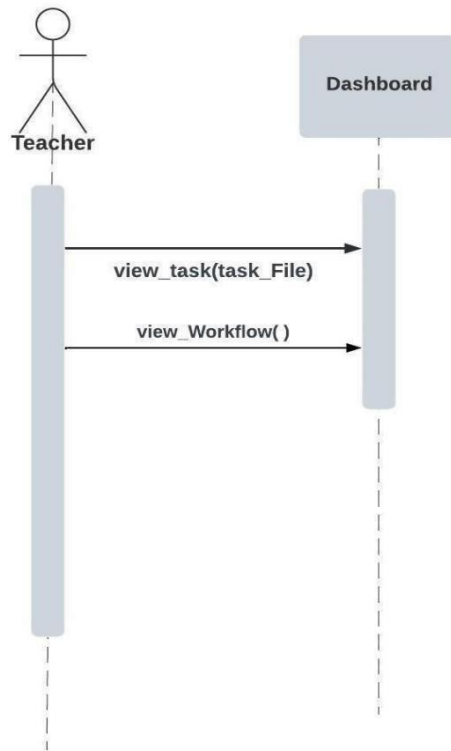
Task Reminder



Upload File Report Generate



View Task

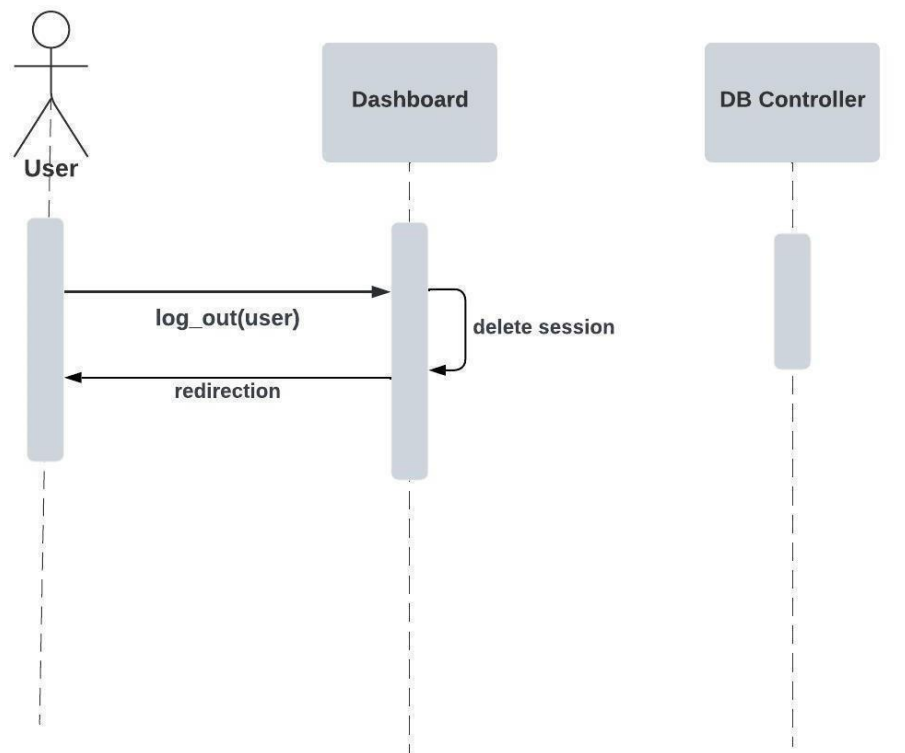


View task



View task

Log-out Diagram

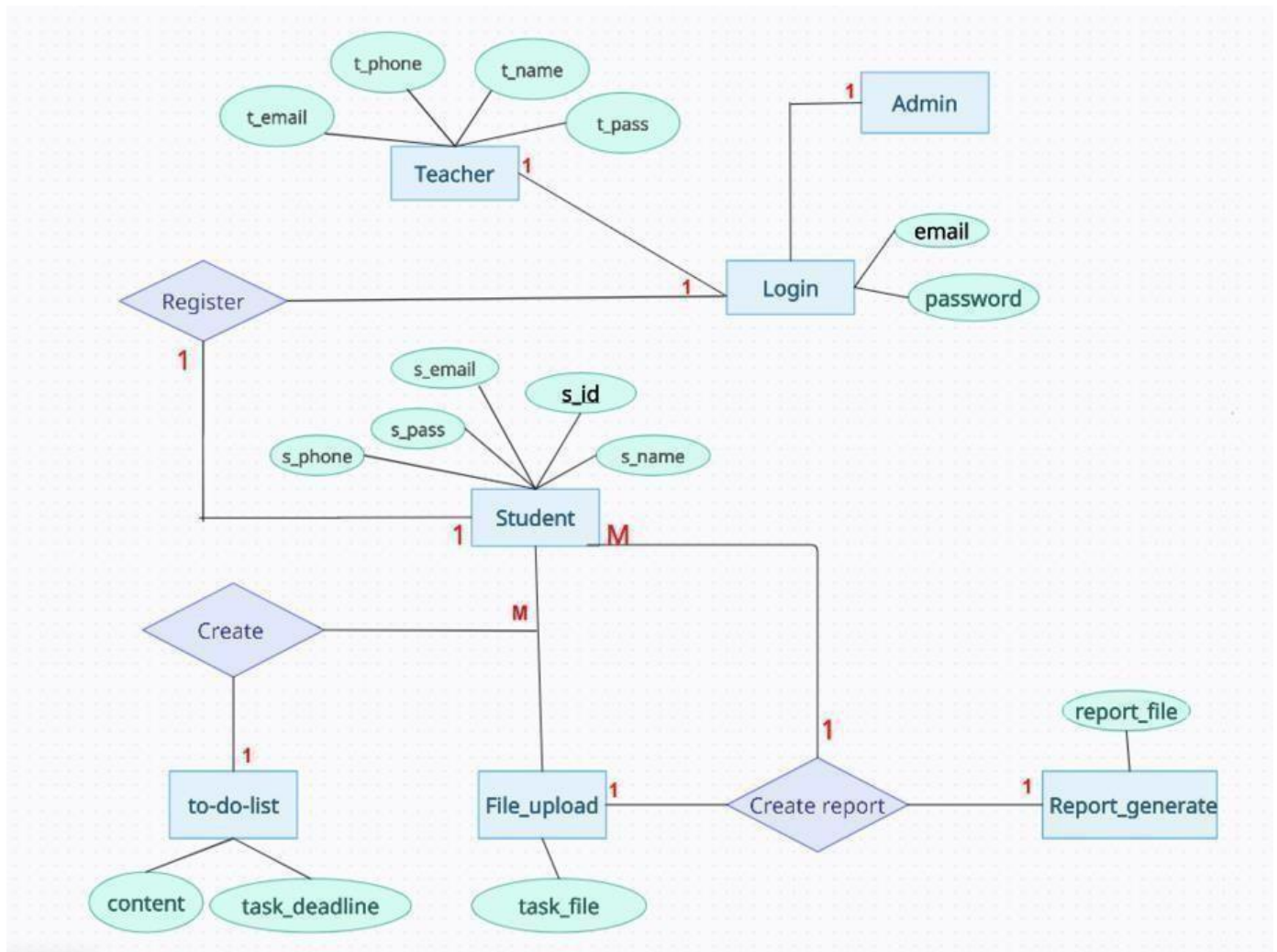


Log-out Diagram

CHAPTER-04

Standard for designing systems

ER Diagrams



Diagrams

CHAPTER-05

System Testing

5.1 Testing Features

5.1.1 Features to be tested

1. Registration
2. Login
3. Add student & teacher
4. Create to-do list

5.1.2 Feature not to be tested

1. View Task

5.2 Testing Strategies

5.2.1 Test Approach

1. The Complete system tested manually
2. System testing based on 'System Project Backlog'
3. This system test on Learners, Parents and Admin's activities

5.2.2 Pass or Fail Criteria

1. Component Pass/Fail Criteria: - The test will pass the test cases by meeting the object design requirements.
2. Integration Pass/Fail Criteria: - The test will pass the test cases by meeting the object architecture requirement or failed if not.

5.2.3 Suspension and Resumption

1. Regression Testing: - The system shall be work properly after each change of the system.
2. Database Change: - This system breaks on database name change.
3. System Design Changes: - The system should work properly after each change in the designing.

Testing Schedule

My project work plan is discussed below-

Itinerary for Assessment

Trial Stage	Momentum
Inspection Schedule	1 Week
Experimental Parameters	2 Week
Individual Test	1 Week
Component during the Test	3 Week
Combination Test	2 Week
Verifying the usage cases	1 Week
Examining Consumer Interface	3 Week
Analyzing Loads	6 Days
Execution Evaluation	1 Week
Release to production	1 Week

5. 3 Test Case (Integration Testing)

No	Module Name
Priority: High	Test Date: 27.06.2023
Title: Log in Verification	Tested By: Sabiqun Nahar
The functionality of login register users is covered in this section.	Tested Date: 28.06.2023
Pre-Condition:	The user has no Precondition

Test Steps:	Input correct information and click Login button.
Expected Result:	Able to log in
Actual Result:	Registration successful and go to the login page
Status (Pass/Fail)	pass

5.3.2 Test Case 2

Test No: 1	Module Name: Log in
Test Priority: High	Test Date: 27.06.2023
Test Title: Login Verification	Tested By: Sabiqun Nahar
Description: Test Login Page	Tested Date: 27.06.2023
Pre-Condition:	User must have a valid email & password
Test Steps:	Input valid Email and password then click Login button.
Test Data:	Email: sabiqun35-1990@gmail.com pass-12345678
Expected Result:	Able to log in
Actual Result:	Log In successful and go to the Dashboard
Status (Pass/Fail)	pass
Postcondition:	Successfully Logged In

CHAPTER-06

User Manual

Registration (Student & Teacher)

localhost:8000/register

StudentProjectbacklog [Login](#) [Register](#)

Register

Name

sabiqun nahar

E-Mail Address

sabiqun35-1990@diu.edu.bd

Password

.....

Confirm Password

.....|

Register

Login & dashboard

3000/login

StudentProjectbacklog

Login Register

Login

E-Mail Address

sabiqun35-1990@diu.edu.bd

Password

.....

☐ Remember Me

Login

Forgot Your Password?



Dashboard

User

Add Studet & Teacher

Add Task

Task Reminder

Upload File

Report Generate

Layouts

Logout

Search

CRM

Home > Dashboard > CRM

ALL USERS INFORMATION

ADD USER

Name	Phone	Email	User Role	Manage
sabiqun nahar		sabiqun35-1990@diu.edu.bd	--	+ -
sabiqun nahar		sabiqun35@gmail.com	--	+ -
rakin		rakin12@gmail.com	--	+ -

Print

CSV

Excel

© 2019 Creative Shaper | All Rights Reserved.

Add Student & Teacher (ADMIN)

The screenshot shows the 'ADD USER' form in the Orbiter CRM. The left sidebar contains the following menu items: Dashboard, User, Add Student & Teacher, Add Task, Task Reminder, Upload File, Report Generate, Layouts, and Logout. The main content area has a breadcrumb trail 'Home > Dashboard > CRM' and a title 'CRM'. The form fields are: Name (sabiqun nahar), Phone (01682934502), Email Address (sabiqunnahar.124@gmail.com), Password (12345678), Confirm-Password (12345678), and User Role (Teacher). A 'REGISTRATION' button is at the bottom right. A copyright notice '© 2019 Creative Shaper | All Rights Reserved.' is at the bottom.

Orbiter

Dashboard

User

Add Student & Teacher

Add Task

Task Reminder

Upload File

Report Generate

Layouts

Logout

CRM

Home > Dashboard > CRM

ADD USER

ALL USER

Name: sabiqun nahar

Phone: 01682934502

Email Address: sabiqunnahar.124@gmail.com

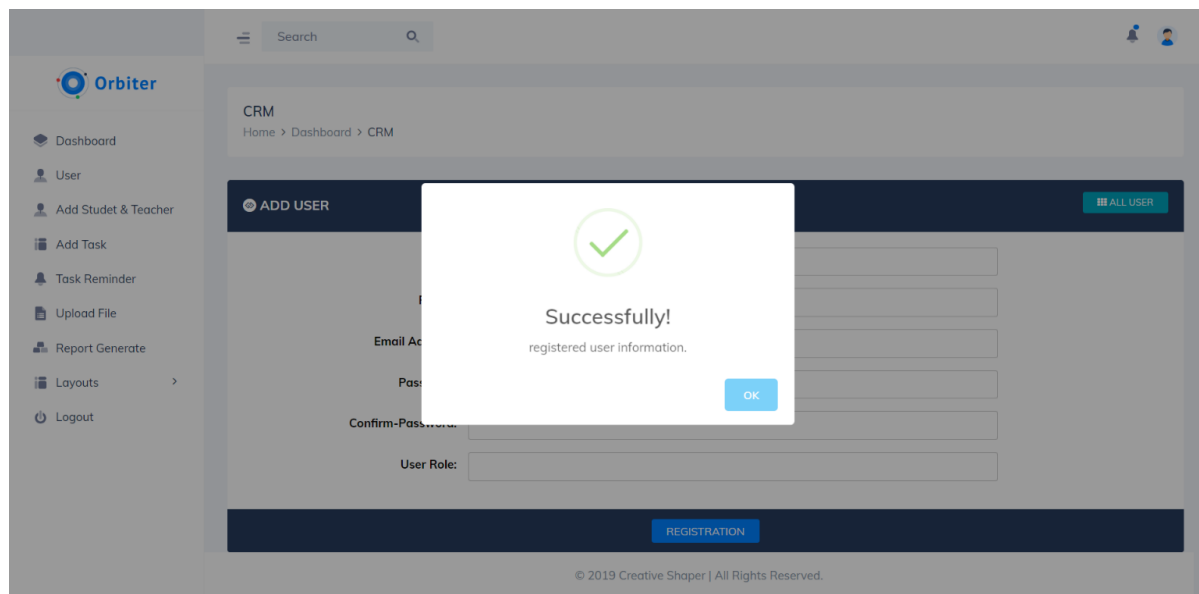
Password: 12345678

Confirm-Password: 12345678

User Role: Teacher

REGISTRATION

© 2019 Creative Shaper | All Rights Reserved.



All Student & Teacher Information

Orbiter

Dashboard

User

Add Studet & Teacher

Add Task

Task Reminder

Upload File

Report Generate

Layouts

Logout

CRM

Home > Dashboard > CRM

ALL USERS INFORMATION

ADD USER

Name	Phone	Email	User Role	Manage
eity	01682916780	eity	student	+ edit delete
Emon	01672019800	emon@gmail.com	student	+ edit delete
nishu	01682934567	nish67@gmail.com	student	+ edit delete
nishu	01682934567	nishu12@gmail.com	student	+ edit delete
minu	01723456789	minu23@gmail.com	student	+ edit delete
mishu	01752345678	mishu@gmail.com	student	+ edit delete
nahar	01682917206	sabiqun35@gmail.com	student	+ edit delete

Print

CSV

Excel

© 2019 Creative Shaper | All Rights Reserved.

Create to-do list

Orbiter

Dashboard

User

Add Studet & Teacher

Add Task

Task Reminder

Upload File

Report Generate

Layouts

Logout

CRM

Home > Dashboard > CRM

TODOLIST

Add your new todo

+

assignment

assignment

exam

presentation

Project submission

You have 5 pending tasks

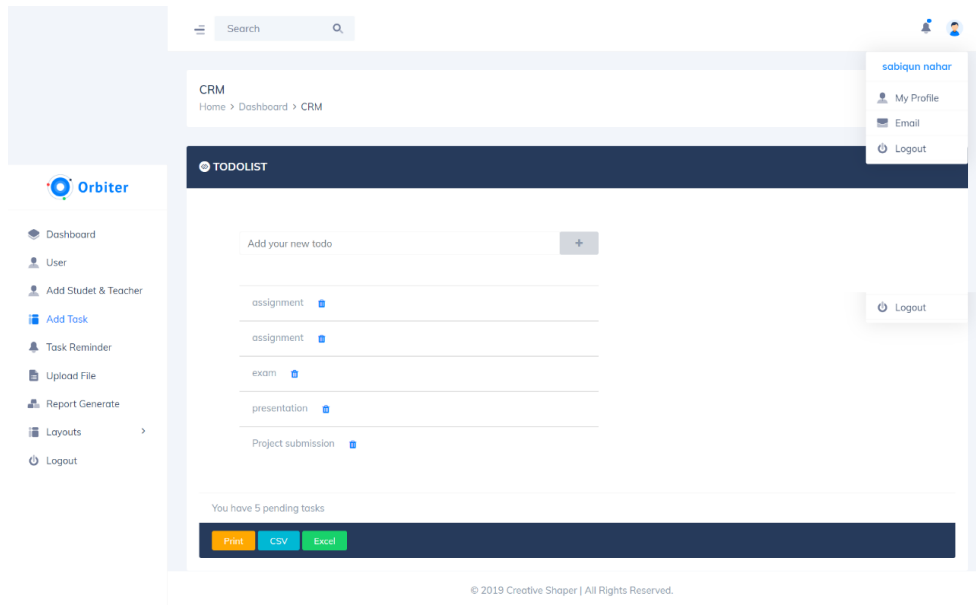
Print

CSV

Excel

© 2019 Creative Shaper | All Rights Reserved.

Log out from system



Thank You