

Tribhuvan University

Faculty of humanities and social sciences

Lumbini ICT campus

A fourth-semester project Report
On
"Document Hub"

Submitted to: Department of information technology Lumbini ICT campus

In partial fulfillment of the requirements for the bachelor's in computer application

Submitted by:

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Under the supervision of Nischal khatiwada



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Supervisor's recommendation

We hereby recommend that this project prepared under my supervision by Bibek Bhusal entitled "Document Hub" in partial fulfillment of the requirements for the degree of bachelor of computer application is recommended for the final evaluation.

.....

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LETTER OF APPROVAL

This is to certify that this project by Bibek Bhusal entitled "Document Hub" in partial fulfillment of the requirements for the degree of bachelor in computer application has been evaluated. In our opinion, it is satisfactory in the scope and quality as a project for the required degree.

•••••	
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Bibek Bhusal

Registration no:6-2-1194-37-2021

Abstract

The project, named Document Hub, aims to streamline the management of student assignments and practical files through an intuitive online platform. This system allows teachers to create student accounts and provides students with a dedicated portal for uploading their assignment, files, report, images and document. From the teacher's dashboard, monitoring and verifying student submissions becomes straightforward. This mechanism enhances efficiency by automating the submission process and ensuring accountability in assignment completion. Document Hub prioritizes user-friendly interfaces, ensuring ease of use for both teachers and students. The system's design focuses on improving educational service quality and operational efficiency while maintaining cost-effectiveness throughout development and implementation phases.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

In today's educational landscape, efficient management of assignments and practical files is crucial for both teachers and students. "Document Hub" is a pioneering project designed to revolutionize this process by providing a comprehensive online platform. This platform allows teachers to effortlessly create student accounts and offers students a user-friendly portal for uploading their assignments. By centralizing submission management through intuitive dashboards, "Document Hub" enhances accountability and streamlines the work flow for educators. This project aims to not only simplify administrative tasks but also to improve overall efficiency and effectiveness in educational settings. Through its innovative approach, "Document Hub" is set to redefine how assignments are managed, ensuring seamless interaction and reliable tracking of student submissions.

1.2 Problem statement

Managing student assignments and practical files in schools can be difficult and inefficient. Teachers often struggle with tracking submissions and ensuring all assignments are received on time. Students may find it challenging to submit their work in a structured and organized manner. Existing methods lack a centralized system for easy tracking and verification of submissions, leading to confusion and delays.

To address these issues, "Document Hub" aims to create a straightforward online platform. This platform will allow teachers to effortlessly create student accounts and provide students with a user-friendly portal for uploading assignments. By automating submission processes and improving accountability, "Document Hub" seeks to simplify assignment management, making it easier for teachers to track submissions and for students to submit their work on time. This project aims to enhance efficiency in educational settings and improve the overall experience of managing assignments.

1.3 Objectives

- Develop an online platform that simplifies the submission of assignments and practical files for students, ensuring ease of use and efficiency.
- Enable teachers to monitor and verify student submissions seamlessly through a centralized dashboard, reducing errors and delays in the submission process.

- Create a user-friendly interface that promotes accessibility and usability for both teachers
 and students, enhancing overall satisfaction with the assignment submission process. To
 design a system able to accommodate a huge number of orders at a time.
- Automate submission tracking and notification systems to streamline administrative
 tasks, allowing teachers to focus more on educational delivery rather than
 administrative logistics. To increase the speed of services, sales volume, and being able
 to get suggestions from the customers.

1.4 Scope and limitation

Scopes include:

- Assignment Management: The platform will facilitate the efficient management of assignments and practical files, allowing students to upload their work and teachers to monitor submissions.
- User Roles: It will support different user roles such as teachers and students, each with specific permissions and capabilities tailored to their needs.
- Centralized Dashboard: A centralized dashboard will enable teachers to view and manage submissions, providing transparency and accountability in the submission process.
- Notification System: Implement a notification system to alert users about assignment deadlines, submissions, and other relevant updates.
- User Interface: Design a user-friendly interface that enhances usability and accessibility for both teachers and students, promoting an intuitive experience.
- Integration: Ensure compatibility and integration with existing educational systems to facilitate seamless adoption and operation within educational institutions.

1.5 Report organization

Chapter 1- Topic "Introduction" contains the introduction to the project. It explains the project's objectives, scope, and limitations, as well as provides a brief description and summary. It also explains why we're working on this project.

Chapter 2- Topic "Background Study and Literature Review" present a critical evaluation of the context of our system-critical analysis of existing literature. It includes a description of our perspective of the previous system, as well as what our project wants to accomplish, as well as a comparison of the traditional and our planned system, the Online Food Ordering System.

Chapter 3-Topic "System Analysis and Design" includes a data flow diagram, modules, architecture as well as contains the requirement of the system its hardware requirement, and the software required to run our system. It also relates to shaping organizations, improving performance, and achieving objectives for profitability and growth.

Chapter 4-Topic "Implementation and Testing" includes the process of testing implementations of technical specifications. It consists of all the ways how the functions are implemented and what functions are used to implement them.

Chapter 5-Topic "Conclusion and Future Recommendations" includes how well have we achieved our original aim and objectives, what were the limitations and scopes of our system, what should we do differently next time, consequences for research funding and practice.

CHAPTER 2: BACKGROUND STUDY AND LITERATURE REVIEW

2.1 Background study

The evolution of educational technology (EdTech) has significantly transformed teaching and learning processes across the globe. EdTech encompasses a wide array of tools, including learning management systems (LMS), digital classrooms, and administrative platforms, all designed to enhance educational experiences and streamline operations. As education moves towards a more digital framework, managing assignments and practical files efficiently has become paramount.

2.2 Literature Review

Current assignment management systems, such as Google Classroom, Canvas, and Blackboard, offer digital solutions for managing educational tasks. These platforms provide functionalities like assignment creation, submission, grading, and feedback. While these systems have gained popularity, they come with their own set of challenges. A review of these systems highlights the following points:

Some of the online food ordering systems of Nepal are:

Google Classroom: Known for its simplicity and integration with Google Workspace, it is user-friendly but lacks advanced customization and comprehensive analytics.

- Google Classroom: Known for its simplicity and integration with Google Workspace,
 it is user-friendly but lacks advanced customization and comprehensive analytics.
- Canvas: Offers robust features and flexibility but can be overwhelming for new users and requires substantial training.
- Blackboard: Highly comprehensive with a wide range of tools but often criticized for its complexity and high cost.

2.3 Previous Systems

Traditional assignment management methods primarily involved paper-based submissions, physical storage, and manual grading. These .5 Comparison of Systems

- Google Classroom: Known for its simplicity and integration with Google Workspace,
 it is user-friendly but lacks advanced customization and comprehensive analytics.
- Efficiency: Time-consuming processes for both submission and grading.
- Accessibility: Limited to physical presence, restricting anytime-anywhere access.
- Accountability: Challenges in tracking submissions and maintaining records.
- Sustainability: High reliance on paper, contributing to environmental concerns.

2.4 Traditional Systems vs. "Document Hub"

- Sustainability: High reliance on paper, contributing to environmental concerns.
- Efficiency: "Document Hub" automates many processes, reducing time and effort compared to traditional methods.
- Accessibility: Cloud-based infrastructure allows access from anywhere, unlike physical paper submissions.
- Accessibility: Cloud-based infrastructure allows access from anywhere, unlike physical paper submissions.

CHAPTER 3: SYSTEM ANALYSIS AND DESIGN

For the development of any system, we have to follow the models. As there are many model such as incremental model, waterfall model, spiral model. But among them we have chosen waterfall model because waterfall model is suitable for to develop our system.

I.e. waterfall model is a popular model of the software development life cycle to make a successful project. The waterfall model describes a development method that is linear or sequential. The whole process of system development is divided into separate phases like requirement analysis, design, implementation and unit testing, integration and system testing and maintenance. Once the one phase is completed the development process to the next phase starts and this is no turning back. Moreover, a waterfall model is suggested for the project because it has clear objectives and solutions. We take the waterfall model for the online food ordering system project mainly because the waterfall model is simple, easy to use, and manage, waterfall model works well for smaller the and project will be completed in a short period of time with a low budget where requirements are very well understood and the main advantage are processed and results are well documented.

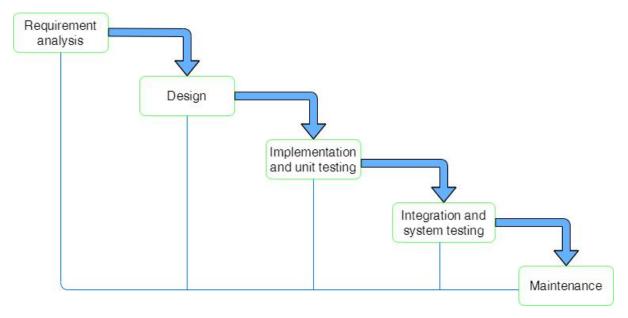


Figure 1: waterfall model

System analysis is the process of collecting facts, identifying the problems, and decomposition of a system into its components. System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is the problem-solving technique that

improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

1.1 Requirement Elicitation

Requirements were gathered by conducting interview which include open-ended interview. We conducted an interview on the involved in the Document Hub to have a better understanding on how the current system works. We identity that system should include:

- Registration: The Admin can resister the teacher and student account in the system.
- Users login: The system should allow the users to log in to the system if they provide actual data that they have used in the signup state.
- Admin login: The system should allow the admin to enter to dashboard if they provide
 Actual data that the admin need to have.
- Adding document to the portal: The system should allow the user to add ducument to the portal if they are logged in.
- Logout after the files are checked.

After identifying all the requirement and problem encountered in the current system, we analyzed the system needs by creating DFD. We made some necessary recommendation on what should done to improve to current state of enrollment.

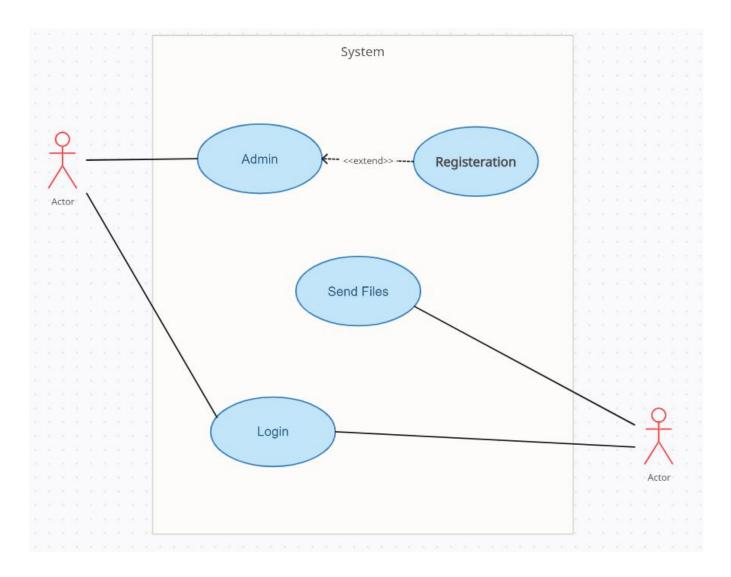
1.1.1 Requirement Analysis

Requirement analysis also called requirements engineering, allows software engineers to define user needs early in the development process. It helps them deliver a system that meets

customer time, budget, and quality expectations. In this article, we review the requirements analysis process and explain various analysis techniques. The goal of this phase is to decompose analyze and detail the requirement across the system design. There may have redundancy and anomalies so to remove such anomalies requirement analysis is done with the review of the supervisor. Furthermore, we add use case diagram for requirement analysis.

The following section presents the complete set of functional and non-functional requirements identified for the online food ordering system. Functional requirements are stated first, in order of importance to the whole system, user, admin, and teacher. Non-functional requirements are focused on the system's operation rather than its behaviour. It relates to security, stability, reliability, quality performance, and so on.

Figure 2: Use case diagram



I. Functional Requirements:

Functional requirements define the capabilities and functions that a system must be able to perform successfully. Functional requirements are those requirements in the system that are used to illustrate the internal working nature of the system, and explanation of each subsystem. It consists of what task the system should perform, technical information, various processes, and other functionality. The specified functional requirements for the Document Hub are presented in this section. Use case diagrams are used to describe the functional requirements as they represent the system's functions at the most basic level. The functional requirements identified are:

ADMIN MODULE	USER MODULE
• Login/Signup	• Login/Signup
Manage user	User Protal
Register User	Choose file
Add User	Upload File
Update information	Submit File
Remove User	Check File
• logout	View File
	Delete File
	• logout

Table 1: Functional requirement

I. Non-functional requirement

A non-functional requirement is a requirement that describes the system's operation capabilities that enhance its functionality. Non-functional requirement deals with issues like portability, maintainability, performance, security, and many more.

- Security: The system should provide a basic level of security and integrity for the data held by the system, with only authorized staff having access to the system's secured page and only users with valid passwords and username being able to log in to view the user's page.
- Performance: Under a given workload, performance refers to how quickly a software system or a specific portion of it responds to specific user actions. Given the current number of users, this measure often explains how long a user must wait before the desired operation (the page renders, a transaction is performed, etc.) occurs. But this isn't always the case. Performance requirements may refer to procedures that are not visible to users, such as backup. But, for now, let's concentrate on customer satisfaction.
- Ease of use: Considered the level of knowledge possessed by the users of this system, a simple but quality user interface should be developed to make it easy to understand and use by non-technical users.

1.1.2 Feasibility study:

A feasibility study is the initial design stage of any project, which brings together the elements of knowledge that indicate if a project is possible or not. A feasibility study was conducted for the project with the goal to see if a system idea is feasible. So far, during the development of the project Document Hub, we have four major categories of the feasibility study.

Operational feasibility:

As our project plan satisfies the requirement identified in the requirement analysis phase of system development. Our application is operationally feasible because it is simple and needs only a general idea to operate it is not necessary to have a well-trained expert. Our system has a user-friendly interface that makes it simple for users to utilize.

• Economic feasibility:

As our system utilizes free software such as HTML, CSS, JS, and MYSQL, which will not generate any costs also the application does not spend much more money so our system is economically feasible. But because our project is a college project so we do not need to check whether our project is economically feasible or not.

• Schedule feasibility:

Schedule feasibility is the most important for the success of a project after all it analyzed time it will take to complete a project which has a great impact on the organization as the purpose of the project may fail if it can't be completed on time. As our project is short, the requirement for the system is already fixed and it cannot be changed, we manage a perfect time period for our project by analyzing and discussing with experts, so we summarize that our system is schedule feasible.

• Technical feasibility:

For to develop the system we include the correct required resources and technologies such as HTML, CSS, PHP, and MySQL as the server are the main technologies and tools used in our system which are freely available, and the system developer has lots of technical experience. We will conduct systematic information-sharing training with an associated user guide.so, our project is technically feasible.

1.1.3 E-R Diagram

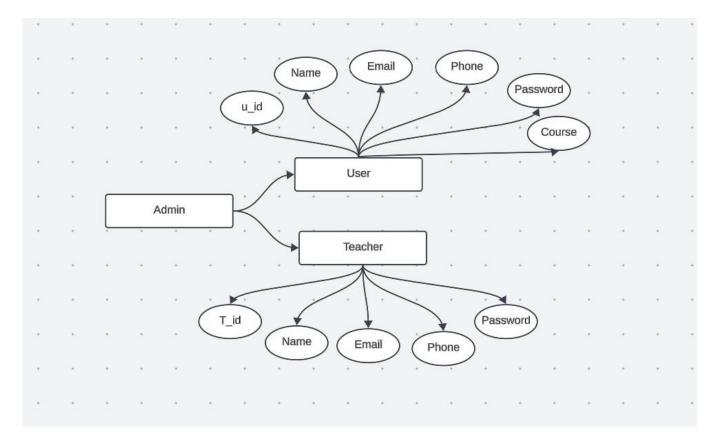


Figure 3: ER diagram

1.1.4 DFD(data flow diagram)

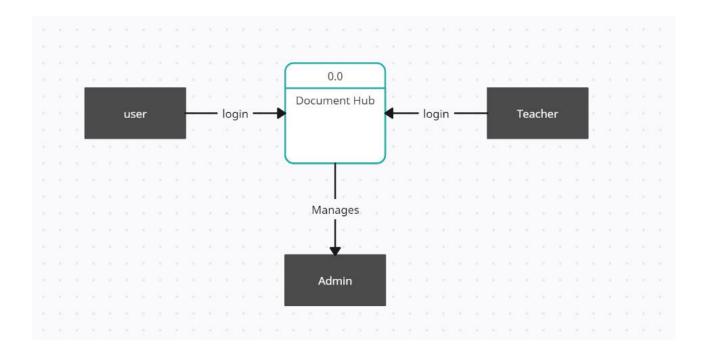


Figure 4: 0 level DFD

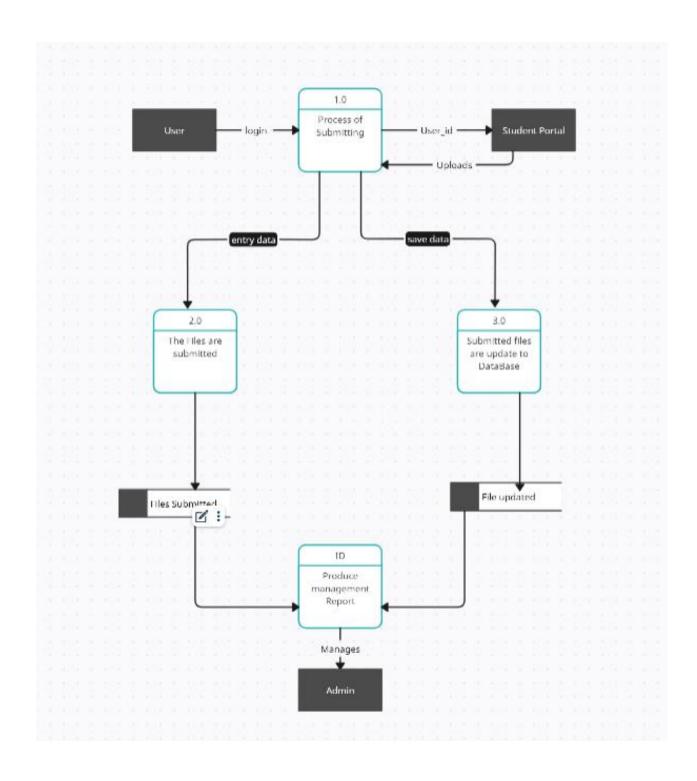


Figure 5: level 1 DFD

1.2 System Design

System design is the process of defining elements of a system like modules, architecture, component, and their interfaces and data for a system based on the specified requirements. System design is the process of defining, developing, and designing systems that satisfy the specific needs and requirements of an organization.

3.2.2 Database schema design:

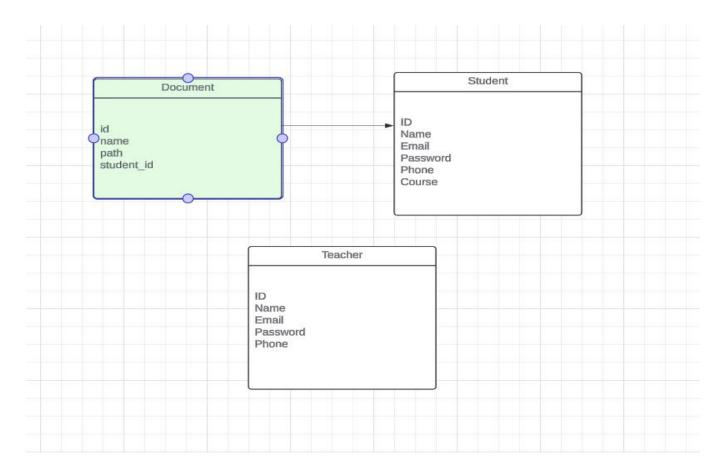


Figure 6: Database schema

CHAPTER 4: IMPLEMENTATION AND TESTING

4.1 Implementation

4.1.1 Tools Used

We use different tools and techniques for the development of the system. We use HTML, CSS, and JAVASCRIPT for the frontend and PHP for the backend development. We use SQL for managing databases.

Html, CSS, and bootstrap:

HTML is mostly used to construct the user interface and offer support for Bootstrap elements by supplying Bootstrap containers. CSS was utilized to give more detail to the website, while Bootstrap was used to create the portal overall by extending tags from an existing library. Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first frontend web development. It contains HTML, CSS, and JS-based design templates for forms, buttons, navigation, etc.

JavaScript: JS is used to add events and triggers to the website. The website also uses JS to acquire the system time for date and time reasons.

PHP with MySQL: PHP is a server-side scripting language that allows you to connect to a database, as CRUD actions such as editing, deleting, and searching news is required, PHP is utilized in association with the MySQL database, which stores database tables.

XAMPP Server: XAMPP is a popular cross-platform web server that allows programmers to design and test their code on a local webserver. It is used in project development to host the portal locally and centralize the database.

Visual studio code: visual studio code is a source code editor its features include support for debugging, code refactoring, etc. Users can change the theme keyboard shortcuts, and install extensions that add additional functionality.

4.2 Unit testing

Test	Test case	Test case	Expected values	Actual	Result
code	type	description		values	
Test	User	Registration	If the user name has	user is getting	User is
1	registration	details of the	a unique identity	authentication	successfully
		user will be	then the user gets		registered.
		present here	registered		
			successfully.		
Test	User	Without	The user will not	An alert will	An alert will
2	registration	entering any	able to register.	be displayed	be displayed
	gets failure	one of the fields			like entering
		if the user click			all the fields.
		on signup then			
		an alert			
		message will			
		displayed			
Test	User	when a user	The user will not	An alert will	An alert will
3	registration	tries to register	able to register.	be displayed	be displayed
	gets failure	with the same			like "Email
		email then user			is already
		will not get			registered
		registered.			try another".
Test	User login	User details of	User details are to	User get login	The user
4		user are	be correct.		login
		authenticated			successful
					and is
					authorized
					to use the
					system.

Test	User login	User details of	Login details are to	User login fail	The user is
5	failures	user are not	be incorrect		failed to
		authenticated			login
Test	Login	Trying to login	An alert is to be	An alert will	The user
6	without	without	displayed	be display	login is
	user details	providing user		like "please	failed
		details		fill out this	
				field".	

Table 2: Test Case for User Registration and User Login

Test	Test case	Test case	Expected values	Actual values	Results
code	type	description			
Test	Admin	Registration	If the admin name	Authentication	Admin is
7	registration	detail of the	has a unique		successfully
		admin will be	identity then the		registered.
		present here	admin get		
			registered		
			successfully.		
Test	Admin	Without	Admin will not	An alert will	An alert will
8	registration	entering anyone	able to register	be displayed	be displayed
	gets failure	of the field if the			like enter all
		admin click on			the fields.
		submit then			
		message will			
		displayed			
Test	Admin	When a user	Admin will not	An alert will	An alert will
9	registration	tries to register	able to register	be displayed	be displayed
	gets failure	with the same			
		email, then user			

		will not get registered			
Test	Admin	Details of user	User details are to	User get login	The user
10	login	are	be correct		login
		authenticated			successful
					and is
					authorized
					to use the
					system
	Admin	Admin details			
Test	login failed	are not	Login details are to	Admin login	The user
11		authenticated	be incorrect	failed	login failed
					and is not
					able to use
					the system
Test	Login into	Trying to login	An alert is to be	An alert will	The admin
12	without	without	displayed	be display	login is
	admin	providing admin			failed
	details	details			

Table 3: Test Case for Admin Registration and Login

Test	Test case	Test case	Expected values	Actual	Result
code	type	description		values	

Test	To upload	The user tries to	The	upload	is	User uploads	File uploaded
13	files	view to upload	Succe	ssful		the data	successfully
		files in the portal					

Table 4: Test Case for File upload

1.3 System testing

Test code Test case		Expected	Actual Result	Remarks
		Result		
1	User create	The user can be created by admin and provided with email and password		No error
2	User login	User should be	Logged in and	No error
		logged in and	redirected to	
		redirected to	home page	
		Portal		
4	Upload Files	Files is uploaded	File uploaded	No error
5	Teacher create	The teacher can be created by admin and provided with email and password	Teacher created	No error
6	Teacher login	User should be logged in and redirected to	System worked as expected	No error
		home page		

Table 11: Test Case For System Testing

CHAPTER 5: CONCLUSION AND FUTURE RECOMMENDATION

5.1 lesson learned/outcome

At the end of the project, we are able to design software that can successfully handle the Documentation. With the help of this system, students and teacher can manage the educational activities. It can also ensure that people do not waste their precious time and use their time productively on other works. Expected to be very easy to use and least maintenance. There are no more limitations as such for this system, however, one needs to take care of the smaller parameters like server breakdown while the system is implemented.

5.2 Conclusion

The goal of this project was to create a web application for educational institutions called "Document Hub." This platform is designed to streamline the management of assignments and practical files, allowing students to upload their work and teachers to manage submissions efficiently. Using a systematic methodology and the waterfall model, we successfully developed a functional prototype of this system.

"Document Hub" not only simplifies the submission process for students but also enhances the work flow and accountability for teachers by centralizing submission management through intuitive dashboards. This system aids in improving the overall efficiency of assignment management, ensuring seamless interaction and reliable tracking of student submissions.

In conclusion, the project has accomplished its objectives and fulfilled its purpose. The software developed through this project is expected to meet the majority of educational institutions' needs for assignment management, providing a valuable tool for both educators and students.

5.3 Future recommendation

In addition to the unfinished requirements, there are other possibilities for further improving the project. This improvement may include:

- Batch system: Help teacher to navigate and get to the actual students
- Attendance : so that teacher could know about the status of student
- Verify; allow to find and choose a nearby restaurant.
- Reward point
- Forget password

Time Plan:

Time	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Task												
Requirement Analysis												
Design												
Implementation and unit testing												
Integration and system testing												
maintenance												

APPENDIX-I

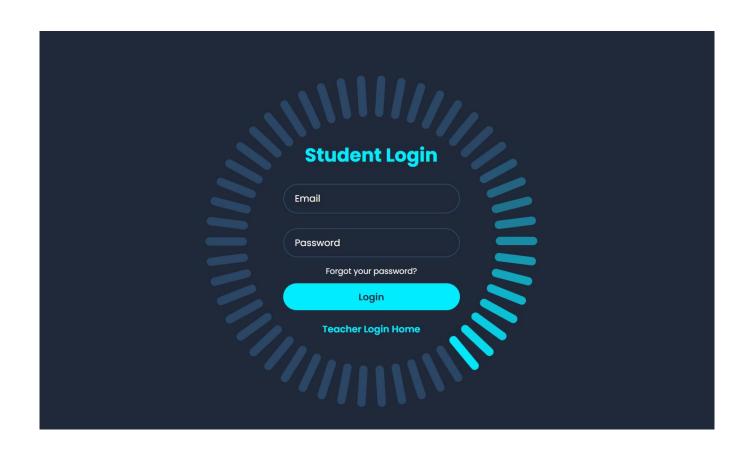


Figure 7: Student login

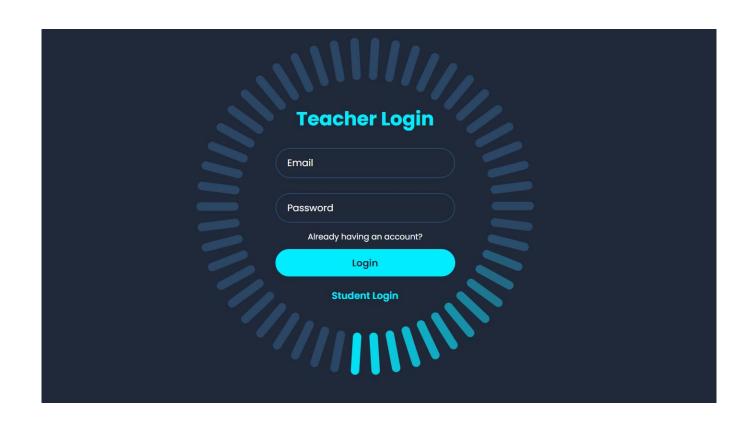


Figure 8: Teacher login

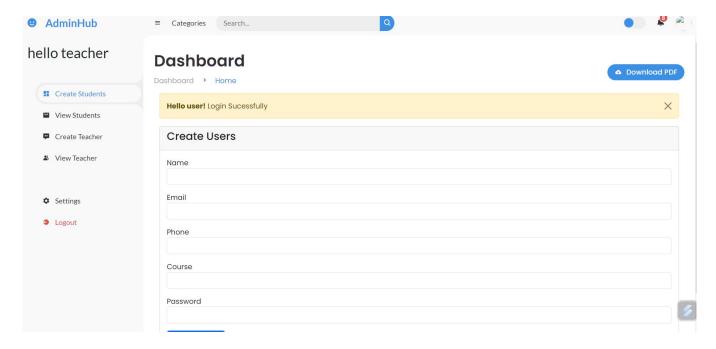
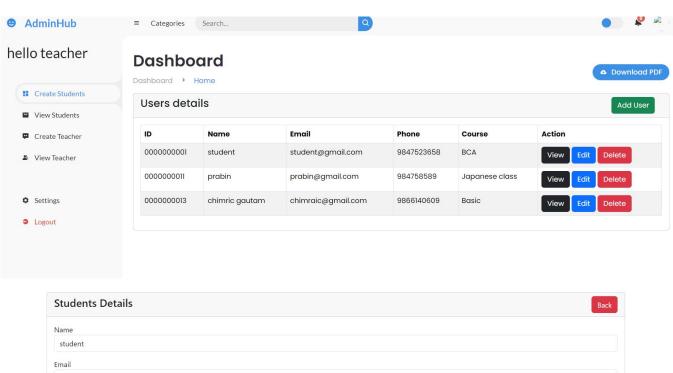
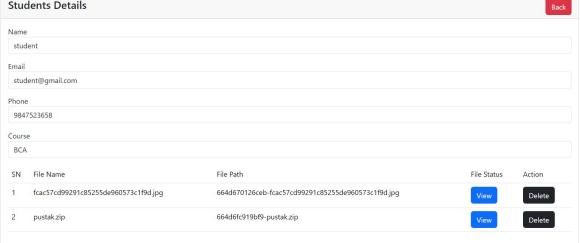
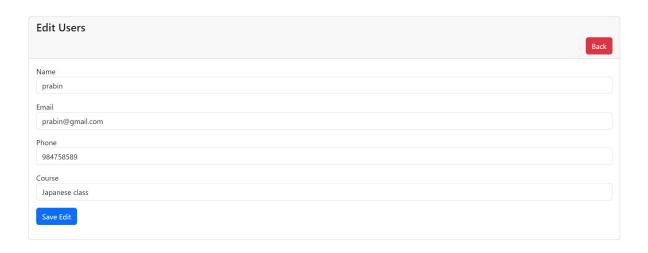


Figure 9: DashBoard







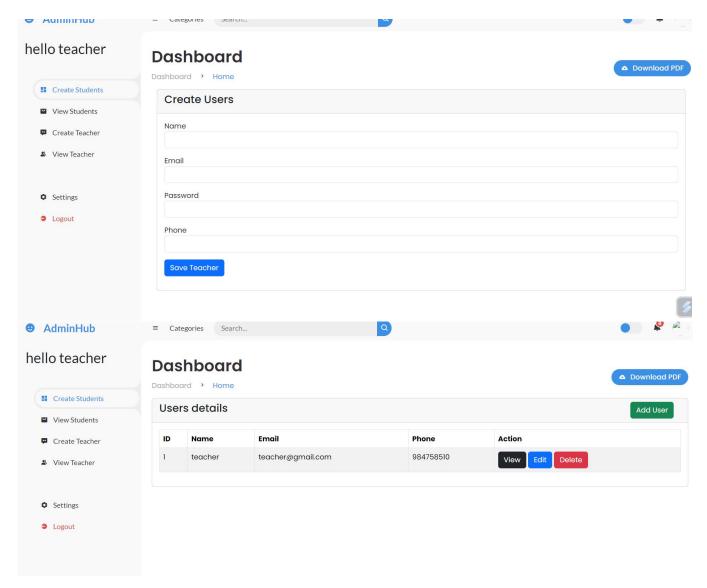
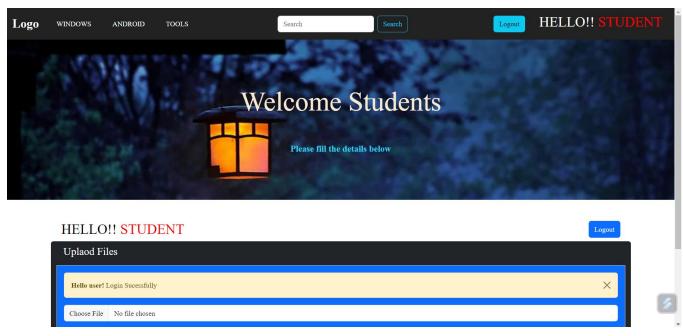


Figure 10: Teacher and Student Adding pages





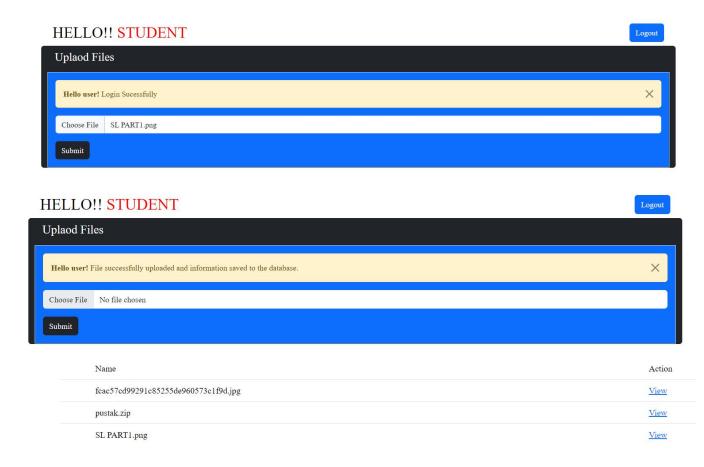


Figure 11: Student Portal