



Department of Computer Science &
Information Technology

University of Sargodha

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Abstract

The art of reading and studying consist in remembering the essential and forgetting what is not essential. This project is to provide data to the students and teachers on a single website. We are doing tireless efforts to put all the required syllabus of Sargodha University with their reference books and past papers. A student can download any material he or she would like to download. We will make sure to be available 24/7 to answer their queries and make friendly environment.

Chapter 1: Final Project Proposal

1.1. Project Title

BS Library

1.2. Introduction

BS library is a web based notes providing, sharing and management system which helps students and teachers to take and share notes online effectively. It reduces the wasting of time in taking notes from different websites and making notes plus manually distributing notes to each individual. It greatly overcomes the lack of availability and converts the manual old school paperwork to a fully automated and managed online system.

BS Library allows its users to securely register and log in to their individual accounts and create, read, and download notes according to their needs. It provides notes to everyone in a very secure manner. Multiple users can work in this system at the same time under centralized supervision by the administrator. It is a very useful notes management system for Colleges, Schools and other Institutes to manage and share their notes in a secure, efficient and effective manner.

1.3. Project Overview statement

1.3.1. Project Title:

BS library

1.3.2. Project Manager:

Sir Zeeshan

1.3.3. Project Members:

- Madeeha Shahid
- Amber Zameer
- Hina Urooj
- Shazana Akram

1.3.4. Project Goal:

The goal of this website is to provide managed and authenticated notes in a short time.

1.3.5. Objectives:

- The system will manage accounts of many users at the same time.
- Any user can sign up online and they will be able to manage the accounts online
- Manage notes came from other users
- Update all notes time to time
- Answer FAQ
- Add update notes

1.3.6. Project Success criteria:

The project's success is based on following criteria:

- **Adaptability:**
The system should be able to adjust to new conditions.
- **Availability:**
The system ensures 24/7 availability.
- **Reliability:**
The system functions according to the stated conditions.
- **Response time:**
The system must have a fast response time.
- **Usability:**
The system provides ease of use, effectiveness, efficiency, learn ability and an overall users' satisfaction in addition to these all systems will perform all the tasks mentioned above.

1.3.7. Assumptions, Risks and Obstacles:

- It is assumed that the team members will cooperate and work seriously on this project.
- It is assumed that the system would be accessible across all global locations through the Internet. Non availability of the Internet would be one of the major obstacles.
- It is assumed that the user is familiar with Internet and World Wide Web navigational tools. The users who are not familiar with these tools would face difficulty to use the system.
- Users will require special training in how to use the functionalities of the system. The level of training depends on the role of the users.

1.3.8. Organization Address (if any):

Bukhari College Jhelum

1.3.9. Target End users:

Manager and administrator of company/organization

1.3.10. Development Technology:

- Object Oriented
- Structure

1.3.11. Platform:

- Web based
- Distributed
- Desktop based
- Setup Configurations
- Others

1.3.12. Approved By:

Sir Zeeshan

1.3.13. Date:

27/11/2020

1.4. Project Goals & Objectives

1.4.1. Goals:

Its main goal is to provide notes of possible topics on a single platform and with full accuracy and authenticity. It also provides answers to frequently asked questions.

1.4.2. Objectives:

The objectives of the system are-

- To reduce manual paperwork.
- Reduced sharing and distribution time.
- Increased reliability.
- Increased operational efficiency.
- Data security.

1.5. High-level system components:

- Manage and maintain a catalogue of every subject.
- Manage and give answers.
- Generate customer receipts
- Simplified Management of all notes.
- User profile management.
- Approve and disapprove notes features.

1.6. List of optional functional units:

- Managing notes

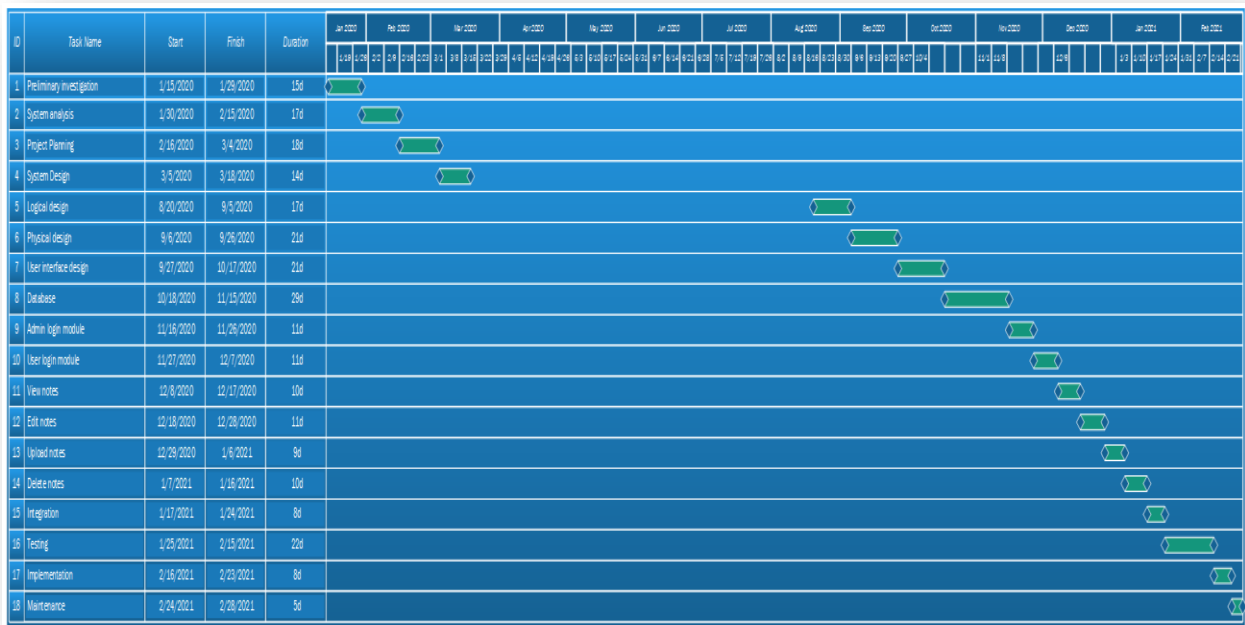
1.7. Exclusions:

It is only a notes providing website which are according to specific subjects and university criteria.

1.8. Application Architecture:

3 Tier Architecture is being used in our system

1.9. Gantt chart:



1.10. Hardware and Software Specification

1.10.1. Hardware and Software Requirements:

- Operating System: Windows 10, 7.
- Web browser with internet connections

1.10.2. Hardware Specification:

- Processor: x86 compatible processor
- RAM: 512 MB or greater
- Hard Disk: 20 GB or greater
- Monitor: VGA/SVGA
- Keyboard: 104 keys standard
- Mouse: 2/3 button. Optical/ Mechanical.

1.11. Tools and technologies used with reasoning:

1.11.1. Front-End /Back-End technologies:

1.11.1.1. Front-End:

HTML:

It is used to generate web pages. HTML, initials of Hypertext Markup Language, is the predominant markup language for web pages. It provides the means to describe the structure of text based information in a document by denoting certain text as headings, paragraphs, list and so on.

CSS:

CSS is used to design for front end designing. With the help of CSS we can make our web pages more attractive and eye catching.

1.11.1.2. Back-End:

My SQL:

My SQL is used to access the database. SQL stands for structured query language and is used to perform different operations on the data stored in the database.

PHP:

PHP is a technology that lets you mix regular, static HTML with dynamic generated HTML. PHP receives any process request from HTML and give the result to HTML after processing to show the result.

1.11.2. Tools:

- PHP Storm
- MySQL
- Google chrome

Chapter 2: First Deliverable

2.1. Introduction:

There are a lot of file sharing websites online. Some websites are AJAX enabled website with a lot of cool features and is also very interactive. All the websites which serves the purpose of online file storage/sharing usually have a size limit to upload files and some have size limit to download files per hour due to space and bandwidth constraints.

2.2. Project Feasibility Report:

After doing the project of online sharing notes website, study and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible – given unlimited resources and infinite time.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

2.2.1. Economic Feasibility:


This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor

- ✚ All hardware and software cost has to be borne by an organization
- ✚ The system require less human power
- ✚ The system will have GUI interface and very less user-training is require to learn it
- ✚ Tangible costs of the project
- ✚ Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and the later on running cost for system

2.2.2. Technical Feasibility:

This includes the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system.

- ✚ PHP to write code or implementing with XAMPP
- ✚ MySQL to build the database to store the data
- ✚ Requirement analysis to know the stockholders constraints for their satisfaction

 Unified Modeling Language(UML) model to do analyzing and designing in good manner

2.2.3. Operational Feasibility:

The system in which we are developing is also compatible with personal computer, tablet and mobile phone. This website is operationally feasibility on this devise platform and operating system. No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

2.2.4. Schedule Feasibility:

We have identified the activities of the project in order to accomplish the project objective within their schedule requirement. In the operational feasibility we study problems and solve their problems about this system are available the user can easily access to the site.

2.2.5. Specification Feasibility:

All the requirements are clearly define in the specification feasibility. All the requirements of the system are well defined by the customer. Everyone easily interact with site through user interface. This system is easily can use in different devices and platforms.

2.2.6. Information Feasibility:

This site interface is helpful and informative for all the persons who interact with it or who want to get any information about admin and their personal information such as their contact email and their qualification. A rich variety of information will be available on this website.

2.2.7. Motivational Feasibility:

Online sharing notes website provides easy access to the both admin and visitor living in their criteria. Admin will be responsible for the whole system, he will be allowing to the user to interact with system after proper authentication, otherwise he or she will be not able to access the system.

2.2.8. Legal & Ethical Feasibility:

Legal and ethical feasibility describes whether our website conflicts with legal requirements. Online sharing note website legally and ethically feasible administrator has the right to access the system. He has right to change any information. He will be responsible for

managing all information related to this project. Students and visitors can only view information related to city. He /She are not able to modify this information, only Admin will perform this.

2.3. Project/Product Scope:

This system is implemented for students who belong to Sargodha University (SU). This website contains notes, past papers, reference books and other material which can be useful to students. Instead of browsing over internet, student gets relevant material in one roof. Any student can login to our website and can share any beneficial material for other students. We will make sure that student able to download any document. Students can mail us for any query and we'll make sure to resolve it.

2.4. Project/Product Costing

2.4.1. Project Cost Estimation by Function Point Analysis:

Information domain values are defined in the following manner: To compute function points (FP), the following relationship is used:

$$\text{FP est.} = 91 * [0.65 + 0.01 * (28)]$$

$$\text{FP est.} = 91 * [0.65 + 0.01 * 28] \quad \gg \quad \text{FP est.} = 84.63$$

<u>Type of Components</u>	<u>Low</u>	<u>Average</u>	<u>High</u>	<u>Total</u>
External Input	0*4=0	5*0=0	5*6=30	30
Internal Output	6*0=0	0*3=0	6*3=18	18
External Inquire	2*5=10	0*5=0	4*0=0	10
Internal Logical Files	0*6=0	1*17=17	0*14=0	17
External Interface File	0*2=0	2*8=16	0*12=0	16
Total				91

<u>Serial</u>	<u>Complex Technology Term</u>	<u>Scale</u>
1	Data Communication	0
2	Distributed data processing	0
3	Performance	4
4	Heavily used configuration	2
5	Transact rate	1
6	Online data entry	0
7	End-user Efficiency	4
8	Online update	0
9	Complex Processing	3
10	Reusability	3
11	Installation ease	4
12	Operational ease	4
13	Multiple Sites	0
14	Facilitate change	3
Sum(Fi)		28

2.4.2. Project Cost Estimation by using COCOMO'81 (Constructive Cost Model)

Basic COCOMO:

Types:

1. Organic:

$$\text{Effort: } PM = a_b (KLOC)^{b_b}$$

$$\text{Schedule: } TD = c_b (PM)^{d_b}$$

Where **KLOC** is lines of codes in thousand

PM is person month (effort applied)

TD is development time

Let KLOC=300KLOC

Effort: $PM=2.4(300)^{1.05} = 957.61PM$

Schedule: $TD=2.5(957.61)^{0.38} = 33.94PM$

2. Semi-detached:

Effort: $PM=a_b(KLOC)^{b_b}$

Schedule: $TD=c_b(PM)^{d_b}$

Effort: $PM=3.0(300)^{1.12} = 1784.42PM$

Schedule: $TD=2.5(1784.42)^{0.35} = 34.35PM$

3. Embedded:

Effort: $PM=a_b(KLOC)^{b_b}$

Schedule: $TD=c_b(PM)^{d_b}$

Effort: $PM=3.6(300)^{1.20} = 3379.46PM$

Schedule: $TD=2.5(3379.46)^{0.32} = 33.66PM$

Intermediate COCOMO:

Types:

1. Organic:

Effort: $PM=a_b(KLOC)^{b_b}*EAF$

Schedule: $TD=c_b(PM)^{d_b}$

Where **KLOC** is lines of codes in thousand

PM is person month (effort applied)

TD is development time

EAF is effort adjustment factor

Let KLOC=300KLOC

EAF=1.15

Effort: $PM=3.2(300)^{1.05}*1.15 = 1468.33PM$

Schedule: $TD=2.5(1468.33)^{0.38} = 39.93PM$

2. Semi-detached:

$$\text{Effort: PM} = a_b (\text{KLOC})^{b_b} * \text{EAF}$$

$$\text{Schedule: TD} = c_b (\text{PM})^{d_b}$$

$$\text{Effort: PM} = 3.0(300)^{1.12} * 1.15 = 2052.08\text{PM}$$

$$\text{Schedule: TD} = 2.5(2052.08)^{0.35} = 36.07\text{PM}$$

3. Embedded:

$$\text{Effort: PM} = a_b (\text{KLOC})^{b_b} * \text{EAF}$$

$$\text{Schedule: TD} = c_b (\text{PM})^{d_b}$$

$$\text{Effort: PM} = 2.8(300)^{1.20} * 1.15 = 3022.74\text{PM}$$

$$\text{Schedule: TD} = 2.5(3022.74)^{0.32} = 32.48\text{PM}$$

2.4.3. Activity Based Costing:

<u>Activity</u>	<u>Cost</u>
Feasibility Report	1000
Cost Estimation by Function Point Analysis	2000
Cost Estimation by COCOMO Model	2000
Activity based Costing	2000
Critical Path Method	3000
Task Dependency and Duration	2000
Vision Document	1000
Risk List	500
Allocate Requirement	500
Design Interface	10000
Modeling	15000
Test and Evaluate	5000
Improve Test	3000

Show Result	4000
Total Cost	49000

2.5. Task Dependency Table:

<u>Task no.</u>	<u>Task</u>	<u>Dependencies</u>
T1	Proposal	None
T2	Feasibility Report	T1
T3	Cost Estimation System Specification	T2
T4	Analysis	T2
T5	Domain Model	T1,T2
T6	Allocate Requirements	None
T7	Application Development	T4,T5
T8	User	T7
T9	Processing	T7,T8
T10	Testing	T9
T11	Showing	T7,T8,T9,T10

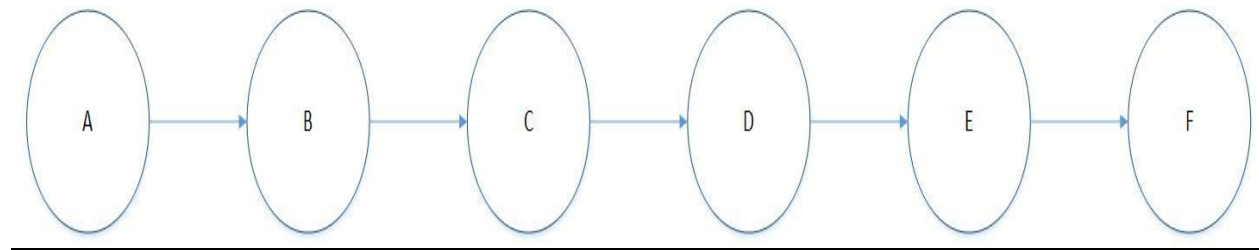
2.6. Critical path method (CPM):

The critical path method is a step-by-step project management technique for process planning that defines critical and non-critical tasks with the goal of preventing timeframe problems. The critical path method is ideally suit to projects consisting of numerous activities that interact in a complex manner.

2.6.1. Determine the Sequence of the Activities:

All activities are dependent on each other like, first planning and then go to second activity which is named as Analysis, And then logical designing after it physical designing, then testing it all and then deployment.

2.6.2. Draw the Network Diagram:



2.6.3. Estimate Activity Completion Time:

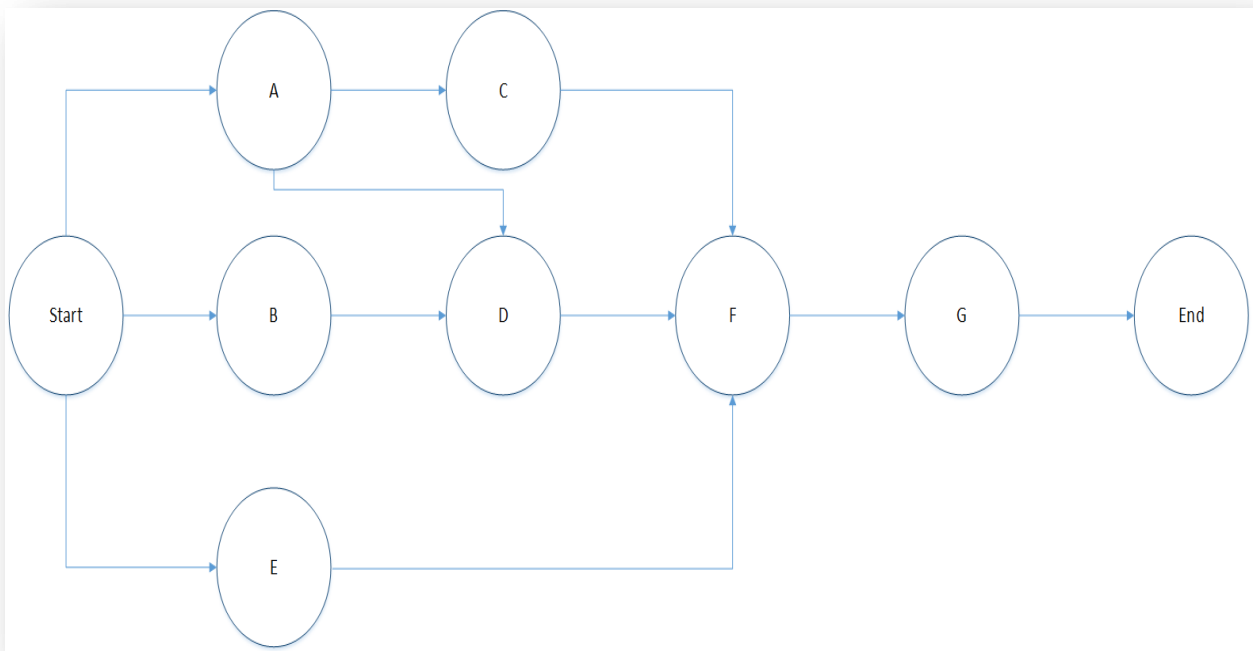
<u>Activity</u>	<u>Duration</u>	<u>ES</u>	<u>EF</u>	<u>LS</u>	<u>LF</u>	<u>TS</u>	<u>FS</u>
Planning (A)	5	0	5	0	5	0	0
Analysis (B)	4	0	4	4	8	4	3
Logical designing (C)	8	5	13	5	13	0	0
Physical designing (D)	7	5	12	6	13	1	1
Testing (E)	7	0	7	6	13	6	6
Deployment (F)	4	13	17	13	17	0	0

2.6.4. Identify the Critical Path:

The critical path is the longest-duration path through the network. The significance of the critical path is that the activities that lie on it cannot be delayed without delaying the project. Because of its impact on the entire project, critical path analysis is an important aspect of project planning. Critical path is: (A, B, C, D, E, and F)

2.6.5. Update CPM Diagram:

<u>Activity</u>	<u>Immediate Predecessor</u>	<u>Duration (Weeks)</u>
A	None	1
B	None	1
C	A	3
D	A,B	4
E	None	4
F	C,D,E	5
G	F	3



Network diagram

The critical path is: A, C, F, and G

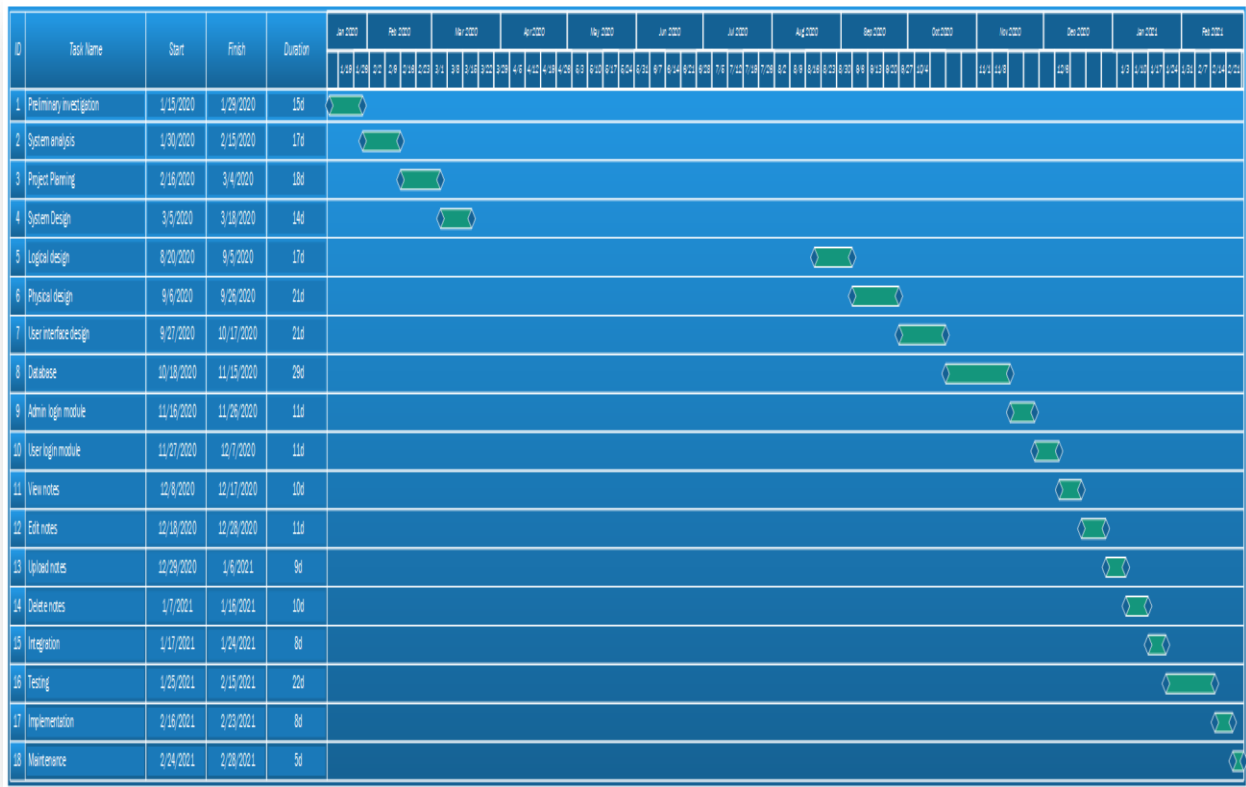
2.6.6. Specify the individual activities:

<u>Task</u>
Preliminary investigation
System analysis
Project planning
System design
Logical design
Physical design
User interface design
Database
Admin login module
User login module
View notes
Edit notes
Upload notes
Delete notes
Integration
Testing
Implementation
Maintenance

2.6.7. Task Dependency table:

<u>Id</u>	<u>Task</u>	<u>Start</u>	<u>Finish</u>	<u>Duration</u>	<u>Predecessor</u>
1	A: Preliminary investigation	15/01/2020	29/01/2020	2w 1d	None
2	B: System analysis	30/01/2020	15/02/2020	2w 3d	A
3	C: Project planning	16/02/2020	04/03/2020	2w 4d	B
4	D: System design	5/03/2020	20/03/2020	2w	B,C
5	E: Logical design	20/08/2020	05/09/2020	2w 3d	D
6	F: Physical design	06/09/2020	26/09/2020	3w	D,E
7	G: User interface design	27/09/2020	17/10/2020	3w	E,F
8	H: Database	18/10/2020	15/10/2020	4w 1d	None
9	I: Admin login module	16/10/2020	26/10/2020	1w 4d	H
10	J: User login module	27/10/2020	07/12/2020	1w 4d	I
11	K: View notes	08/12/2020	17/12/2020	1w 3d	I,J
12	L: Edit notes	18/12/2020	28/12/2020	1w 4d	None
13	M: Upload notes	29/12/2020	6/01/2021	1w 2d	L
14	N: Delete notes	7/01/2021	16/01/2021	1w 3d	M
15	O: Integration	17/01/2020	24/01/2021	1w 1d	I,J,K,L,M,N
16	P: Testing	25/01/2021	15/02/2021	3w 1d	O
17	Q: Implementation	16/02/2021	23/02/2021	1w 1d	P
18	R: Maintenance	24/02/2021	28/02/2021	5d	Q

2.7. Gantt chart:



2.8. Introduction to Team member and their skill set:

<u>Name</u>	<u>Roll No</u>	<u>Skill</u>
Madeeha Shahid	16BSCS19713	HTML, CSS, C, C++, Artificial Intelligence (basic), MS Office
Hina Urooj Malik	16BSCS19718	HTML, CSS, Report writing, Database, MS Office
Shazana Akram	16BSCS19717	HTML, CSS, C, Report Writing, MS Office
Amber Zameer Kiyani	16BSCS19711	HTML, CSS, Report writing, C++

2.9. Task and Member Assignment Table:

<u>Task No</u>	<u>Task</u>	<u>Dependencies</u>
T1	Proposal	None
T2	Feasibility Report	T1
T3	Cost Estimation	T2
T4	System Specification and Analysis	T2
T5	Physical Design	T1,T2
T6	Designing Pages	None
T7	Application Development	T4,T5
T8	Integration	T5,T6,T7
T9	Processing	T7,T8
T10	Testing	T9
T11	Showing	T7,T8,T9,T10

2.9.1. Allocation of People to Activities:

<u>Task No</u>	<u>Members Activities</u>
T1	Shazana, Madeeha
T2	Amber, Hina
T3	Madeeha, Hina
T4	Shazana, Amber
T5	Madeeha, Amber
T6	Hina, Shazana
T7	Madeeha, Hina
T8	Amber, Shazana

T9	Amber, Shazana, Hina
T10	Hina, Madeeha
T11	Shazana, Amber

2.10. Tools and Technology with reasoning:

There are following tools and technologies that are used in our system:

2.10.1. Tools:

- **MS Visio Professional:**
We used Visio for ERD and Sequence diagram
- **MS Project Professional:**
We used MS Project for Gantt chart.
- **MS word:**
For project documentation
- **Not pad++/Bracket:**
For coding
- **Web Server:**
Apache web server or other who concern with PHP codes or scripts. It is basically used to run the PHP code or file on browser.
- **Web-browsing software:**
Mozilla Firefox, Internet Explorer or other
- **XAMPP- :**
WIN-32-1.6.3a

2.10.2. Technologies:

- **PHP:**
It is used for back end tools for the system.
- **MYSQL:**
Use to maintain database. So, you can call it to back-end of system.
- **HTML & CSS &Bootstrap:**
These are used for font end because they sport to produce good front end .Bootstrap used for responsiveness.

2.11. Vision Document

2.11.1. Introduction:

File sharing is one of the oldest applications of the internet. One way of sharing files online is for a user to upload files to a common space on the web and others users can download the files from the common web space.

2.11.1. Scope and vision:

Online File Sharing is practice of sharing files among different users across the internet. Common forms of file sharing are FTP (File Transfer Protocol) model and P2P (Peer-to-Peer) file sharing network. Another common form of sharing files over the internet is for a user to upload files to a website and allow other users to download them from the website. Any student can login to our website and can share any beneficial material for other students. We will make sure that student able to download any document. Students can mail us for any query and we'll make sure to resolve it.

2.12. Risk List:

We may encounter following risks:

- Short time
- Editing Cost

2.13. Product Features/ Product Decomposition:

Our product features are as follows:

- Easy to use
- Generate fine and accurate result
- Manages profit and loss reports
- Create customer invoices
- Manage bank transactions

Chapter 3: Second Deliverable for Object Oriented Approach

3.1. Introduction:

Account BS Library is designed to facilitate users to get information under one roof. Download options are also given where the student or the teachers will download there related work in no time and is available 24/7. Moreover, user can also ask questions on the given e-mail. There is also an option to the user that they can send data to the admin and the admin will publish that data with the name of the sender after authentication.

3.2. Existing System:

Existing system may not provide data according to syllabus or may use difficult material or it may not be sufficient for geeks.

3.3. Scope of the System:

This system will provide all the data according to the current syllabus of Sargodha University. The data will be in easy words and can be easily readable. The user will get all the past papers with solved exercises in this one website. This system is implemented for students who belong to Sargodha University (SU). This website contains notes, past papers, reference books and other material which can be useful to students. Instead of browsing over internet, student gets relevant material in one roof. Any student can login to our website and can share any beneficial material for other students. We will make sure that student able to download any document. Students can mail us for any query and we'll make sure to resolve it.

3.4. Summary of Requirements:

3.4.1. Initial requirements:

The System will be operated by an admin. He will manage all activities performed by the system.

3.4.2. Registration:

In order to perform further action admin or will need to first register. Admin will enter his credentials to register him.

3.4.3. Login:

After registration admin will enter his user name and password to log in.

3.4.4. Admin Interface:

From admin interface, there will be a dashboard having information of different notes, past papers, programs related to different languages such as C, C++, etc.

3.4.5. About:

After clicking on about button the user will be directed to the page where the purpose of the website is described. The scope of the website is mentioned in the about option.

3.4.6. Contact us:

After clicking on contact button, the admin will be directed to his contact info which she has given to users. She may give number or e mail id.

3.4.7. Department:

Another option is Departments which includes separate notes on every department.

3.4.8. User info:

User info includes the password through which the user has entered the website. The user may enter by providing his e mail and password. The Admin has access to the user information.

3.4.9. Programming:

This is another button which includes programs of C languages with their maximum information.

3.4.10. Past Papers:

After clicking on Past paper the user will be redirected to all the past papers on the website. The past papers may contain solutions too.

3.5. External Entities:

Main external entity is only one in this system:

Admin

3.6. Capture “shall” Statement:

<u>Para#</u>	<u>Initial Requirements</u>
1.0	Shall system give user interface and log in option too.
1.0	Shall system Manage other logged in accounts
1.0	Shall System update all data time to time
1.0	Shall System Manage past papers
1.0	Shall System manage queries
1.0	Shall system manage reference books
1.0	Shall system reference notes

3.7. Allocate Requirements:

<u>Para#</u>	<u>Initial Requirements</u>	<u>Use case name</u>
1.0	Admin Shall register himself	UC_Registration
1.0	Admin shall login	UC_Login_Admin
1.0	He shall add information	UC_Admin
1.0	He shall add, update information	UC_Admin
1.0	He shall add, update and delete logged in accounts	UC_User
1.0	He shall add, update and delete books	UC_Admin

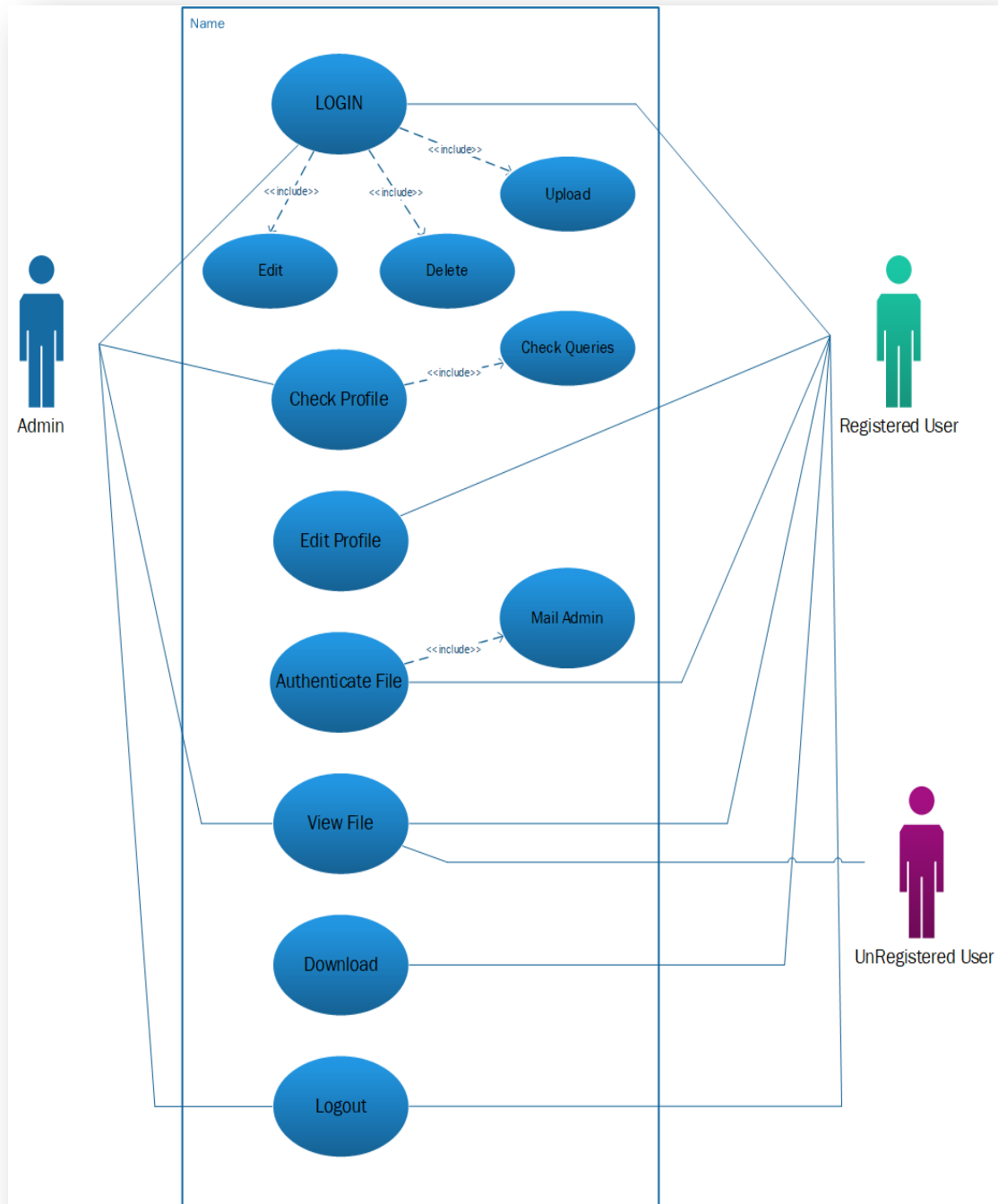
1.0	He shall add, update and delete videos	UC_Admin
1.0	System shall update past papers	UC_Admin
1.0	He shall view notes	UC_User

3.8. Priorities Requirements:

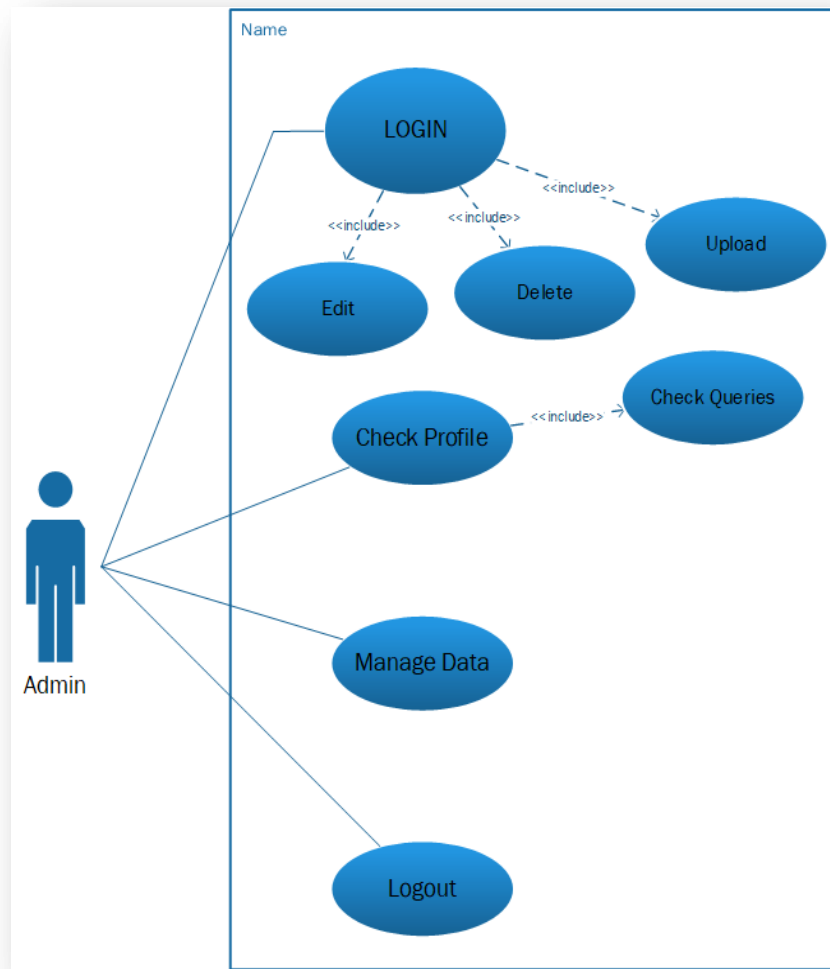
<u>Para#</u>	<u>Rank</u>	<u>Initial Requirements</u>	<u>Use case ID</u>	<u>Use case Name</u>
1.0	Highest	Admin will register himself	Uc.1	UC_Admin_Register
1.0	Highest	Admin will login.	Uc.2	UC_Admin_Login
1.0	Highest	He will add data	Uc.3	UC_Add_Data
1.0	Highest	He will update Data	Uc.3	UC_Update_Data
1.0	Highest	He will delete data	Uc.4	UC_Delete_Data
1.0	Highest	He will manage user account	Uc.4	UC_Manage_User Account
1.0	Medium	He will delete User account	Uc.4	UC_Delete_User Account
1.0	Highest	He will read queries	Uc.5	UC_Read_User Account
1.0	Highest	He will answer queries	Uc.6	UC_Anwer_Queries

3.9. Use Case:

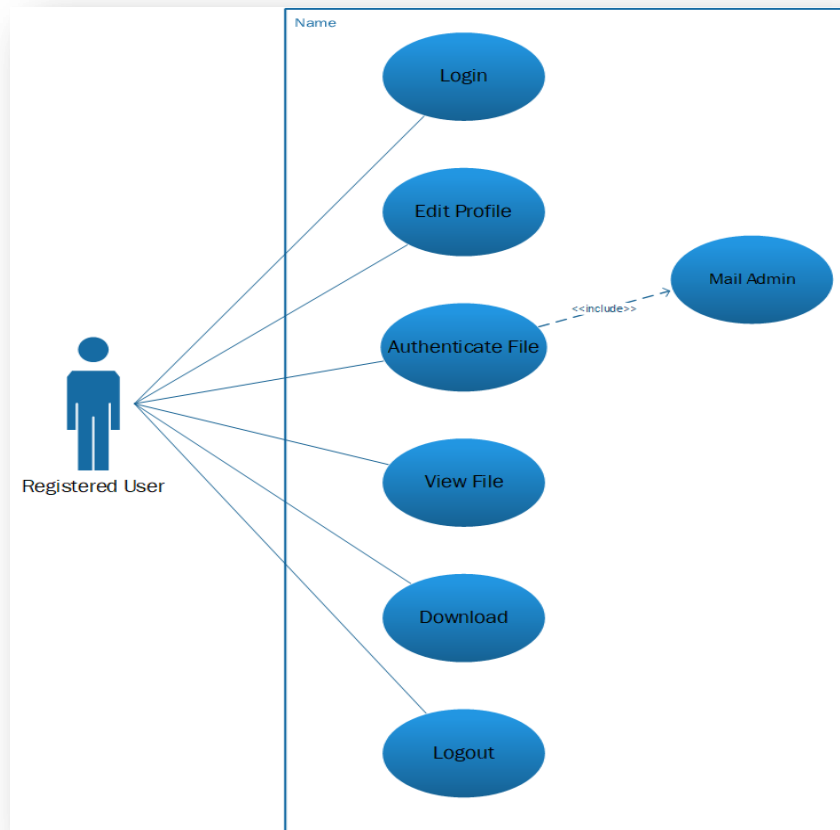
3.9.1. System Use Case Diagram:



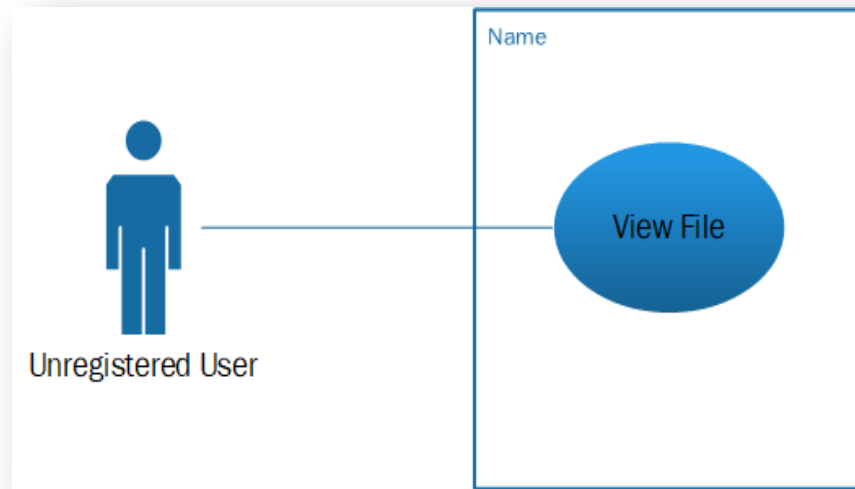
3.9.2. Admin:



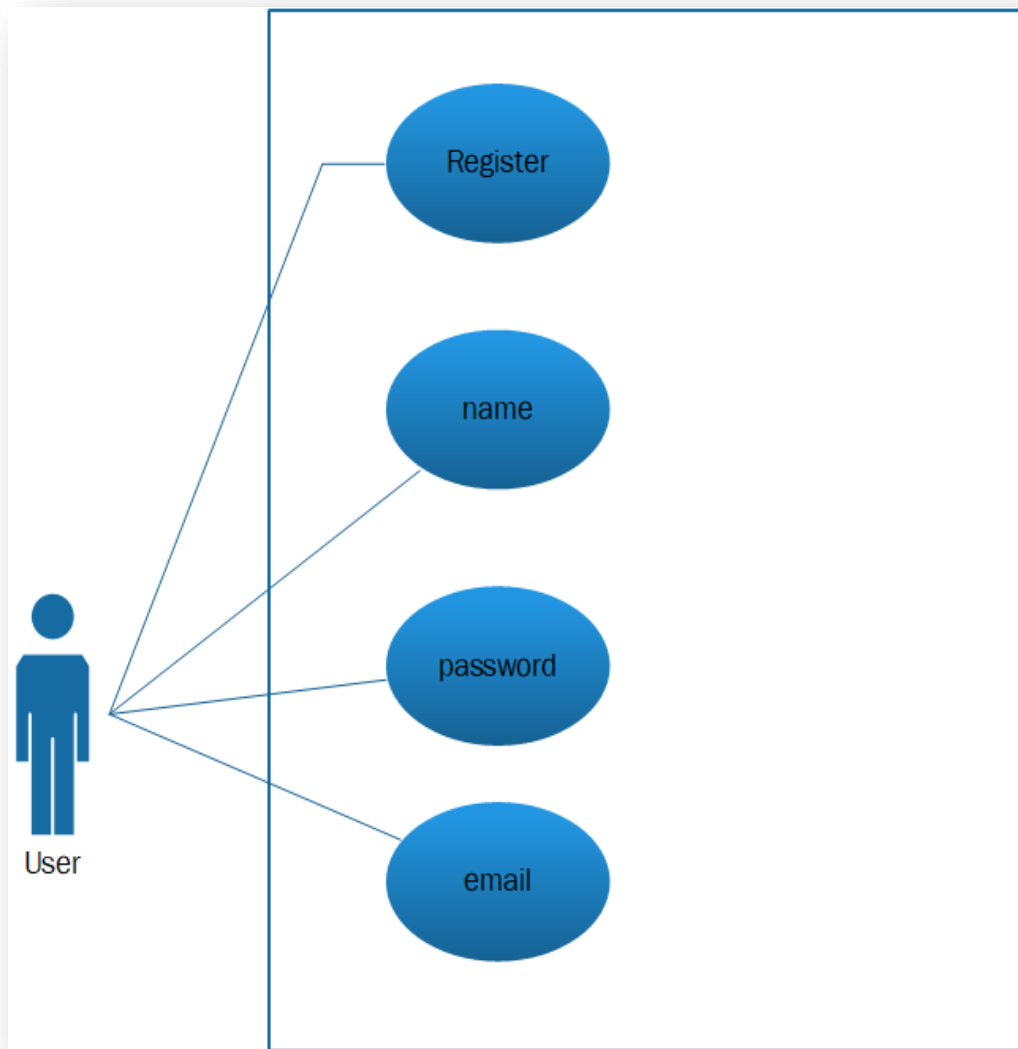
3.9.3. Registered User:



3.9.4. Unregistered User:



3.9.5. Signup for Unregistered User:



3.10. Use case Description:

- **Admin Registration**

<u>Use case name: UC Admin Register</u>	<u>Use case ID: 1</u>
Pre-Conditions:	System is on.
Basic flow:	Enter admin detail.
Alternative flow :	Not done.
Post -Conditions:	Registered.

- **Admin Login:**

<u>Use case name: UC Admin Login</u>	<u>Use case ID: 2</u>
Pre-Conditions:	System is on.
Basic flow:	Enter admin email and Password.
Alternative flow :	Enter again Email and Password.
Post -Conditions:	Login Successfully.

- **Add information:**

<u>Use case name: UC Add information</u>	<u>Use case ID: 3</u>
Pre-Conditions:	Login admin
Basic flow:	Enter Information.
Alternative flow :	Again enter information.
Post -Conditions:	Enter information Successfully.

- **Update Information:**

<u>Use case name: UC Update Information</u>	<u>Use case ID: 4</u>
Pre-Conditions:	Login admin
Basic flow:	Update details.
Alternative flow :	Not done.
Post -Conditions:	Update details Successfully.

- **View Information:**

<u>Use case name: UC View information</u>	<u>Use case ID: 5</u>
Pre-Conditions:	Login admin
Basic flow:	View info.
Alternative flow :	Not done.
Post -Conditions:	View info Successfully.

- **Manage user details:**

<u>Use case name:</u> <u>UC Manage User Details</u>	<u>Use case ID: 6</u>
Pre-Conditions:	Login admin
Basic flow:	Add Manage details.
Alternative flow :	Not done.
Post -Conditions:	Manage user Details Successfully.

- **Delete User Details:**

<u>Use case name: UC Delete User</u>	<u>Use case ID: 7</u>
Pre-Conditions:	Login admin
Basic flow:	Delete user acc.
Alternative flow :	Not done.
Post -Conditions:	Delete user account Successfully.

- **Register User View Details:**

<u>Use case name: UC View Details</u>	<u>Use case ID: 8</u>
Pre-Conditions:	Login admin
Basic flow:	View Details.
Alternative flow :	Not done.
Post -Conditions:	View Details Successfully.

- **Register User Edit Details:**

<u>Use case name: UC Edit Details</u>	<u>Use case ID: 9</u>
Pre-Conditions:	Login admin
Basic flow:	Add password and e mail.
Alternative flow :	Not done.
Post -Conditions:	Edit Successfully.

- **Register user Download Details:**

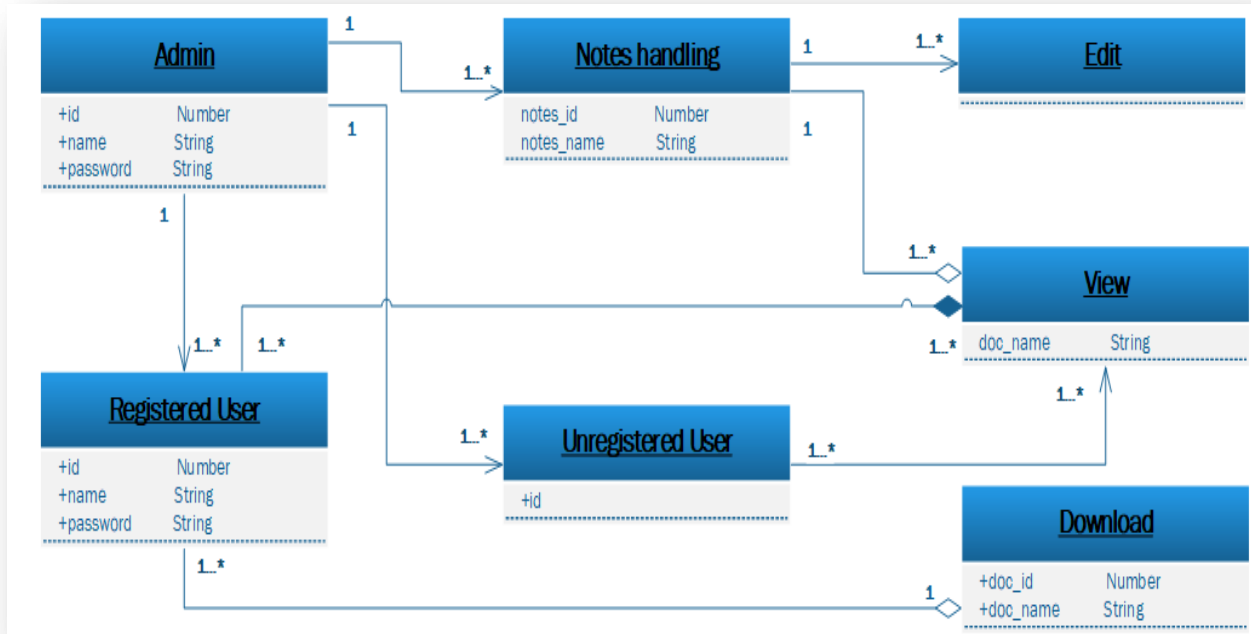
<u>Use case name: UC_Download_Details</u>	<u>Use case ID: 10</u>
Pre-Conditions:	Login admin
Basic flow:	Download size.
Alternative flow :	Not done.
Post -Conditions:	Download Successfully.

- **Unregister View User Details:**

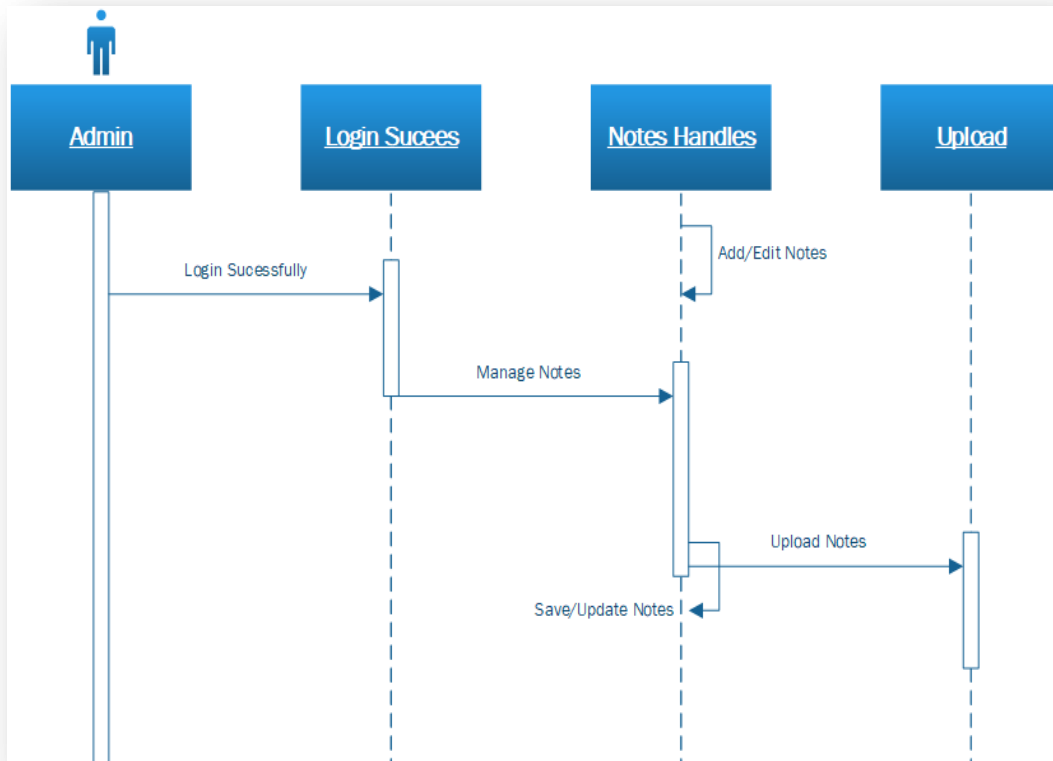
<u>Use case name: UC View Details</u>	<u>Use case ID: 11</u>
Pre-Conditions:	Login admin
Basic flow:	View data.
Alternative flow :	Not done.
Post -Conditions:	Viewed Details Successfully.

Chapter 4: Third Deliverable for Object Oriented Approach

4.1. Domain Model:

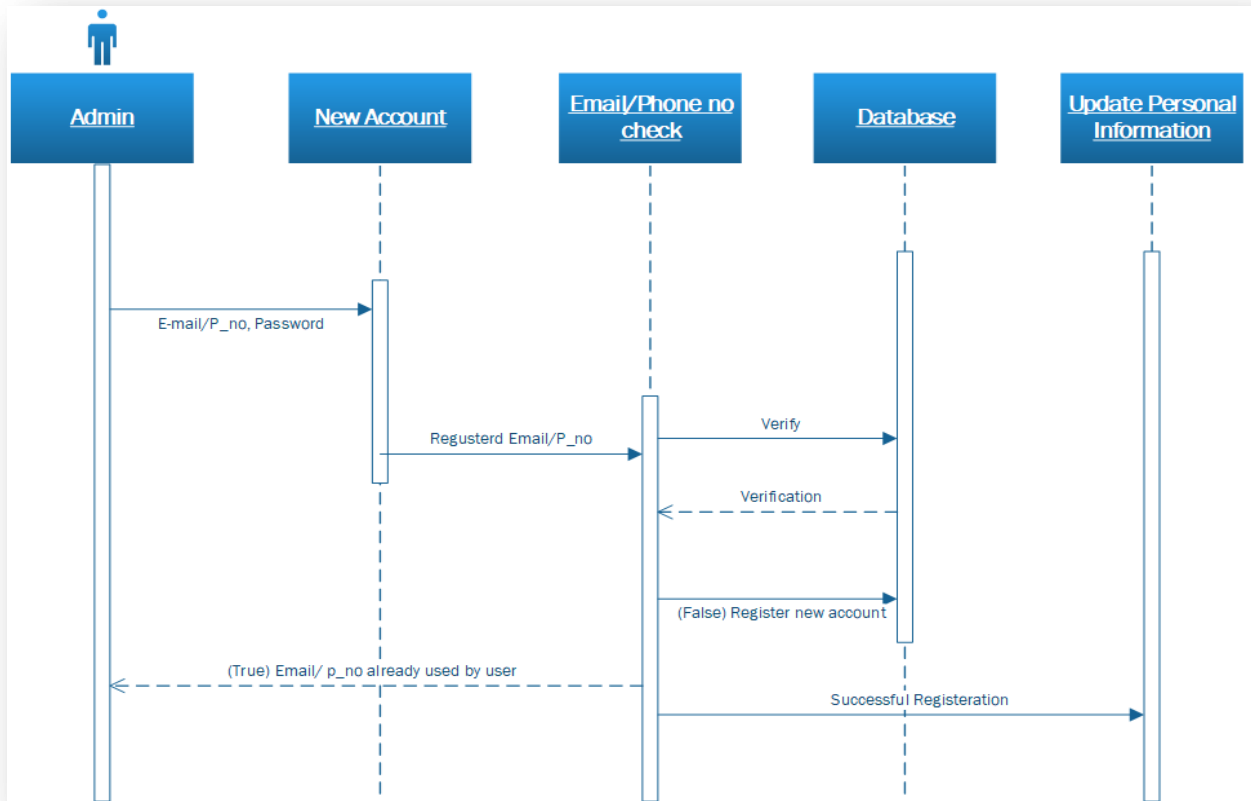


4.2. System Sequence Diagram:

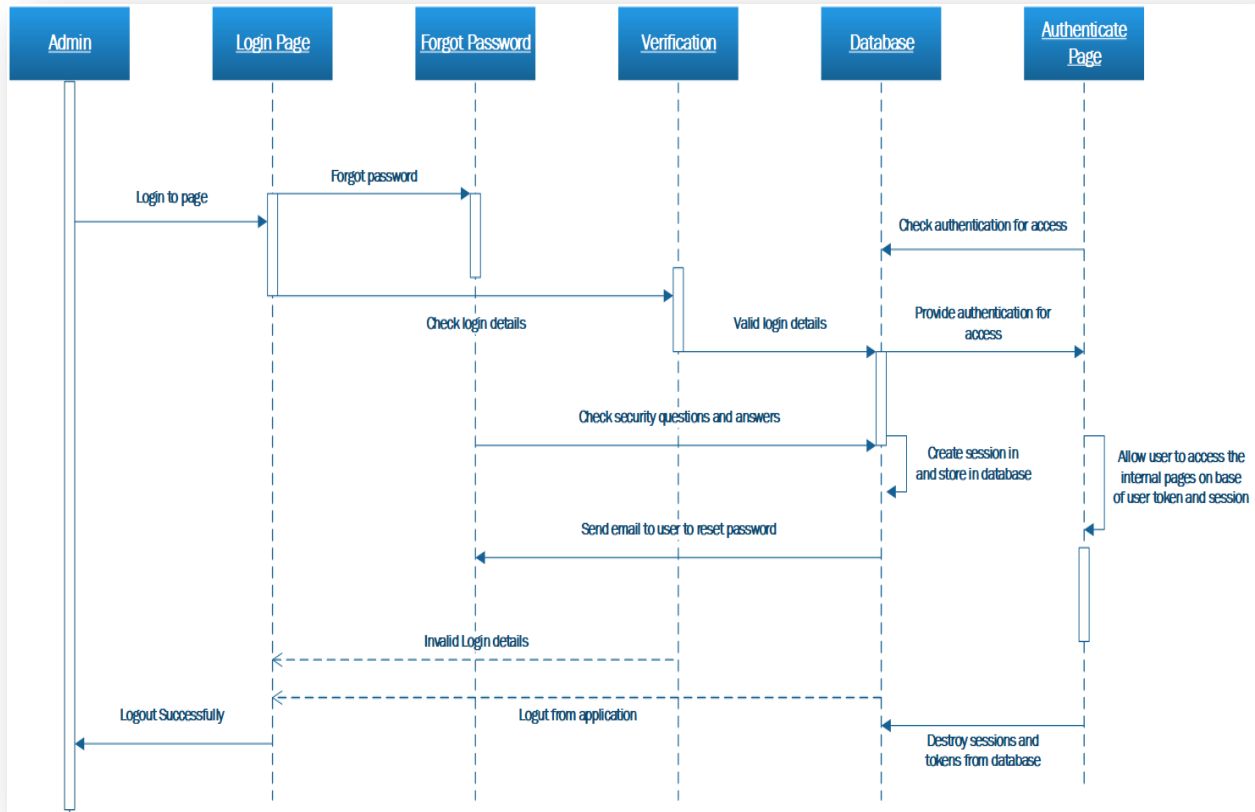


4.2.1. Sequence Diagram:

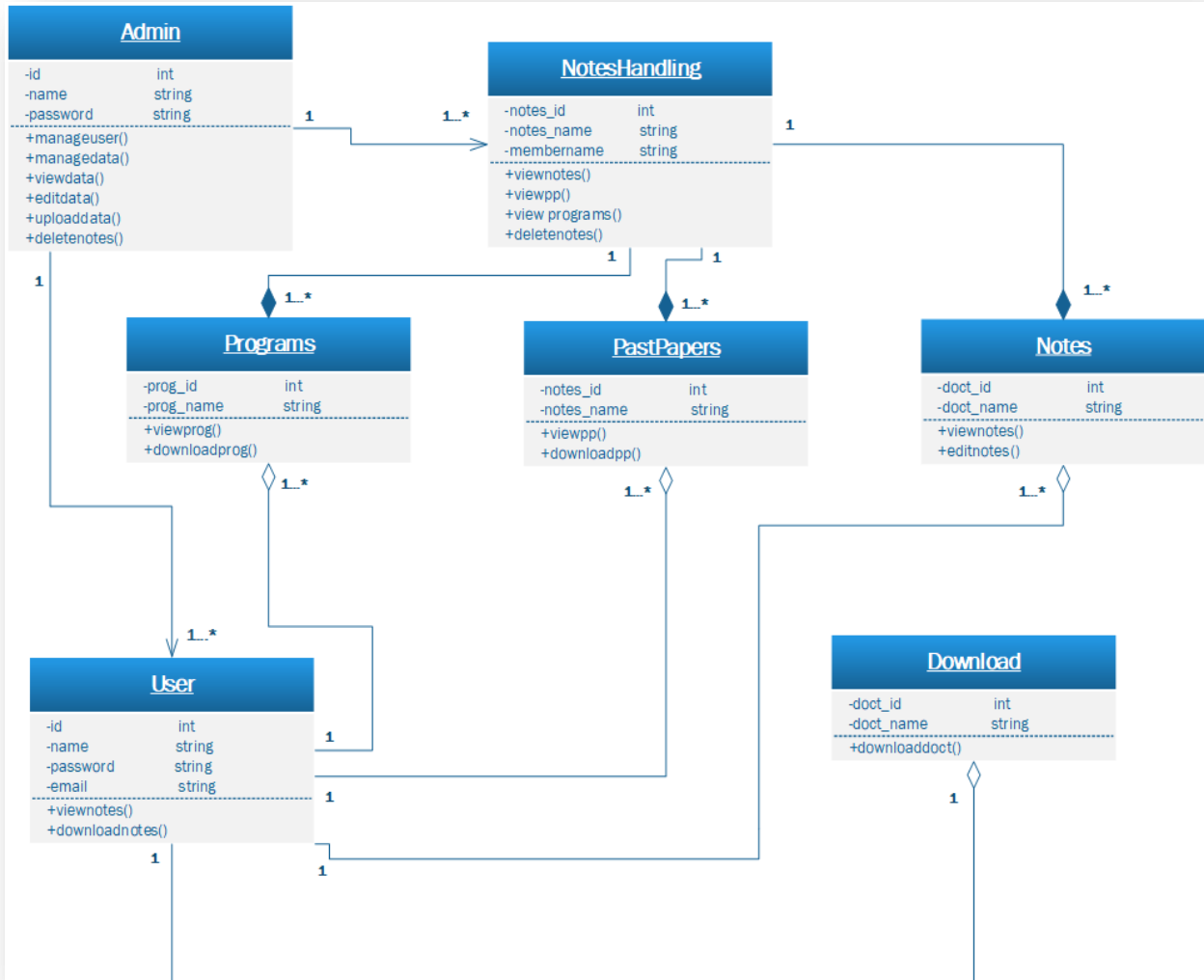
User Registration:



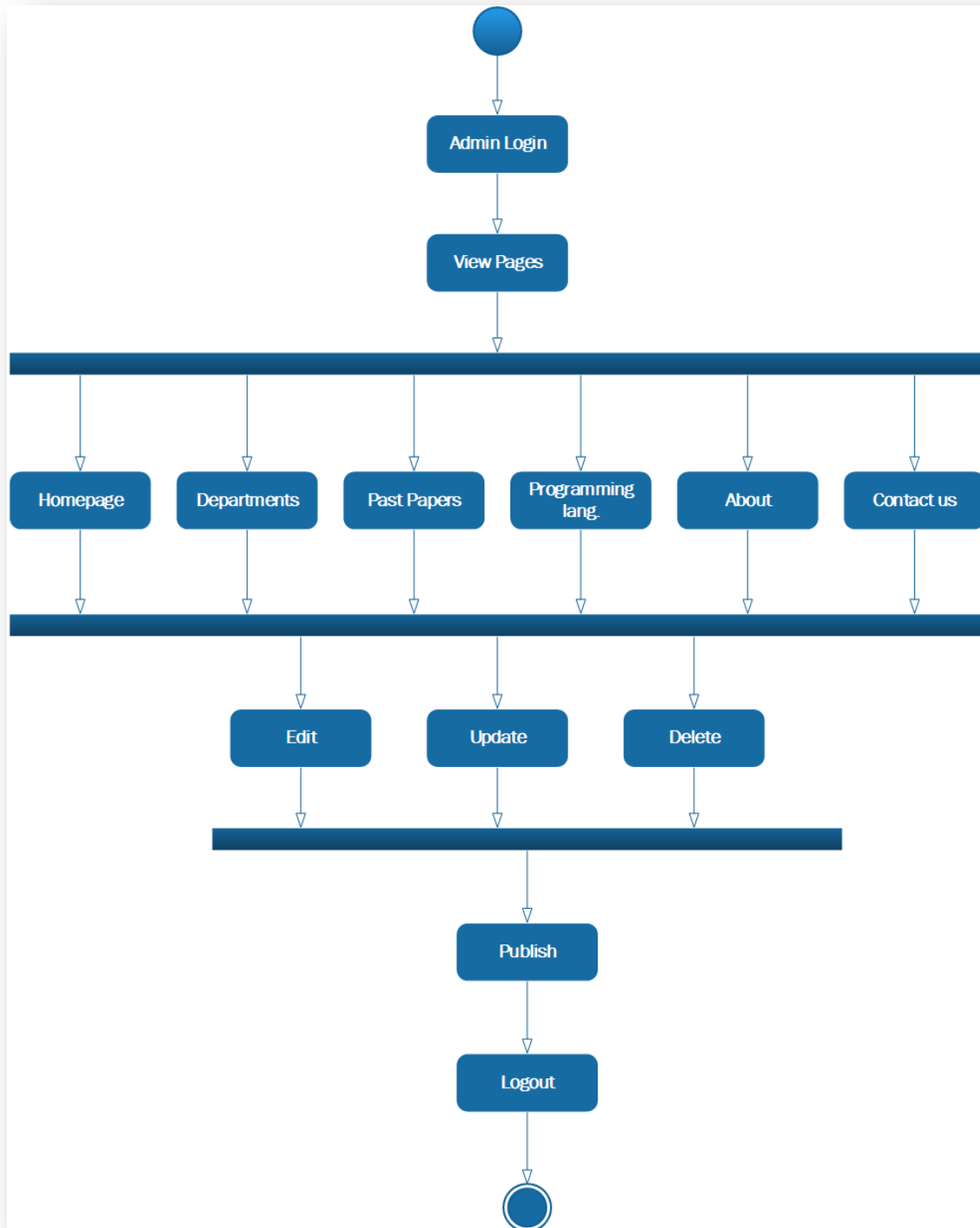
4.3. Admin Login:



4.4. Class Diagram:

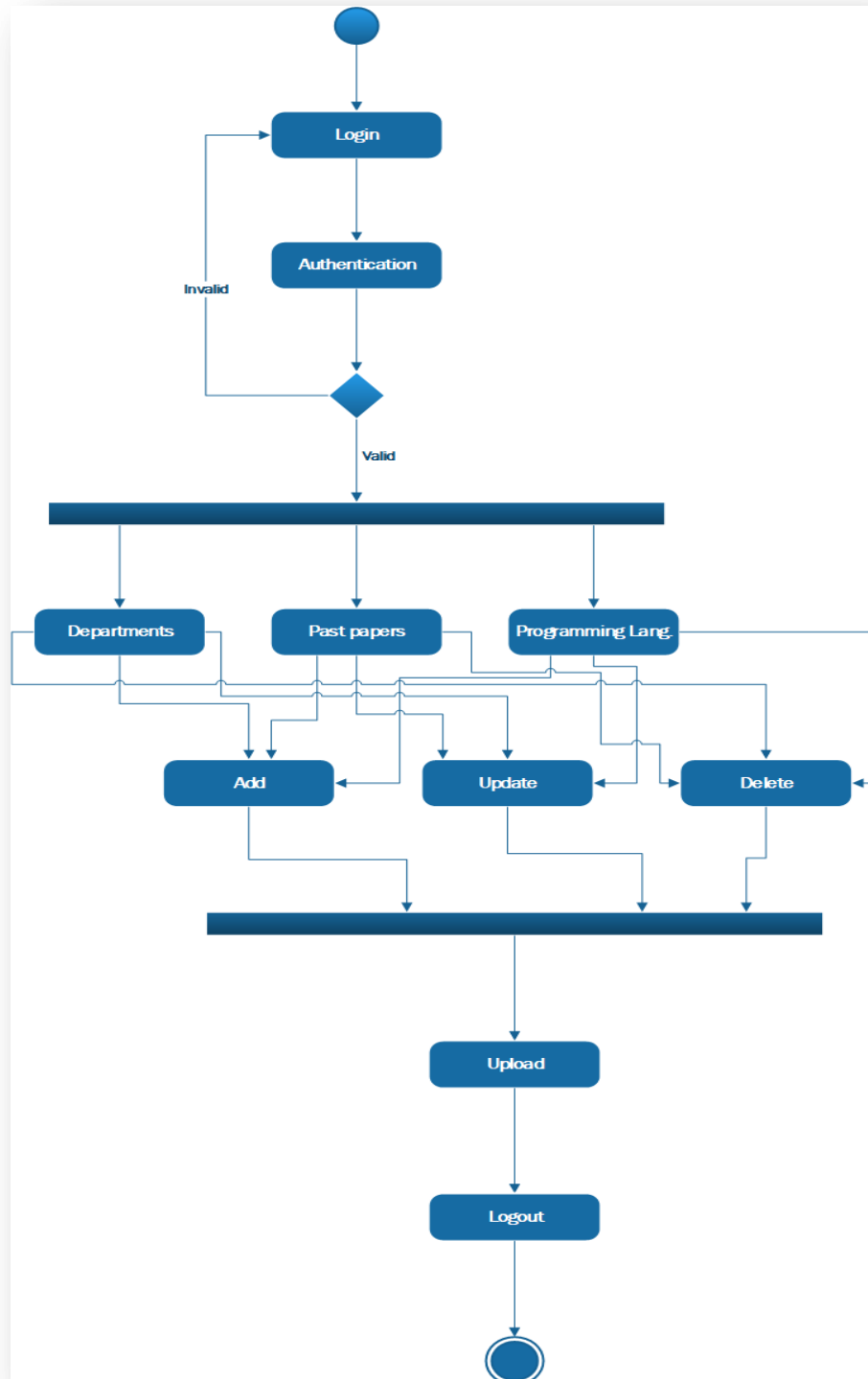


4.5. State Chart Diagram:

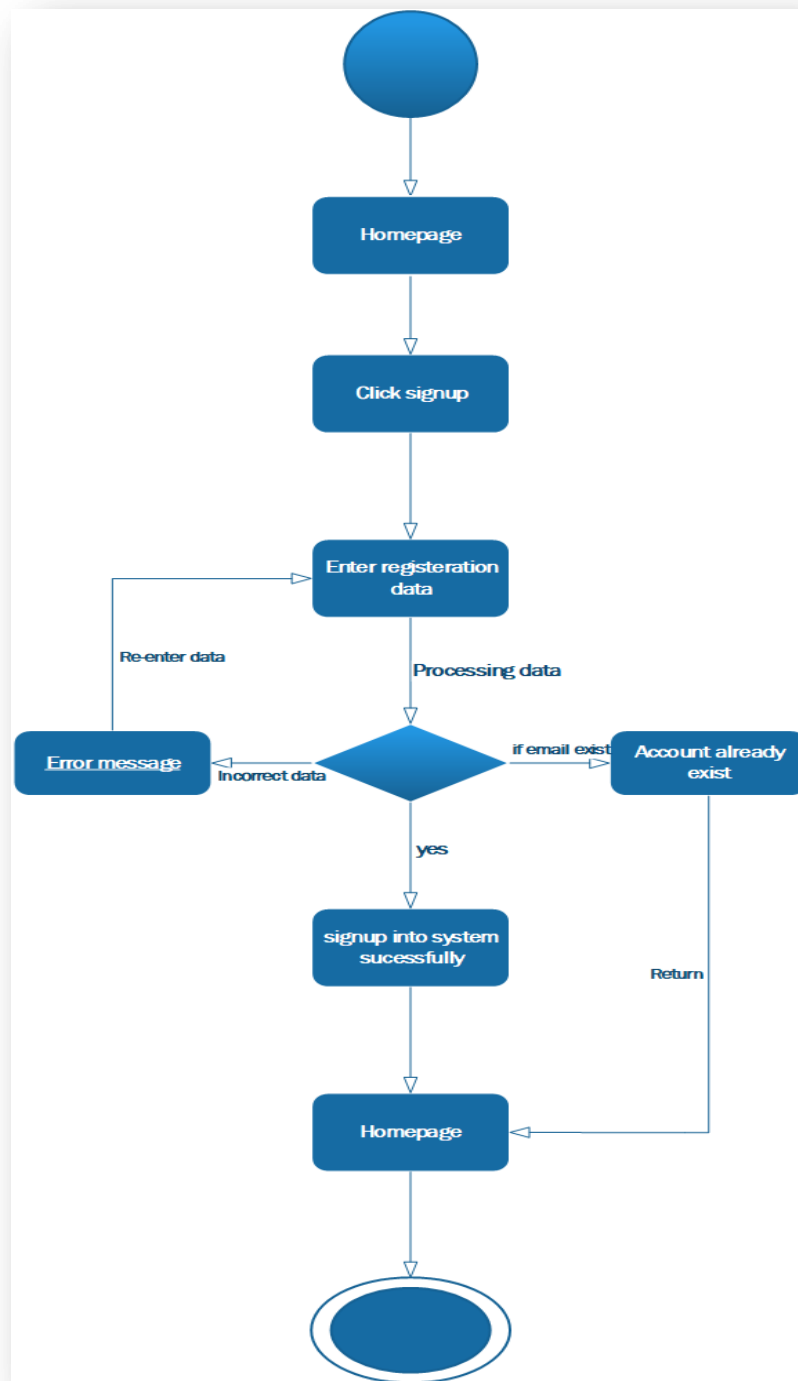


4.6. Activity Diagram:

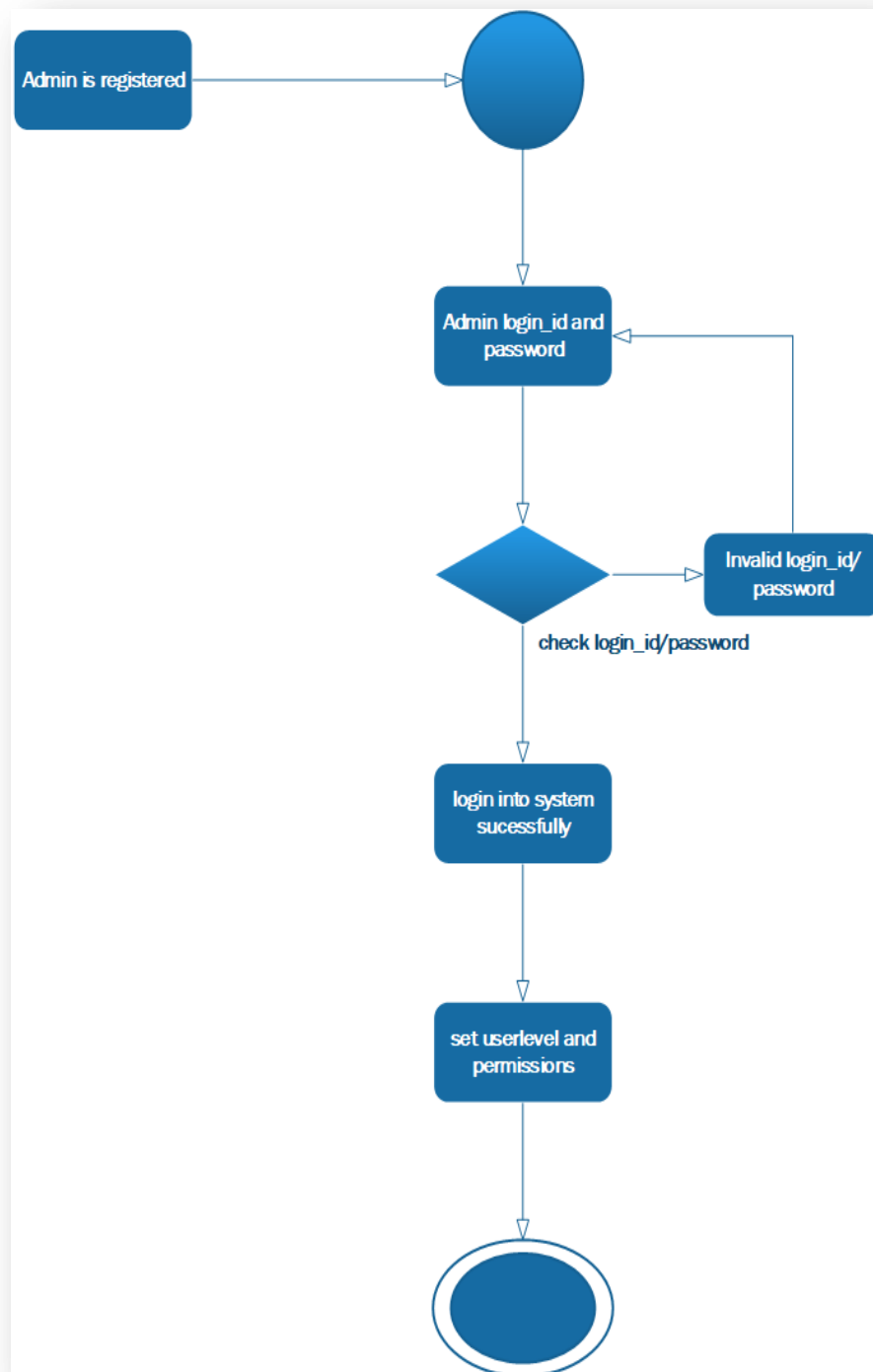
4.6.1. System Activity Diagram:



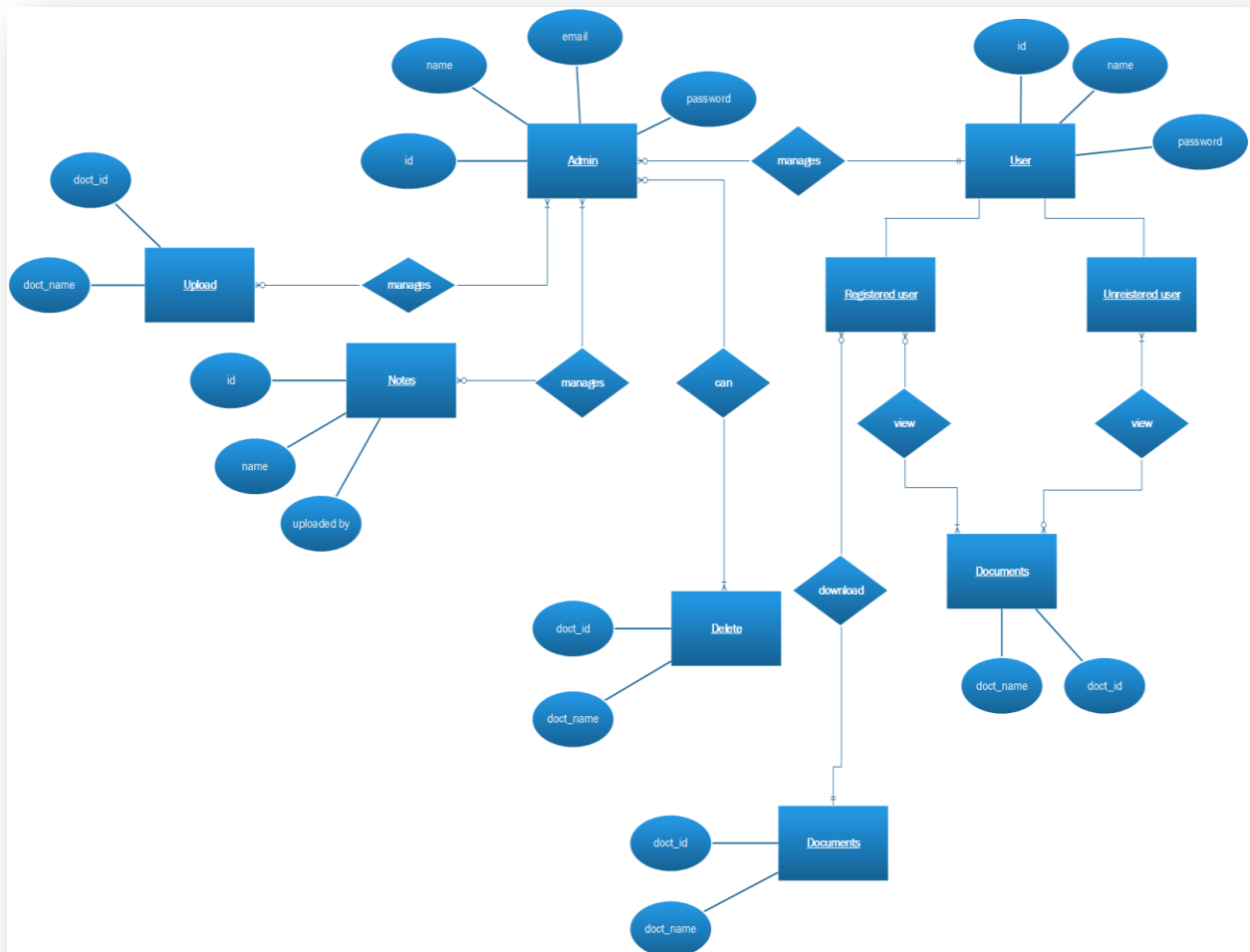
4.6.2. Create an account:



4.6.3. Login:

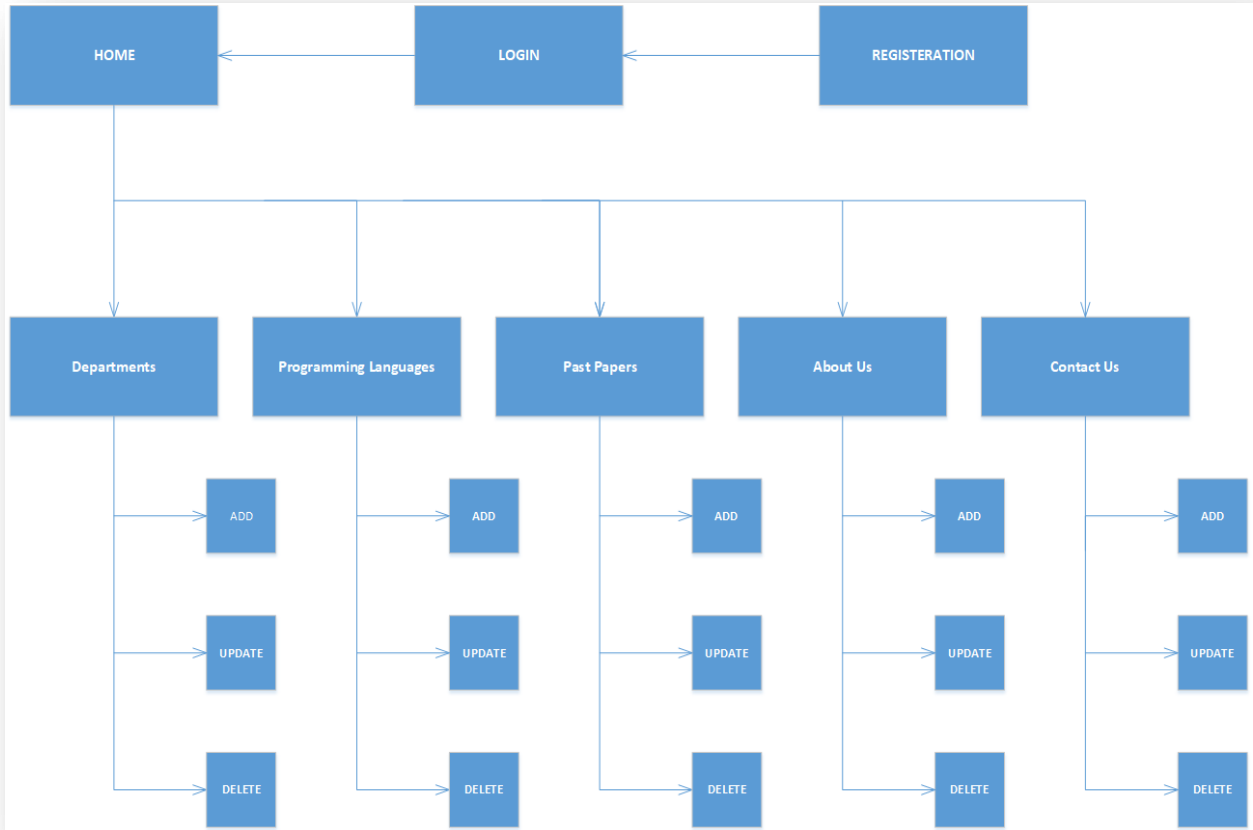


4.7. Entity Relationship Diagram:

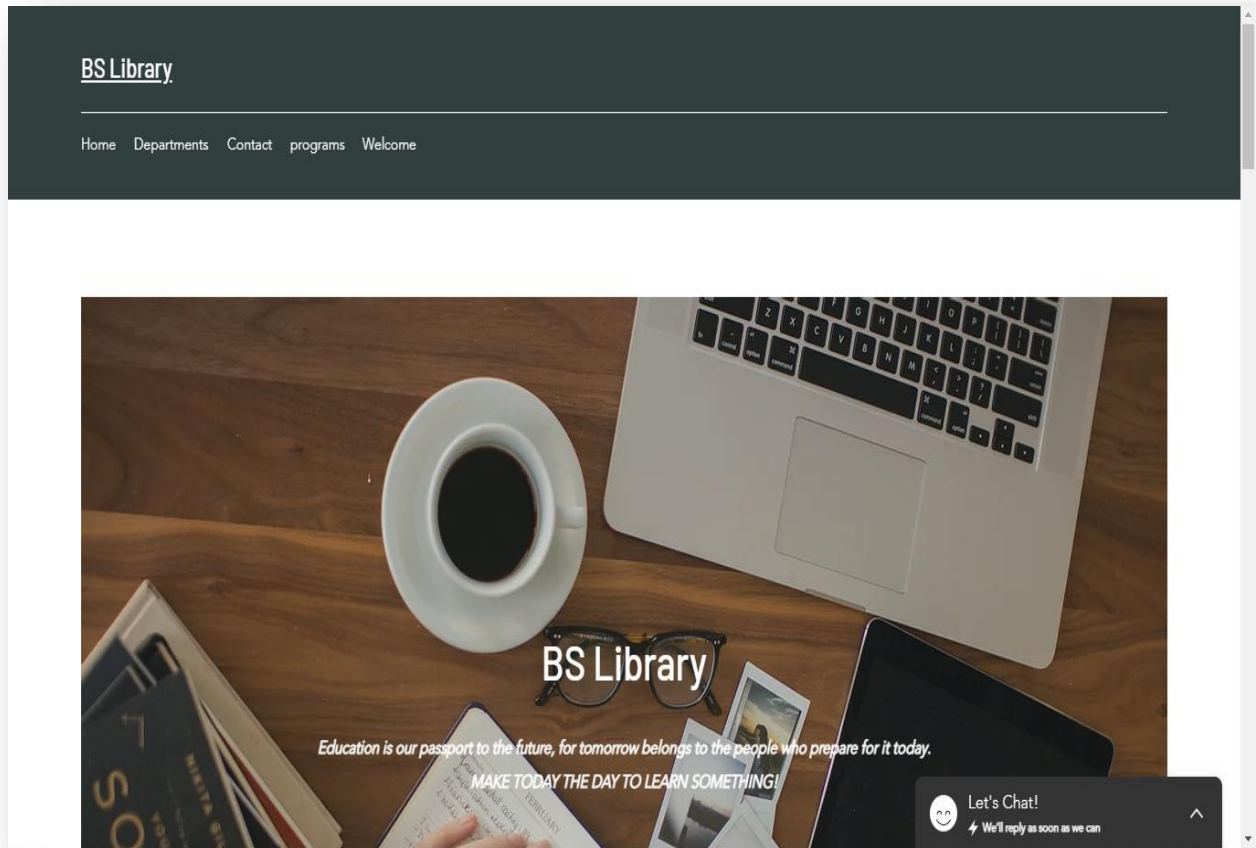


Chapter5: 4th Deliverable (User Interface Design)

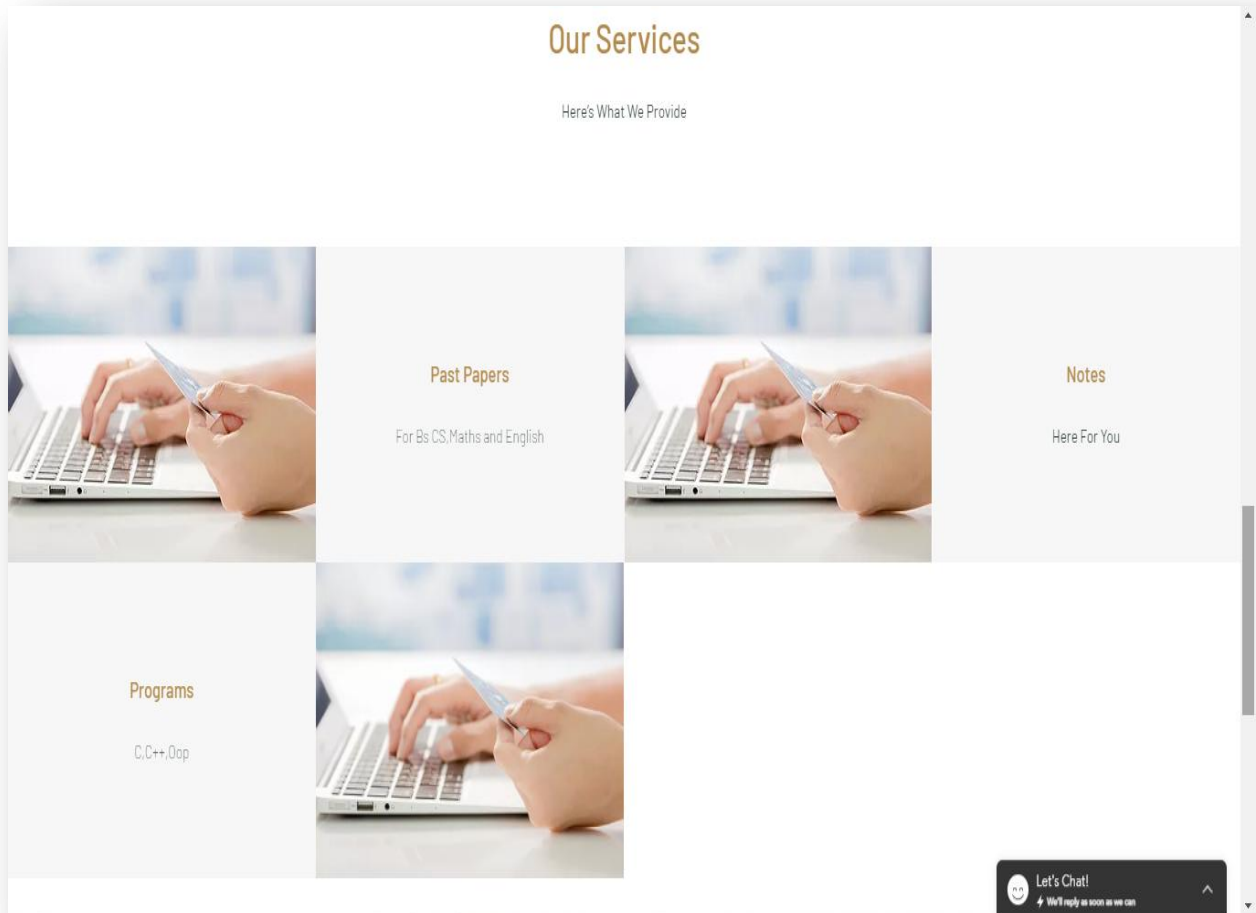
5.1. Site Map:



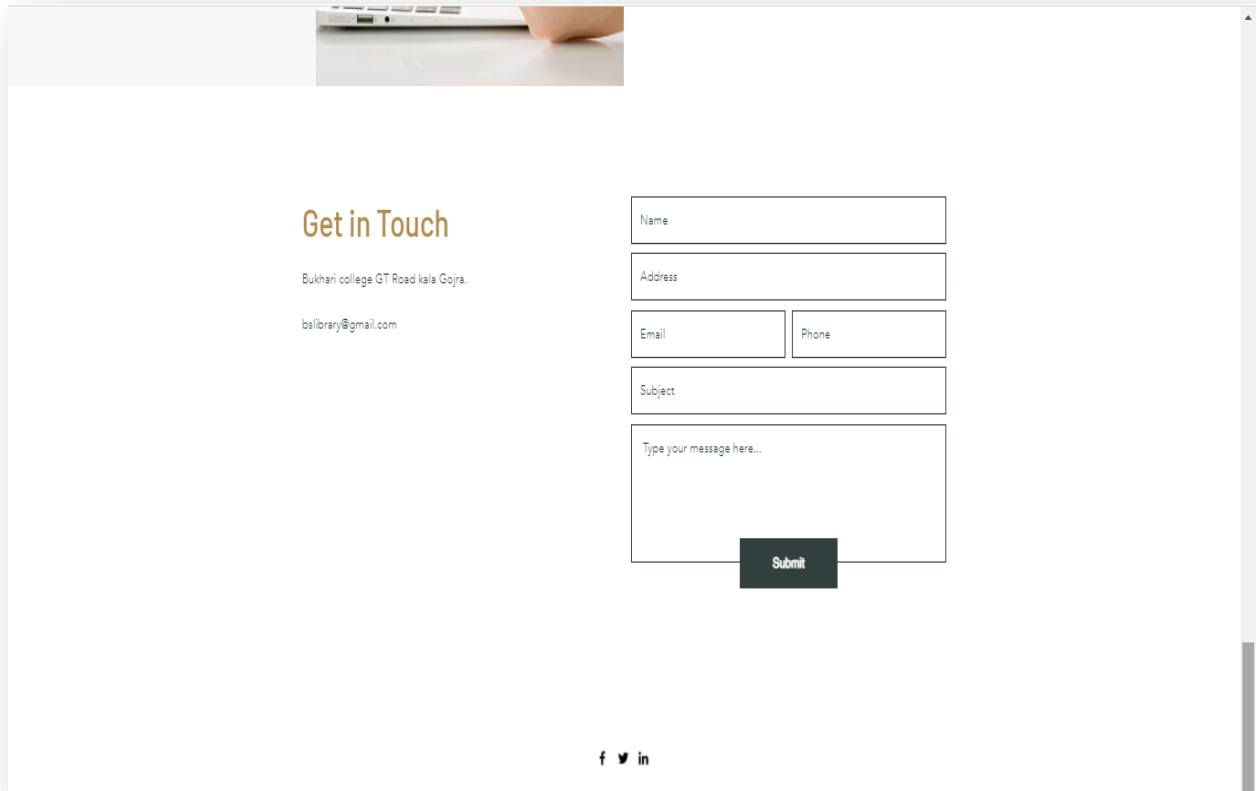
5.2. Front page:



5.3. Department button includes:



5.4. Login Page:



Get in Touch

Bukhari college GT Road kala Gojra.

bslibrary@gmail.com

Name

Address

Email Phone

Subject

Type your message here...

Submit

f t in

5.4. Trace-ability Matrix:

<u>Features</u>	<u>UC ID</u>	<u>UI ID</u>	<u>Priority</u>	<u>DB ID</u>	<u>Dependent classes</u>
Authentication	1	1	High	10	Connection.php
Authorization	1	1	High	10	Authentication
Signup	1	1	High	10	Authentication
login	2	2	High	10	Signup
Add new project	6	4	High	5	Login
Update project Information	6	5	low	5	Project added
View projects	6	6	low	5	Project added
Project approval Process	12	4	High	7	Added project
Project Assignment to managers	7	4	High	7	Added project
Add new tasks	8	4	High	8	Added project

Chapter 6: 5th Deliverable (Software Testing)

6.1. Introduction:

This deliverable is based on the IEEE standard of software testing. IEEE Software Testing is an internationally agreed. For software testing that can be used within any software development lifecycle. By implementing this standard, you will be adopting the only internationally-recognized agreed standards for software testing, which will provide your organization with a high-quality approach to testing that can be communicated throughout the world.

6.2. Test plan:

6.2.1. Purpose:

The test plan is a process to assist in creating an overall test plan for the project. This process does not address the creation of the specific test cases. The accepting should be involved in the risk assessment and test prioritization activities. It describes the scope, approach, resources, and schedule of the testing activities.

6.2.2. Outline:

A test plan shall have the following structure:

- Test plan identifier
- Introduction
- Test items
- Features to be tested
- Features not to be tested
- Approach
- Item pass/fail criteria
- Suspension criteria and resumption requirements
- Test deliverables
- Testing tasks
- Environmental needs
- Responsibilities
- Staffing and training needs
- Schedule
- Risks and contingencies
- Approvals

6.3. Test Plan Identifier:

This test plan is on “Online note sharing website”. Our purpose to design this project is that students can easily find data without wasting time. We will make sure to provide all type of related data which can be useful to students and obviously for teachers also. We will allow registered users to download relevant data for themselves.

6.4. Introduction:

This document is intended to give a complete planning of a systematic strategy for Online Note Sharing Website.

6.5. Test Items:

In this section we will provide a list of all those components that has been identified as test items. All of the items that constitute the "Online Note Sharing Website. Will be tested during the system test to insure that they work together to implement the user's requirements.

- Admin Login
- Manage Users
- Manage notes
- Edit notes
- Upload notes
- Delete notes

6.6. Features to be tested

<u>Test plane identifier:</u>	<u>1</u>
Introduction:	Sign Up system is used for authenticate users.
Test item:	Registration and login
Feature:	Authentication & authorization
Approach:	Enter user name, password, email, phone, address.
Result:	Pass

<u>Test plane identifier:</u>	<u>2</u>
Introduction:	Add or update information of website
Test item:	Add and update information
Feature:	Insertion & updating
Approach:	Enter by logging in.

<u>Test plane identifier:</u>	<u>3</u>
Introduction:	Add, delete, update information
Test item:	Add, delete and update information
Feature:	Addition, deletion and updating user

<u>Test plane identifier:</u>	<u>4</u>
Introduction:	Add user and update Add, delete, update user information
Test item:	Add, delete, and update information, user using form
Feature:	Addition, deleting and updating user
Approach:	Add user detail and update using form and delete button
Result:	Pass.

<u>Test plane identifier:</u>	<u>5</u>
Introduction:	Add, delete, update website information
Test item:	Add, delete, and update information
Feature:	Addition, deleting, and Updating of user accounts
Approach:	Add, delete, and Update using form and delete button
Result:	Pass.

<u>Test plane identifier</u>	<u>6</u>
Introduction:	Add, delete, update notes list
Test item:	Add, delete, and update information
Feature:	Addition, deleting and updating of notes type
Approach:	Add, delete, and update information type using form and delete button
Result:	Pass.

<u>Test plane identifier:</u>	<u>7</u>
Introduction:	Add, delete, update account
Test item:	Add, delete, and update information
Feature:	Addition, deleting, and updating of user info
Approach:	Add, delete, and update user using form and delete button
Result:	Pass.

<u>Test plane identifier:</u>	<u>8</u>
Introduction:	Add, delete, update mail details
Test item:	Add, delete and update login details
Feature:	Addition, deletion and updating
Approach:	Add, delete and update income using form and delete button
Result:	Pass.

<u>Test plane identifier:</u>	<u>9</u>
Introduction:	Add, delete, update user information
Test item:	Update past papers
Feature:	Answer queries

<u>Test plane identifier:</u>	<u>10</u>
Introduction:	Add account
Test item:	Addition and updating of user details
Feature:	Add and update of user details
Approach:	Adding and login details by clicking on Edit and add button.
Result:	Pass.

6.7. Approach:

We are following these test approaches which are given here under as:

- White Box Testing:**
 White box testing in which internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security.
- Black Box Testing:**
 Black box testing typically involves running through every possible input to verify that it results in the right outputs using the software as an end-user would.
- Unit Testing:**
 Unit testing is a testing which requires the developer to test on every single part or component in the system. Unit testing can be kind of time consuming testing since the

tester will need to go through every single component to make sure no bugs or errors occur before the deployment.

- **Integration Testing:**

The purpose of the integration testing is to make sure that there are no defects during the integration of multiple pages or modules.

- **System Testing:**

The purpose of system testing is to test the whole application after it is considered completed. System testing is a very important testing since it requires the system to meet the requirements and quality set by the users.

- **Acceptance Testing:**

Acceptance testing will involve the outsider to test the system in order to find out if the system meets their requirements from all perspectives.

6.8. User Interface Testing:

User Interface (UI) testing verifies a user's interaction with the software. The goal of UI testing is to ensure that the UI provides the user with the appropriate access and navigation through the function of the target-of-test. In addition, UI testing ensures that the objects within the UI function as expected and conform to corporate or industry standards.

6.9. Item pass/fail criteria:

The criteria's for each phase of testing must be met before then next phase can commence. The criteria's for pass and failure is given below.

- According to the given scenario the expected result need to take place then the scenario will be considered as pass otherwise that criteria should be failed.
- If an item tested 10 times, 9 times perfectly worked and single time do not work properly then it will consider as fail case.
- System crash will be considered as fail case.
- After submitting a query in the system, if expected page won't appear then it will be considered as fail case.

6.10. Risk and contingencies:

<u>Sr no.</u>	<u>Risk List</u>	<u>Contingencies Plan</u>
1	Data can be destroy	Data can recover thorough the software.
2	Unauthorized access	Use the security process to make the system secure.
3	Hardware can be destroy	Use affecting protections to secure the hardware.
4	System might be slow	Use boost up clears for the fast speed.

6.11. Approvals:

The test plan will be approved by the whole team.

Signature: _____

Date: _____

Print Name: _____

Title: _____

Role: _____



Signature: _____

Date: _____

Print Name: _____

Title: _____

Role: _____



Signature: _____

Date: _____

Print Name: _____

Title: _____

Role: _____

