Design engineering 2b Project APPROVAL Certificate

The project entitled

"Student Study Center Management"

Submitted by

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at

GIDC DEGREE ENGINEERING COLLEGE,ABRAMA (110)

Bachelor of Engineering

in

Computer Engineering

by

Gujarat Technological University.

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GUJARAT TECHNOLOGICAL UNIVERSITY

(GTU)

GIDC Degree Engineering College, Abrama, Navsari

Affiliated with GTU

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Head of the Department

Academic year
(2022-23)

GIDC DEGREE ENGINEERING COLLEGE

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Computer Engineering Department

2022-23

CERTIFICATE

This is to certify that Patel Karan B. (201100107062), Khalasi Yash B. (201100107001), Patel Karan K. (201100107036), Patel Ritikkumar P. (201100107038),Patel Renil R. (201100107023) of Third Year Computer Engineering has satisfactorily completed there Design Engineering-2B Preliminary work for the term – January 2023 to May 2023.

TITLE: Student Study Center Management

GROUP ID: 424859

DATE:

FACULTY GUIDE **HEAD OF DEPARTMENT**

ACKNOWLEDGEMENT

This satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people whose guidance made it possible, whose constant guidance and encouragement made it successful.

We are grateful to our project guide **Prof. Mihir A Mishra** for the guidance, inspiration, and constructive suggestions that help us in the preparation of this project.

We would also like to express our gratitude towards our Head of the Department **Prof. Archana M. Nayak** of **GIDC Degree Engineering College** for their valuable guidance and encouragement for making this project successfully completed well within time.

ABSTRACT

The project aims to develop a Student Study Center Management System (SSCMS) to address the challenges faced by educational institutions in effectively managing and organizing study center operations. Through careful observation and analysis of existing systems and processes, it has become evident that manual paperwork, fragmented data, and lack of automation result in inefficiencies and hinder the optimal utilization of study center resources. The proposed SSCMS will provide a comprehensive and user-friendly platform to centralize and automate study center management, including resource scheduling, student registration, progress tracking, and communication. By streamlining these processes, SSCMS will optimize resource utilization, improve student engagement, and facilitate effective communication among students, faculty members, and administrators. This project aims to revolutionize study center management, addressing limitations and empowering educational institutions to provide a more effective and streamlined study center experience for students.

Purpose:

The purpose of the Student Study Center Management System (SSCMS) is to provide educational institutions with a centralized platform that effectively manages and organizes study center operations. SSCMS aims to address the challenges faced by institutions in resource scheduling, student registration, progress tracking, and communication within study centers. By replacing manual processes and fragmented data, SSCMS aims to optimize resource utilization, enhance student engagement, and facilitate seamless communication among students, faculty, and administrators. The system's purpose is to revolutionize study center management, improving operational efficiency, student success, and overall satisfaction within the study center environment.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER 1

Introduction to Concept / Idea

1.1 Introduction
1.2 What is design Thinking
1.3 Problem Summary
1.4 Objective of Project

1.1 Introduction

Patel Karan Bakulbhai

Khalasi Yash Bhupendrakumar

Patel Karan Kanti

Patel Ritikkumar Prakashkumar

Patel Renil Ramanbhai

We are students of GIDC Degree Engg. College Navsari of Computer Engineering of 3rd year. We all are interested doing paperwork, making application & find solution of problem. We like to innovate something new which will make people’s life easier. We are working very hard for make our project best. We all are very hard working and work in unity.

Name of Guide : Prof. Mihir A Mishra

We are grateful to our project guide Prof. Archana M. Nayak for the guidance, inspiration, and constructive suggestion that helpful us in the preparation of this project.

1.2 What is Design Thinking

"Innovation & Design Thinking" will allow students to develop basic skills in creative problem solving, innovation, and human-centered "design thinking." Innovation has become increasingly important because of the rapid evolution in products and business models and the ever more complicated world in which businesses and organizations operate. The course focuses on the manager's or leader's role as an innovator and facilitator of innovation by others.

As future managers, these skills also include the ability to identify innovative individuals, form innovative teams, and build innovative cultures within organizations**.** The course takes the view that innovative problem solving and design thinking can be learned through repeated practice. Students will engage in exercises, projects, and reflections to explore various methods and approaches to innovative problem solving and design thinking. The course will introduce a variety of tools and techniques (“props”) that, with repeated use, will help students think more expansively, creatively, and effectively through all phases of an innovation project.

1.3 Problem Summary

The existing system for managing study centers in educational institutions is inefficient and time-consuming. Administrators struggle with desk allocation, student registrations, attendance tracking, and study session scheduling. Students face difficulties in staying organized and maximizing their study time and resources. The absence of a centralized system hampers resource allocation and creates a disorganized learning environment. There is a clear need for a solution that simplifies administrative tasks, enhances student engagement, and promotes efficient study habits. The Student Study Center Management System (SSCMS) addresses these challenges by providing a centralized platform for streamlined management and improved study center operations.

1.4 Objective

1. Proper Desk Management.
2. Attendance tracking System.
3. Enhance Administrative Productivity.

CHAPTER 2

Design for Safety Performance and Reliability

2.1 Designs for Performance
2.2 Designs for Safety
2.3 Designs for Reliability

2.1 Designs for Performance

2.1.1 Product Development Canvas

This canvas consists of product development details. They are as follow:

Purpose

It refers to the purpose of the concept that we are developing.

- Student Study Center Management.

People

They are the key customer segment who will use this product/ service or the end product of the concept we are pursuing.

- Study Center Managers and Administrators.

Product experience

This refers to what the consumers feel when they use the product or service.

- Optimized
- Enhanced Productivity
- Easy to use and user friendly

Product functions

Functions are the product’s answers to user’s problems/needs. They do something that user wants. The functions required in our device are:

- Efficient Desk Management
- Enable students to reserve desks.
- Store and manage student details.
- Store Attendance details.

Product features

Product features are specific. One or more features will power a function. The features required in our product are:

- Student Management
- Communication Tools
- Desk management
- Dashboard
- Database Management

Components

Components built up the features. They are the can be major components or the auxiliary (additional) components that make the major components work. The components required are:

- Laptop
- Router
- Smartphone
- Data base
- Keyboard
- User authentication
- Server/cloud
- Web Application

Customer revalidation

Customer revalidation means testing with the customer or user that whether the product is useful.

- Desk Management Efficiency
- User Friendly Student Management
- Administrative Productivity enhancement

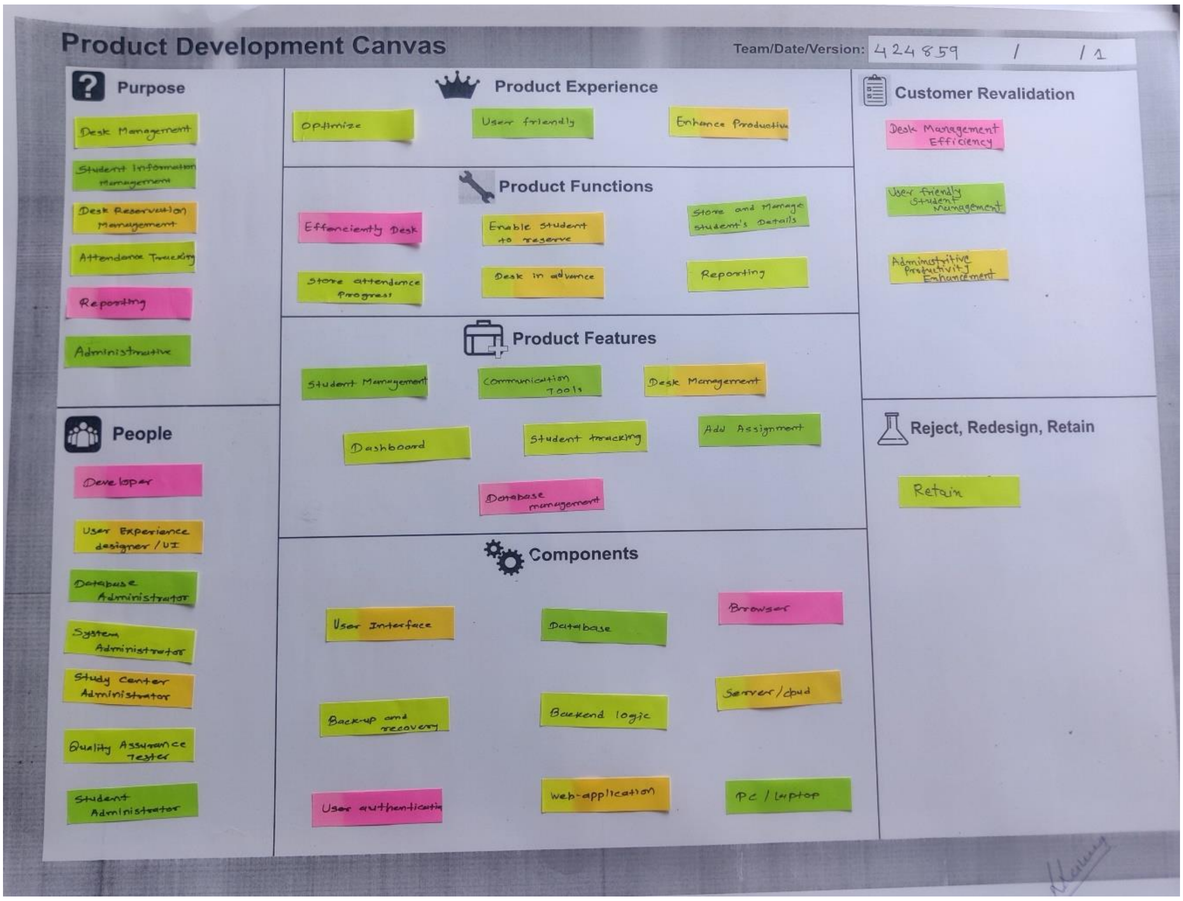
Reject, redesign, retain

Rejection of those features or functions that customers didn’t find useful. Redesigning those that were partially useful and retaining those that met the bar.

Reject: According to the Users the features are very common and are available on different applications.

Redesign: We will work on the errors and the issues faced by the user and modify it so as to make our product efficient and user friendly.

Retain: All the futures of our product which received positive feedback and were liked by the users are retained.



Product Development Canvas

Team/Date/Version: 424859 / / 1

Purpose

- Desk Management
- Student Information Management
- Desk Reservation Management
- Attendance Tracking
- Reporting
- Administrative

People

- Developer
- User Experience designer / UI
- Database Administrator
- System Administrator
- Study Center Administrator
- Quality Assurance Tester
- Student Administrator

Product Experience

- Optimize
- User friendly
- Enhance Productive

Product Functions

- Effenciently Desk
- Enable student to reserve
- Store and Manage student's Details
- Store attendance Progress
- Desk in advance
- Reporting

Product Features

- Student Management
- Communication Tools
- Desk Management
- Dashboard
- Student tracking
- Add Assignment
- Database management

Components

- User Interface
- Database
- Browser
- Back-up and recovery
- Backend logic
- Server/cloud
- User authenticatio
- web-application
- PC / laptop

Customer Revalidation

- Desk Management Efficiency
- User friendly Student Management
- Administritive Productivity Enhancement

Reject, Redesign, Retain

- Retain

Figure:2.1 Product Development Canvas

2.2 Designs for Safety

2.2.1 Ideation Canvas

People

- Developer
- Admin
- Database Administrator
- System Administrator
- Staff
- Support
- Quality Assurance tester
- User Experience designer
- Teacher

Activities

- Brain Storming Sessions

- Coding
- Prototyping
- User research
- Idea Generation
- Navigating
- Reading
- Testing
- Developing

Situation/content/location:

- What/When: When a new study center is being established.

Why: To implement an efficient system for desk management, student information management, and resource allocation from the start.
Where: The SSCMS is implemented at the study center's location.

- What/When: When there is a significant increase in student enrollment at the study center.
  Why: To handle the growing number of students and effectively manage desk assignments, student records, and resource availability.
  Where: The SSCMS is utilized within the study center premises and accessible to administrators, staff, and students.

- What/When: When there is a significant increase in student enrollment at the study center.
  Why: To handle the growing number of students and effectively manage desk assignments, student records, and resource availability.
  Where: The SSCMS is utilized within the study center premises and accessible to administrators, staff, and students.

- What/When: When there is a significant increase in student enrollment at the study center.
  Why: To handle the growing number of students and effectively manage desk assignments, student records, and resource availability.
  Where: The SSCMS is utilized within the study center premises and accessible to administrators, staff, and students.

Props/Tools/objects/Equipment:

- Web Application
- Proper Management System
- Server
- Mobile

- Computer

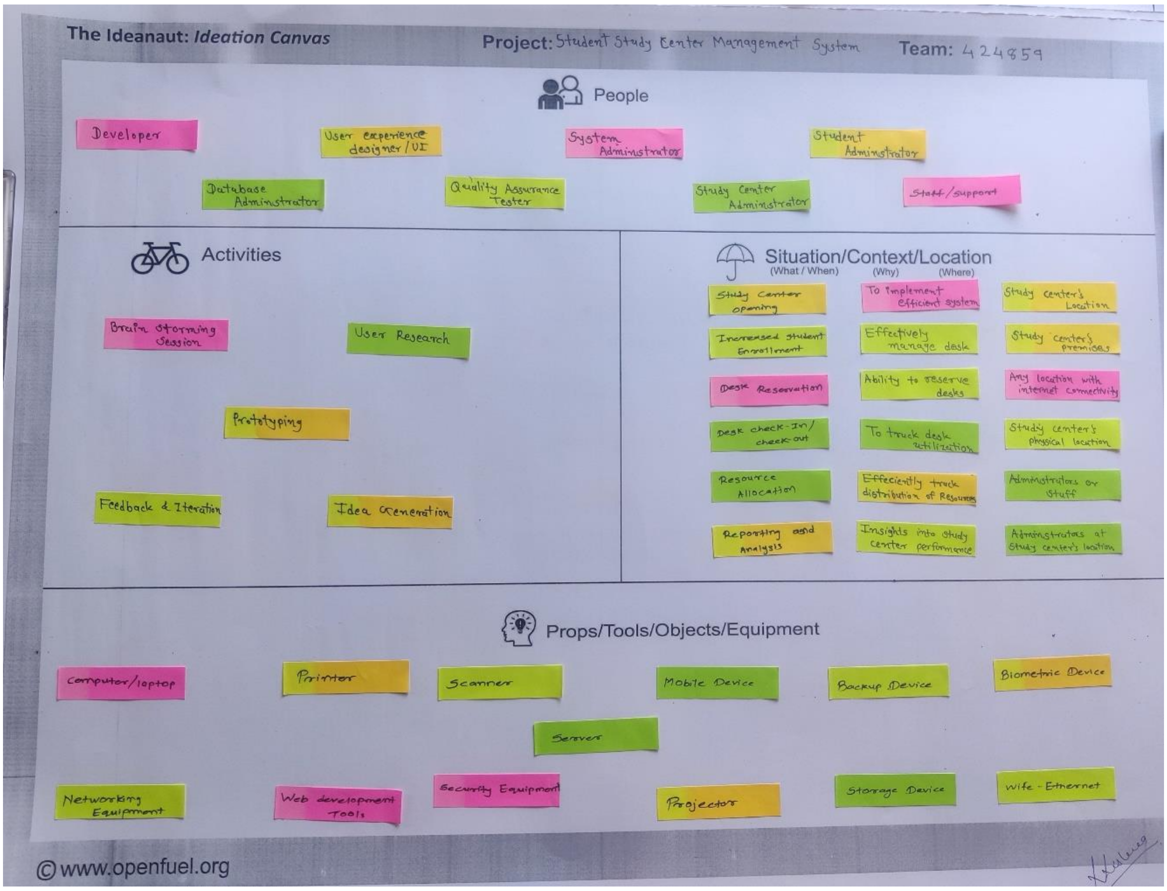


Figure 2.2: Ideation Canvas

2.2.2 Empathy Canvas

Users

Users are the people who belong to the domain that we have selected and they are the ones who face problems in that domain. The users that we have included are:

- Admins
- Librarians
- Students
- Instructors
- Teachers

Stakeholders

Stakeholders are the people who are directly or indirectly affected by the domain, problem and the solution of the problem. They are the ones who get profit or loss from the domain.

- Study Center Administrator
- External Auditors
- System Supports

- Maintenance staff
- Instructors

Activities

Activities are the various tasks which are done by the users. These affect the domain.

- Desk Availability Tracking
- Desk Management
- Admin Registration
- Attendance Tracking
- Reporting
- Student Management

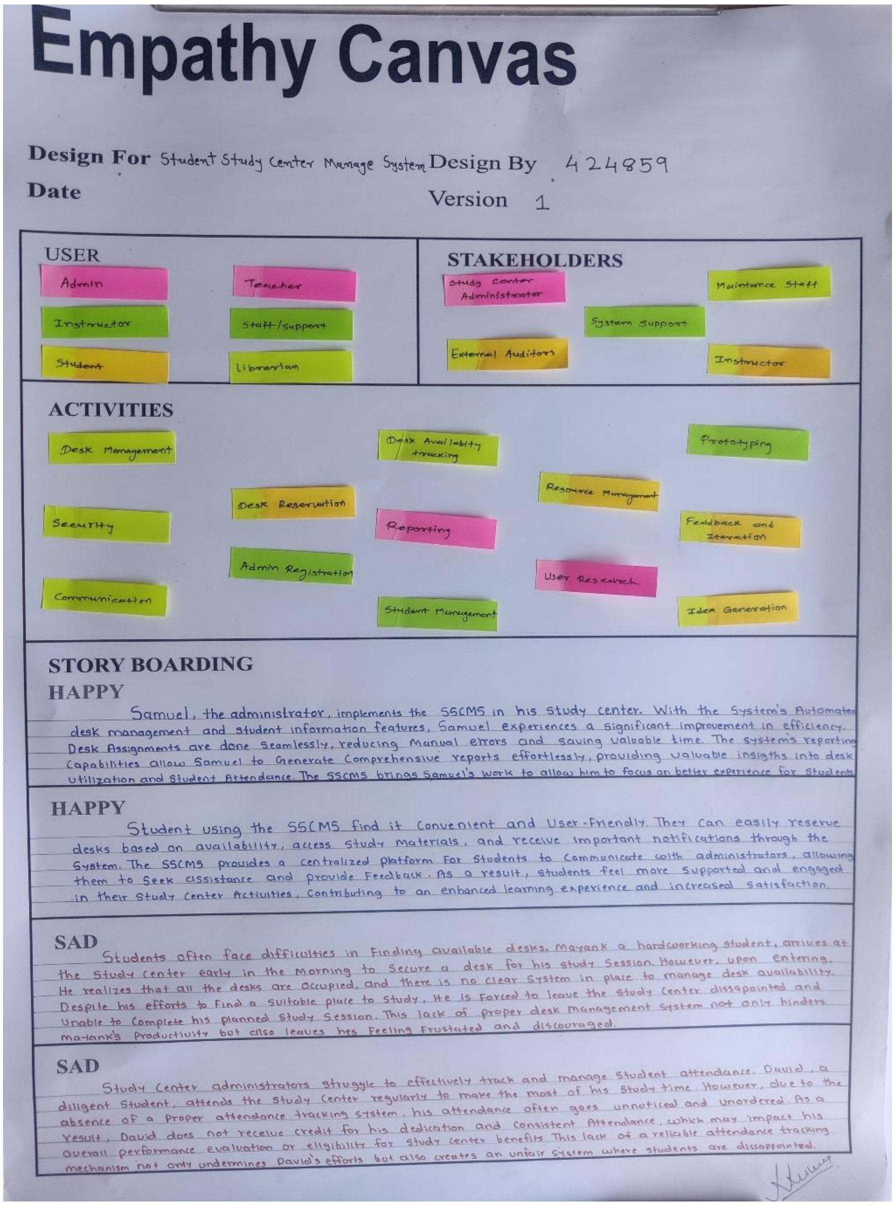
Story Boarding

- **Happy story-1**
  Samuel, the administrator, implements the SSCMS in his study center. With the system's automated desk management and student information features, Samuel experiences a significant improvement in efficiency. Desk assignments are done seamlessly, reducing manual errors and saving valuable time. The system's reporting capabilities allow Samuel to generate comprehensive reports effortlessly, providing valuable insights into desk utilization and student attendance. The SSCMS brings a sense of ease and efficiency to Samuel’s work, allowing her to focus more on providing a better study center experience for students.
- **Happy story-2**
  Students using the SSCMS find it convenient and user-friendly. They can easily reserve desks based on availability, access study materials, and receive important notifications through the system. The SSCMS provides a centralized platform for students to communicate with administrators, allowing them to seek assistance and provide feedback. As a result, students feel more supported and engaged in their study center activities, contributing to an enhanced learning experience and increased satisfaction.
- **Sad story-1**

  Students often face difficulties in finding available desks. Mayank, a hardworking student, arrives at the study center early in the morning to secure a desk for his study session. However, upon entering, she realizes that all the desks are occupied, and there is no clear system in place to manage desk availability. Despite his efforts to find a suitable place to study, he is forced to leave the study center disappointed and unable to complete his planned study session. This lack of a proper desk management system not only hinders Mayank’s productivity but also leaves his feeling frustrated and discouraged.

  Sad story-2

Study center administrators struggle to effectively track and manage student attendance. David, a diligent student, attends the study center regularly to make the most of his study time. However, due to the absence of a proper attendance tracking system, his attendance often goes unnoticed and unrecorded. As a result, David does not receive credit for his dedication and consistent attendance, which may impact his overall performance evaluation or eligibility for study center benefits. This lack of a reliable attendance tracking mechanism not only undermines David's efforts but also creates an unfair system where students' dedication and commitment are not appropriately recognized or rewarded.



Empathy Canvas

Design For Student Study Center Manage System **Design By** 424859

Date

Version 1

USER

Admin
Teacher
Instructor
staff/support
Student
Librarian

STAKEHOLDERS

study center Administrator
Maintance staff
System support
External Auditors
Instructor

ACTIVITIES

Desk Management
Desk Availabity tracking
Prototyping
Resource Management
Desk Reservation
Security
Reporting
Feedback and Iteration
Admin Registration
User Research
Communication
Student Management
Idea Generation

STORY BOARDING

HAPPY

Samuel, the administrator, implements the SSCMS in his study center. With the System's Automated desk management and student information features, Samuel experiences a significant improvement in efficiency. Desk Assignments are done seamlessly, reducing Manual errors and saving valuable time. The system's reporting Capabilities allow Samuel to Generate Comprehensive reports effortlessly, providing valuable insigths into desk utilization and Student Attendance. The SSCMS brings Samuel's work to allow him to focus on better experience for students

HAPPY

Student using the SSCMS find it Convenient and User-Friendly. They can easily reserve desks based on availability, access study Materials, and receive important notifications through the System. The SSCMS provides a centralized platform For Students to Communicate with administrators, allowing them to Seek assistance and provide Feedback. As a result, students feel more supported and engaged in their Study Center Activities, Contributing to an enhanced learning experience and increased satisfaction.

SAD

Students often face difficulties in Finding available desks. Mayank a hardworking student, arrives at the Study center early in the Morning to Secure a desk for his study Session. However, upon entering, He realizes that all the desks are Occupied, and there is no clear System in place to manage desk availability. Despite his efforts to Find a suitable place to Study, He is Forced to leave the study Center dissapointed and Unable to Complete his planned Study Session. This lack of proper desk management system not only hinders Mayank's Productivity but also leaves hes Feeling Frustated and discouraged.

SAD

Study Center administrators struggle to effectively track and manage Student attendance. David, a diligent Student, attends the study Center regularly to make the most of his Study time. However, due to the absence of a Proper attendance tracking system, his attendance often goes unnoticed and Unordered. As a result, David does not receive credit for his dedication and Consistent Attendance, which may impact his overall performance evaluation or eligibility for study center benefits. This lack of a reliable attendance tracking mechanism not only undermines David's efforts but also creates an unfair System where students are dissappointed.

Figure 2.3: Empathy Canvas

2.3 Designs for Reliability

Reliability is the ability of a system or component to perform its required functions under stated conditions for a specified period of time1. Your final product/process should be reliable as required by the user and should perform its desired functions as required for desired time period.

CHAPTER 3

Design for Ergonomics and Aesthetics

3.1 Ergonomics
3.2 Aesthetics

3.1 Ergonomics

Ergonomics is all about designing for human factors/comforts wherever they interact with product/process and surrounding environments. According to the **International Ergonomics Association** within the discipline of ergonomics there exist domains of specialization:

(a) **Physical Ergonomics** – is concerned with the human anatomy, bio mechanical and physiological ability and its relevance to the product and surrounding systems;

(b) **Cognitive Ergonomics** – is concerned with the mental ability such as perception, memory, reasoning and response power as they affect the interactions between humans and products/systems;

(c) **Organizational Ergonomics** – is concerned with the optimization of socio-technical systems including organizational structures, policies and processes.

3.2 Aesthetics

Aesthetics is all about designing for physical appearance (looks) of the product. In current time, customers are willing to buy the products which have stunning looks with respect to their competitive products. Design for Aesthetics includes appearance, style, color, form/shape, visuals and so on.

CHAPTER 4

Design for Manufacturability & Assembly (DFMA)

4.1 Literature review / Prior Art Search

In order to conduct a prior art search for SSCMS, it is important to search for existing systems, patents, publications, or any other relevant sources that may disclose similar or related concepts or functionalities. The purpose of this search is to determine if there are prior inventions or solutions that already exist in the field of student study center management systems. Here are the steps you can follow:

Patent Databases: Search through patent databases such as the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), and WIPO Patent Database to find any granted or pending patents related to student study center management systems. Use relevant keywords such as "student study center management," "study center administration," "desk management," "attendance tracking," and "student management."

Academic Databases: Explore academic databases like IEEE Xplore, ACM Digital Library, and Google Scholar to find research papers, conference proceedings, and articles related to student study center management systems. Look for publications that discuss similar functionalities or highlight challenges and solutions in managing study centers, desks, students, attendance, and scheduling.

Online Search Engines: Perform a comprehensive search using popular search engines like Google, Bing, or Yahoo. Use specific keywords such as "student study center management system," "study center software," "desk management solution," "attendance tracking system," and "student management system." Analyze the search results and review relevant websites, blogs, forums, and online discussions related to the topic.

Existing Systems: Explore existing software solutions or platforms specifically designed for managing study centers, student administration, or learning management systems. Visit their websites, review their features and functionalities, and compare them to the proposed SSCMS project. Note any similarities or differences.

Trade Journals and Magazines: Check trade journals, industry magazines, and publications related to education technology, e-learning, or school management systems. Look for articles, case studies, or product reviews that may mention or discuss student study center management systems or related topics.

Consult Experts: Reach out to professionals, educators, or individuals with expertise in the field of education technology or school administration. Discuss the concept of SSCMS and seek their insights or knowledge regarding existing systems or prior art in the domain.

4.2 AEIOU Framework

A-Activities:

- Security
- Communication
- Reporting
- Desk Reservation

- Student Management
- Admin Registration

E-Environment:

- Reading Time
- Exam Time
- Assignment
- Crowded
- Silence

I-Interactions:

General impressions/observations

- Student-Admin Interaction
- Admin-Management Interaction
- Student-Student Interaction
- Help and support
- Notification and Reminder

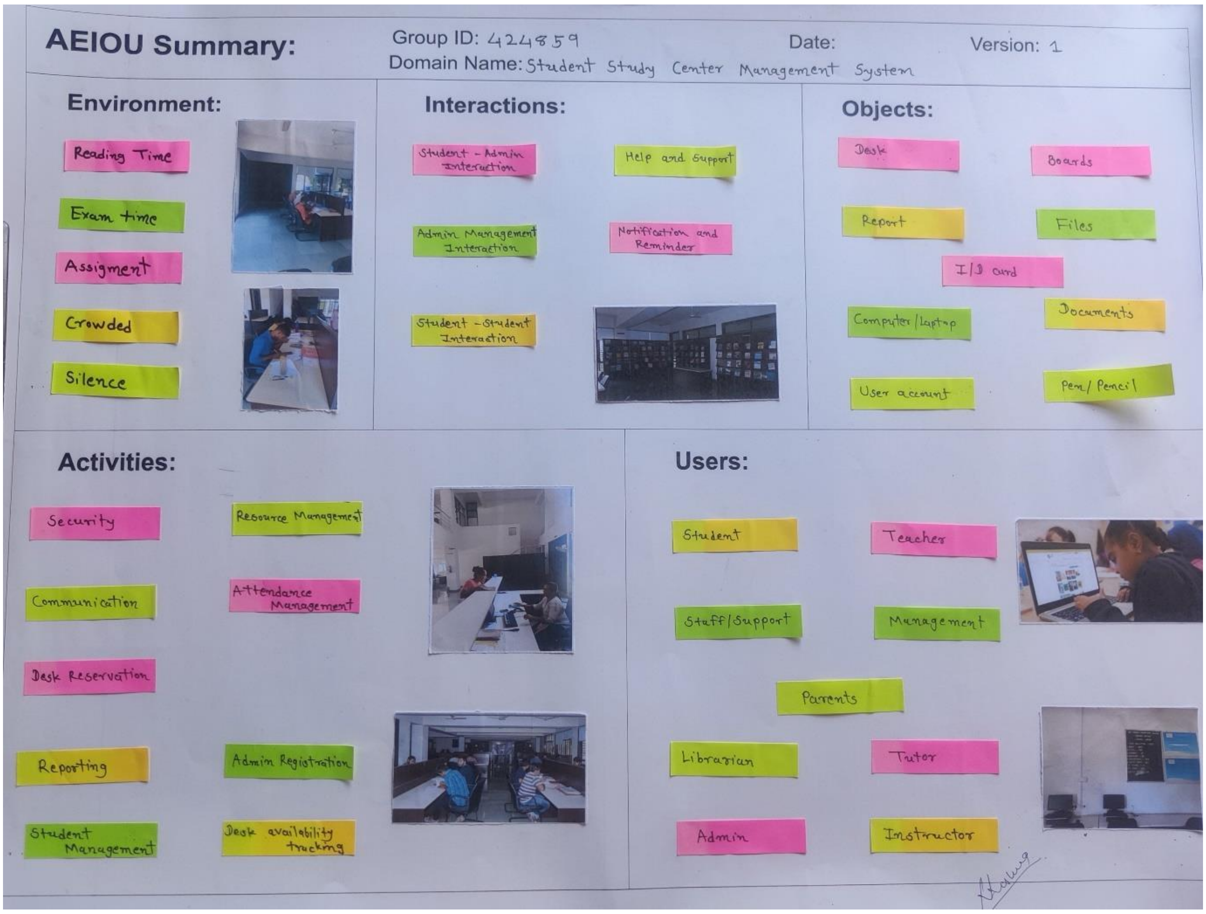
O – Objects:

General impressions/Observations:

- Desks
- Boards
- Reports
- Files
- ID card
- Documents
- Computer/Laptop
- Pen

U –Users:

- Student
- Teacher
- Staff Support
- Parents
- Teacher
- Librarian
- Tutor
- Admin
- Instructor



AEIOU Summary: Group ID: 424859 Date: Version: 1

Domain Name: Student Study Center Management System

Environment:

Reading Time

Exam time

Assigment

Crowded

Silence

Interactions:

Student - Admin Interaction

Help and Support

Admin Management Interaction

Notification and Reminder

Student - Student Interaction

Objects:

Desk

Boards

Report

Files

I/D card

Computer/laptop

Documents

User account

Pen/Pencil

Activities:

Security

Resource Management

Communication

Attendance Management

Desk Reservation

Reporting

Admin Registration

Student Management

Desk availability tracking

Users:

Student

Teacher

Staff/Support

Management

Parents

Librarian

Tutor

Admin

Instructor

Fig4.6 AEIOU

4.3 Mind Mapping

Mind mapping helps you to release all of the ideas in your head and gives you the opportunity to see those ideas visually. It is a fast and simple way to get your creative juices flowing, and the only tools you need are a pen or pencil and your design notebook.

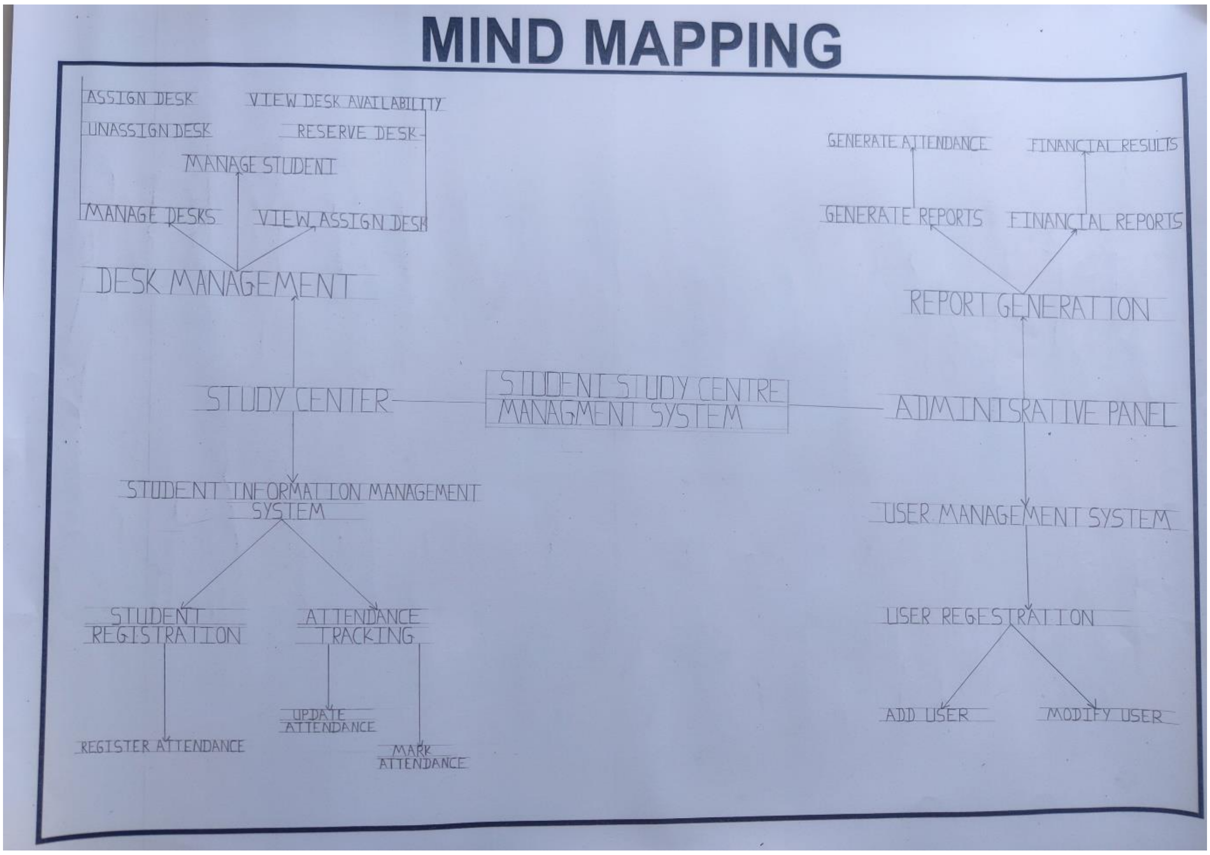


Fig : 4.7 Mind Map

4.4 Learning Need Matrix (LNM)

LNM – Learning Needs Matrix will help us to identify the learning requirements at an early stage along with prioritization of specific learning along with defined time duration/ time allocation for each.

Identification will be focused with listing out Syllabus based and out of syllabus learning & skill development

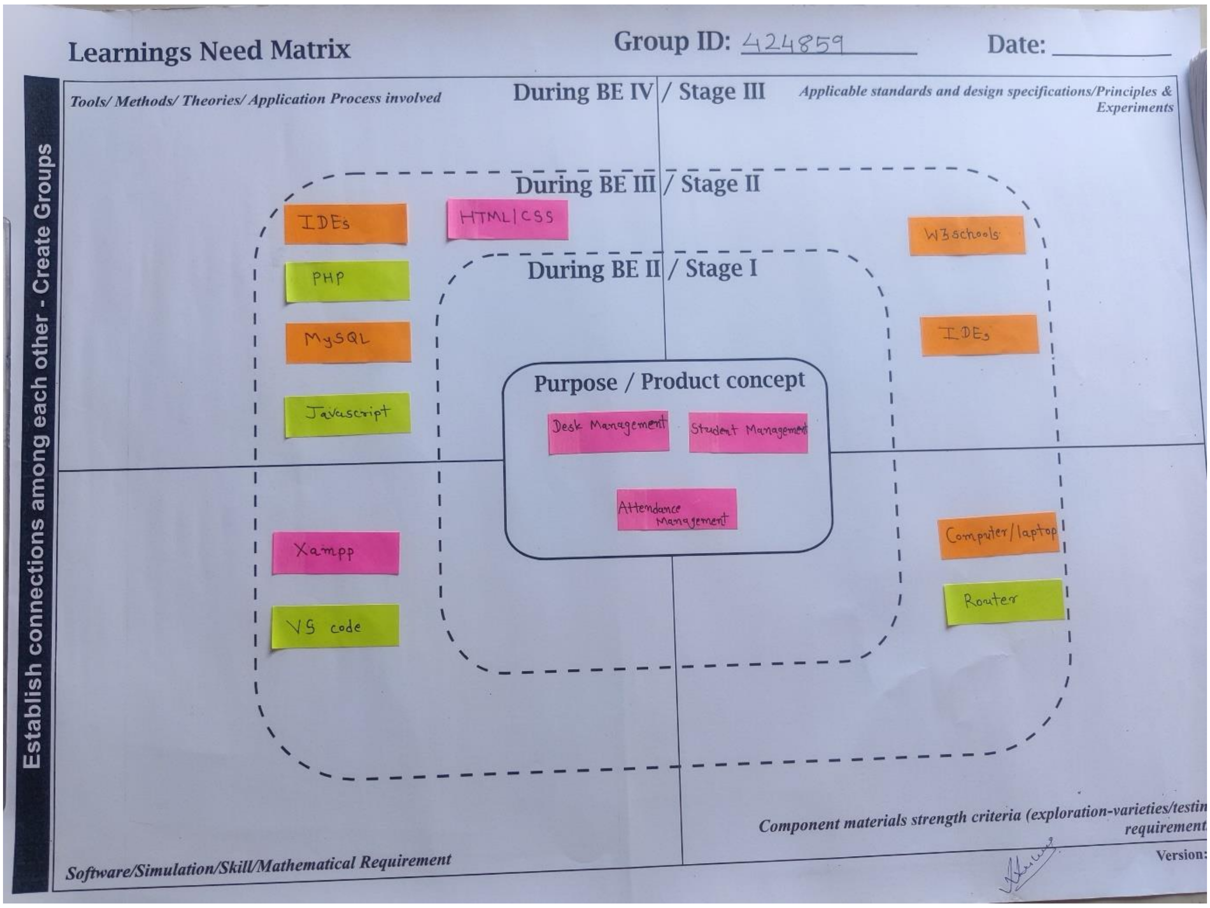

Learnings Need Matrix
Group ID: 424859
Date:
Establish connections among each other - Create Groups
Tools/ Methods/ Theories/ Application Process involved
During BE IV / Stage III
Applicable standards and design specifications/Principles & Experiments
During BE III / Stage II
During BE II / Stage I
IDEs
HTML/CSS
PHP
MySQL
Javascript
W3schools
IDEs
Purpose / Product concept
Desk Management
Student Management
Attendance Management
Xampp
VS code
Computer/laptop
Router
Component materials strength criteria (exploration-varieties/testin requirement
Software/Simulation/Skill/Mathematical Requirement
Version:

Fig 4.8: LNM

CHAPTER 5

Design Engineering Economics of Design

5.1 Cost Estimation

5.1.1 Hardware Estimation

Sr.No	Hardware Requirement	Estimate cost
1	Computer	40000-70000
2	Router	5000-10000

5.1.2 Software Estimation

Sr.No	Software Requirement	Estimate Cost
1	OS(Windows 10 and above)	8000
2	Server (Firebase)	1600/-per month
3	Visual Studio Code	0

5.1.3 Communication Interface Requirement

Sr.No	Communication Interface	Estimate Cost
1	Anti-virus	1000-1500

CHAPTER 6

Design Modeling and Analysis using Software

6.1 Reverse Engineering
6.2 UML Design
6.3 Data Flow Design

6.1 Reverse Engineering

Reverse Engineering, also called as Back Engineering, is the process of extracting knowledge or design information from any man-made thing and then re-producing it by following the Design Process. Thus from a user's point-of-view, there may be a need to modify some feature or to add some features.

6.2 UML Design

UML is a way of visualizing a software program using a collection of diagrams. The notation has evolved from the work of Grady Brooch, James Rumbaugh, Ivar Jacobson, and the Rational Software Corporation to be used for object-oriented design, but it has since been extended to cover a wider variety of software engineering projects. Today, UML is accepted by the Object Management Group (OMG) as the standard for modeling software development.

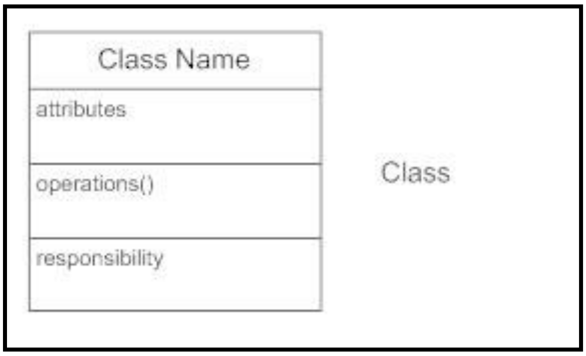
6.2.1 Class Diagram

Class diagrams model the static structure of a system. They show relationships between classes, objects, attributes, and operations.

Classes:

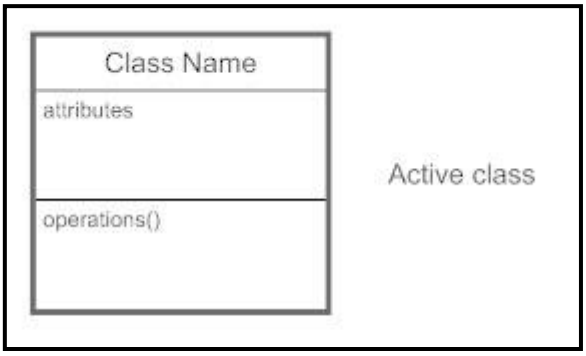
Classes represent an abstraction of entities with common characteristics. Associations represent the relationships between classes.

Illustrate classes with rectangles divided into compartments. Place the name of the class in the first partition (centered, bolded, and capitalized), list the attributes in the second partition (left-aligned, not bolded, and lowercase), and write operations into the third.



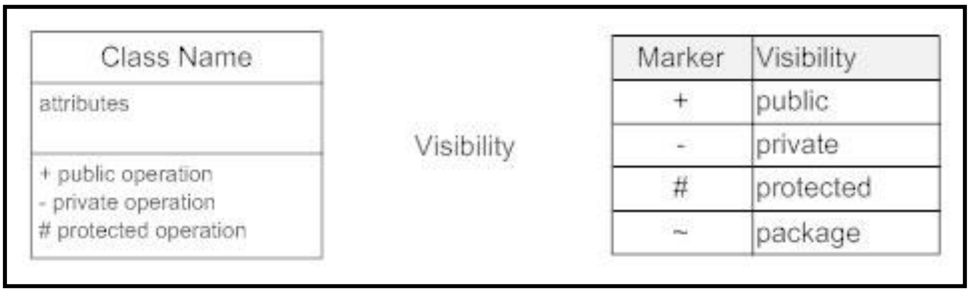
Active Classes

Active classes initiate and control the flow of activity, while passive classes store data and serve other classes. Illustrate active classes with a thicker border.



Visibility

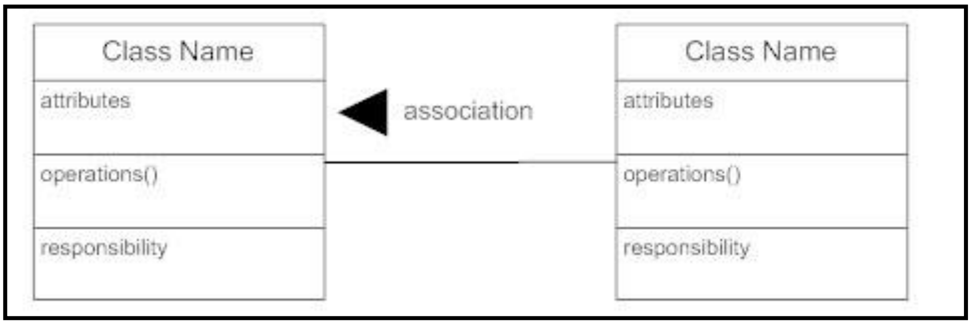
Use visibility markers to signify who can access the information contained within a class. Private visibility, denoted with a - sign, hides information from anything outside the class partition. Public visibility, denoted with a + sign, allows all other classes to view the marked information. Protected visibility, denoted with a # sign, allows child classes to access information they inherited from a parent class.



Marker	Visibility
+	public
-	private
#	protected
~	package

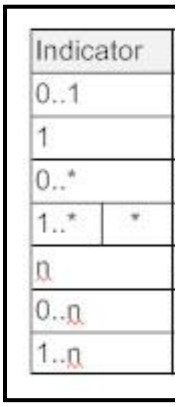
Associations

Associations represent static relationships between classes. Place association names above, on, or below the association line. Use a filled arrow to indicate the direction of the relationship. Place roles near the end of an association. Roles represent the way the two classes see each other.

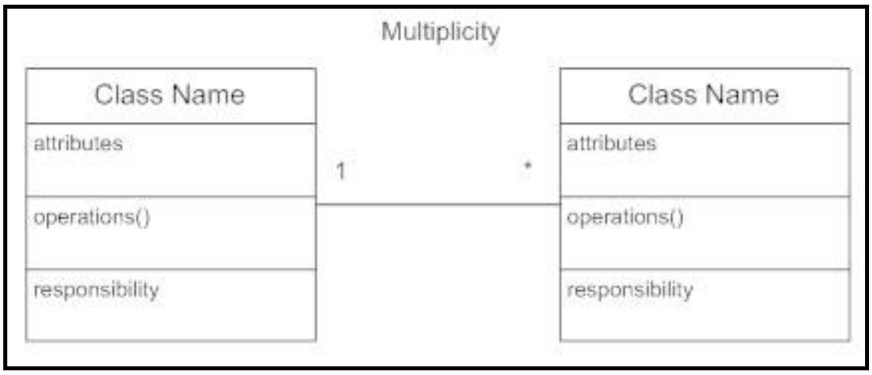


Multiplicity (Cardinality)

Place multiplicity notations near the ends of an association. These symbols indicate the number of instances of one class linked to one instance of the other class. For example, one company will have one or more employees, but each employee works for just one company.

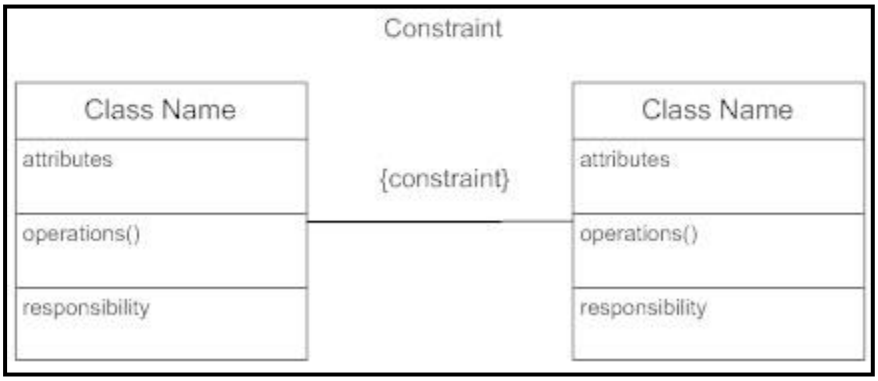


Indicator	
0..1	
1	
0..*	
1..*	*
n	
0..n	
1..n	



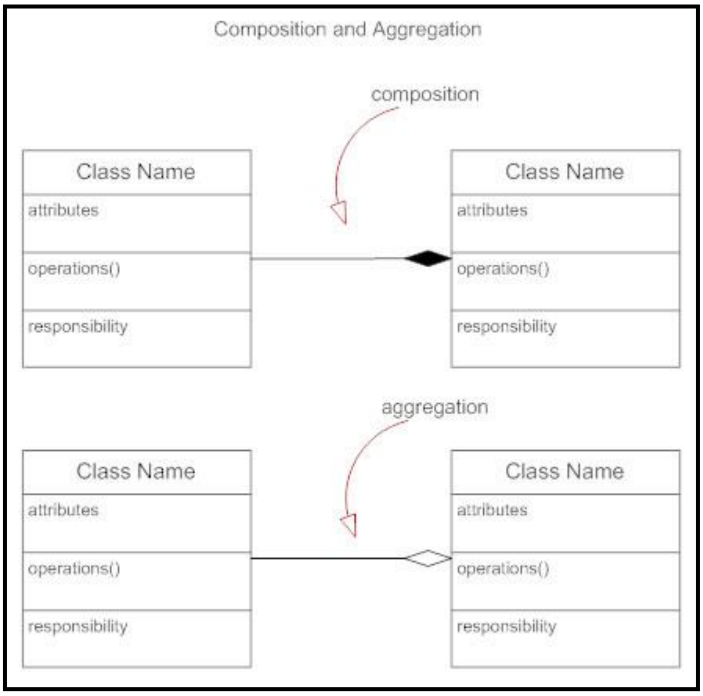
Constraint

Place constraints inside curly braces {}.



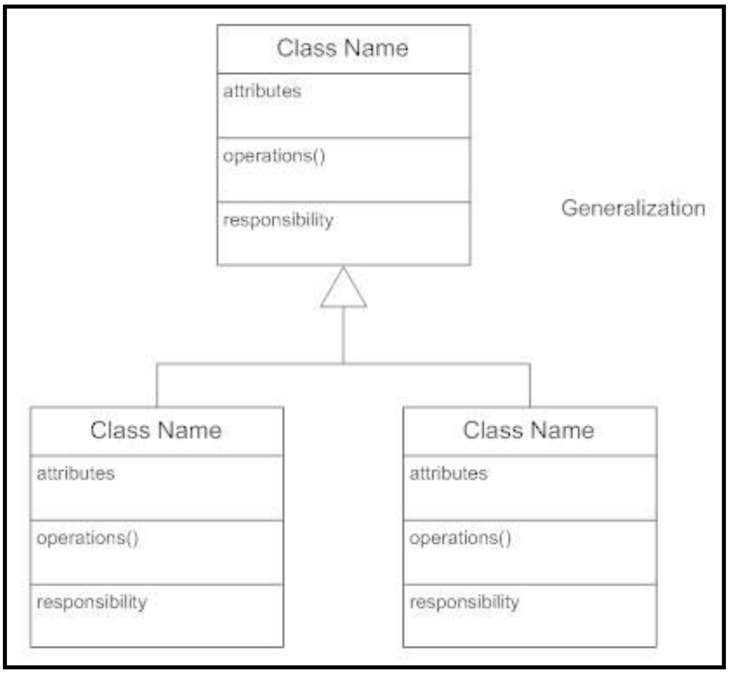
Composition and Aggregation

Composition is a special type of aggregation that denotes a strong ownership between Class A, the whole, and Class B, its part. Illustrate composition with a filled diamond. Use a hollow diamond to represent a simple aggregation relationship, in which the "whole" class plays a more important role than the "part" class, but the two classes are not dependent on each other. The diamond ends in both composition and aggregation relationships point toward the "whole" class (i.e., the aggregation).



Generalization

Generalization is another name for inheritance or an "is a" relationship. It refers to a relationship between two classes where one class is a specialized version of another. For example, Honda is a type of car. So the class Honda would have a generalization relationship with the class car.



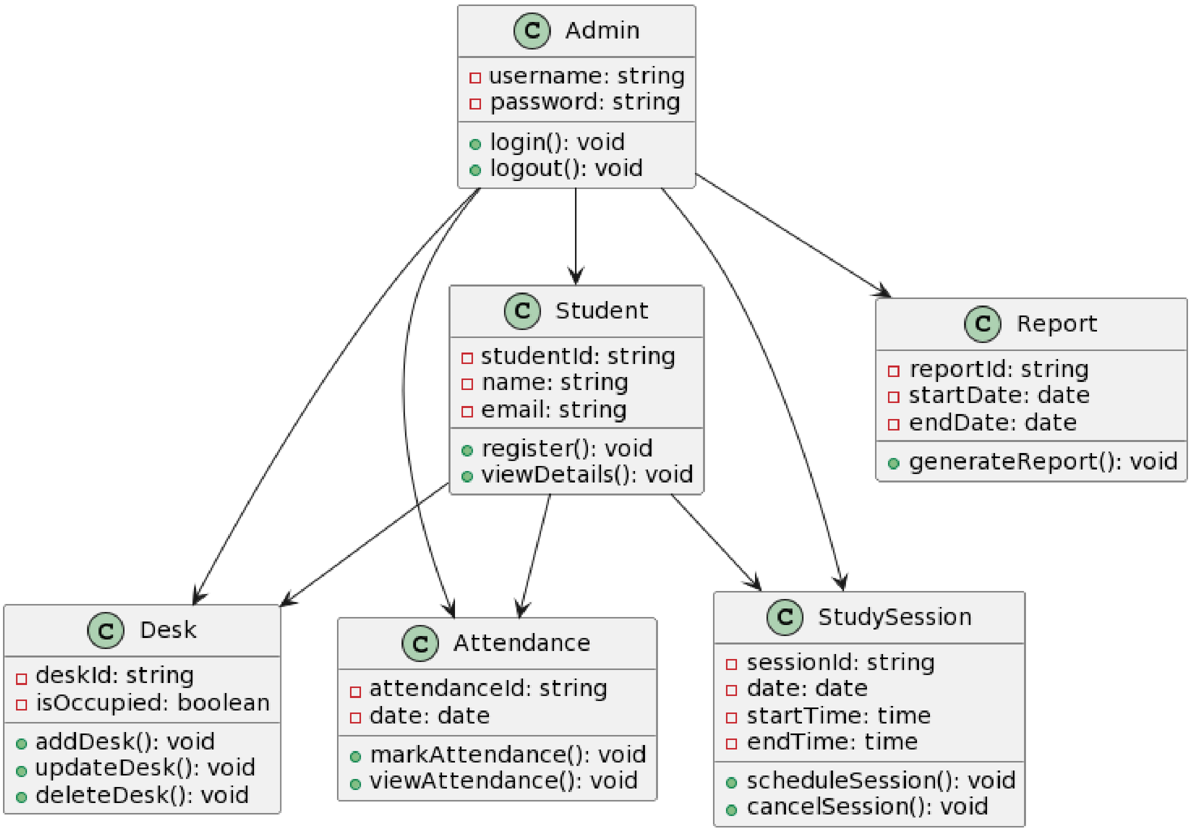
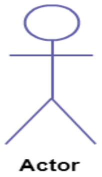


Fig 6.1 Class Diagram

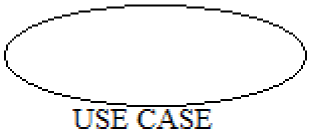
6.2.2 Use Case Diagram

Actors: An Actor is a direct external user of system. Something with a behavior or role.

e.g., a person, another system, organization.



Use Cases: The various interactions of actors with a system are quantized in to use cases. A collection of related success and failure scenarios, describing actors using the system to support a goal.



Use Case Diagram: A system involves a set of use cases and a set of actors. Use case diagrams are considered for high level requirement analysis of a system. So when the requirements of a system are analyzed the functionalities are captured in use cases

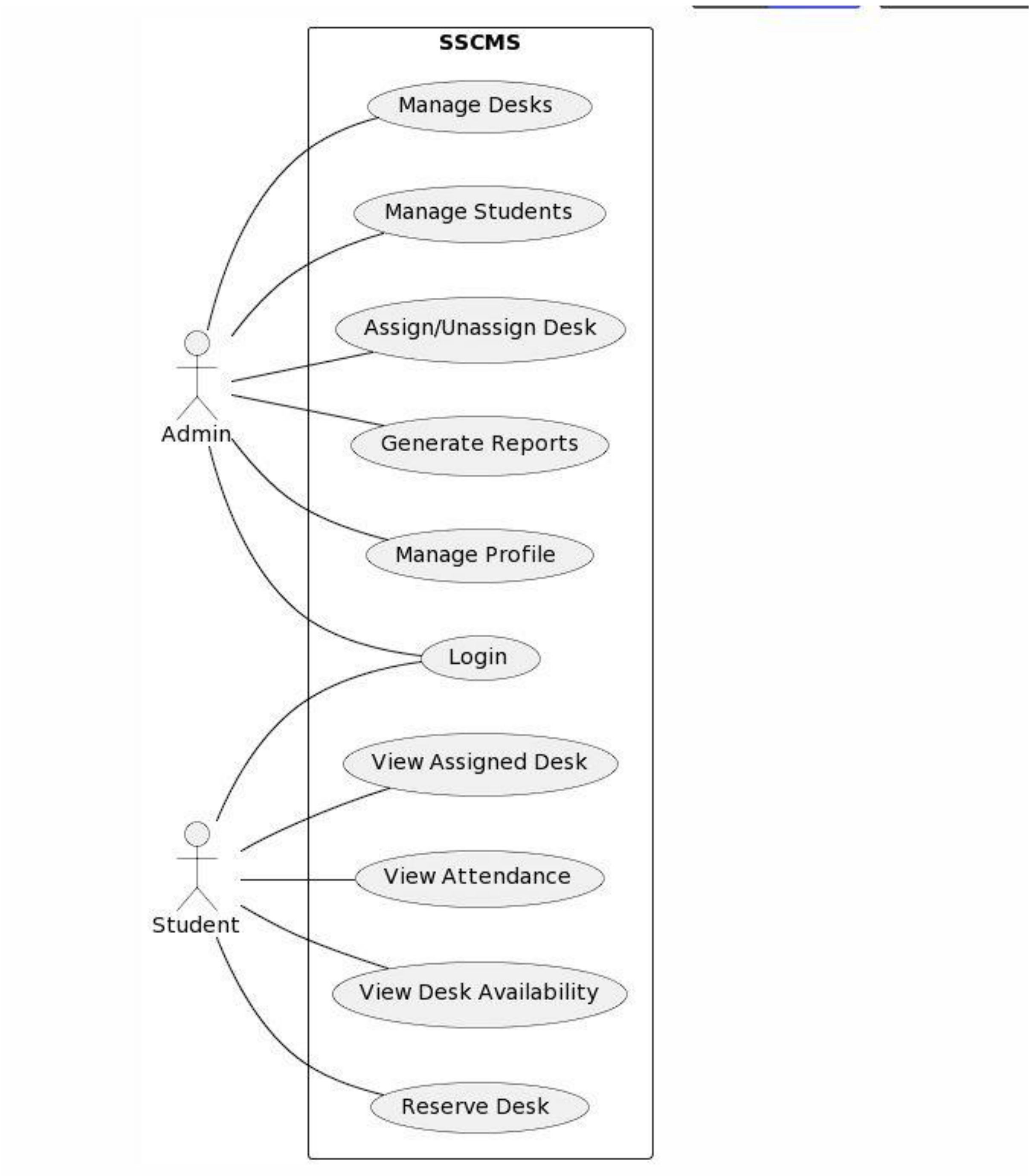
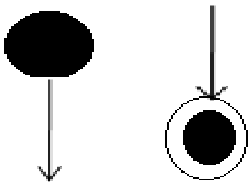


Figure 6.2 Use-case diagram

6.2.3 Activity Diagram

Activity diagram: Activity diagram is another important diagram in UML to describe dynamic aspects of the system. Activity diagram is basically a flow chart to represent the flow form one activity to another activity. The activity can be described as an operation of the system.

Initiation & Termination: A Solid circle with outgoing arrows shows the starting point of an activity diagram. A bull's-eye shows the termination Point.

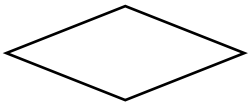


Initiation & Termination

Activity: An activity is some task which needs to be done. Each activity can be followed by another activity (sequencing).

Activity

Branches: If several arrows enter an activity. the alternate execution paths merge. Alternatively, several arrows may enter a diamond and one may exit to indicate a merge.



Diamond

Concurrent Activities: If one activity may be followed by another activity, then split into several concurrent activities (A fork control), and finally be combined into a single activity (A merge/join control). A fork or merge is shown by a synchronization bar –a heavy line with one or more input arrows and one or more output arrows.

Synchronization Bar

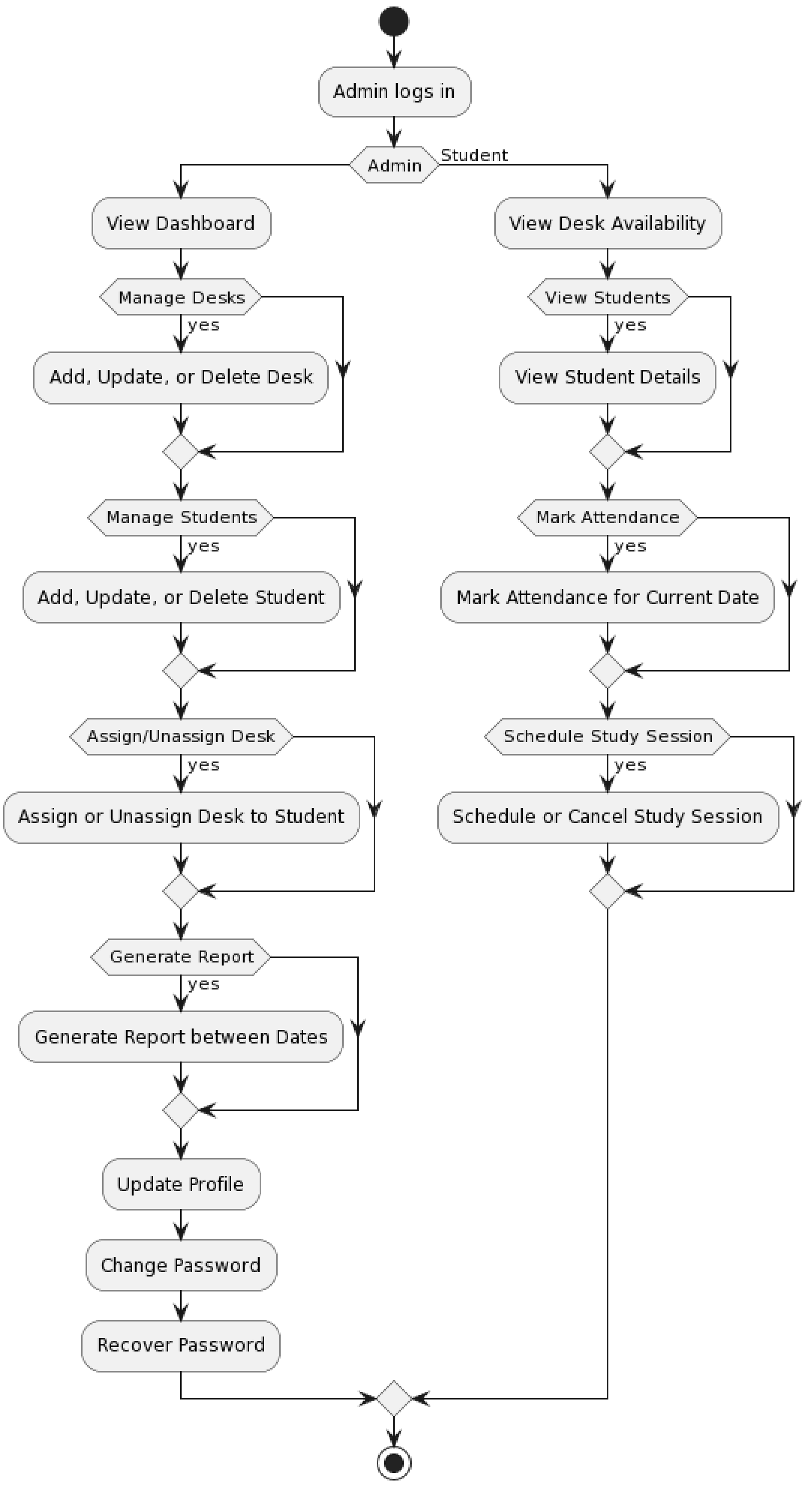


Figure 6.3 Activity diagram

6.2.4 Sequence Diagram

Scenarios: - A Scenario is a sequence of events that occurs during one particular execution of a system, such as for a use case. The scope of a scenario can vary it may include all events in the system, or it may include only those events impinging on or generated by certain object.

Sequence Diagram: - A Sequence diagram shows the participants in an interaction and the sequence of messages among them. A Sequence diagram shows the interaction of a system with its actors to perform all or part of use case

Each actor as well as the system is represented by a vertical line called lifeline and each message by a horizontal arrow from the sender to the receiver.

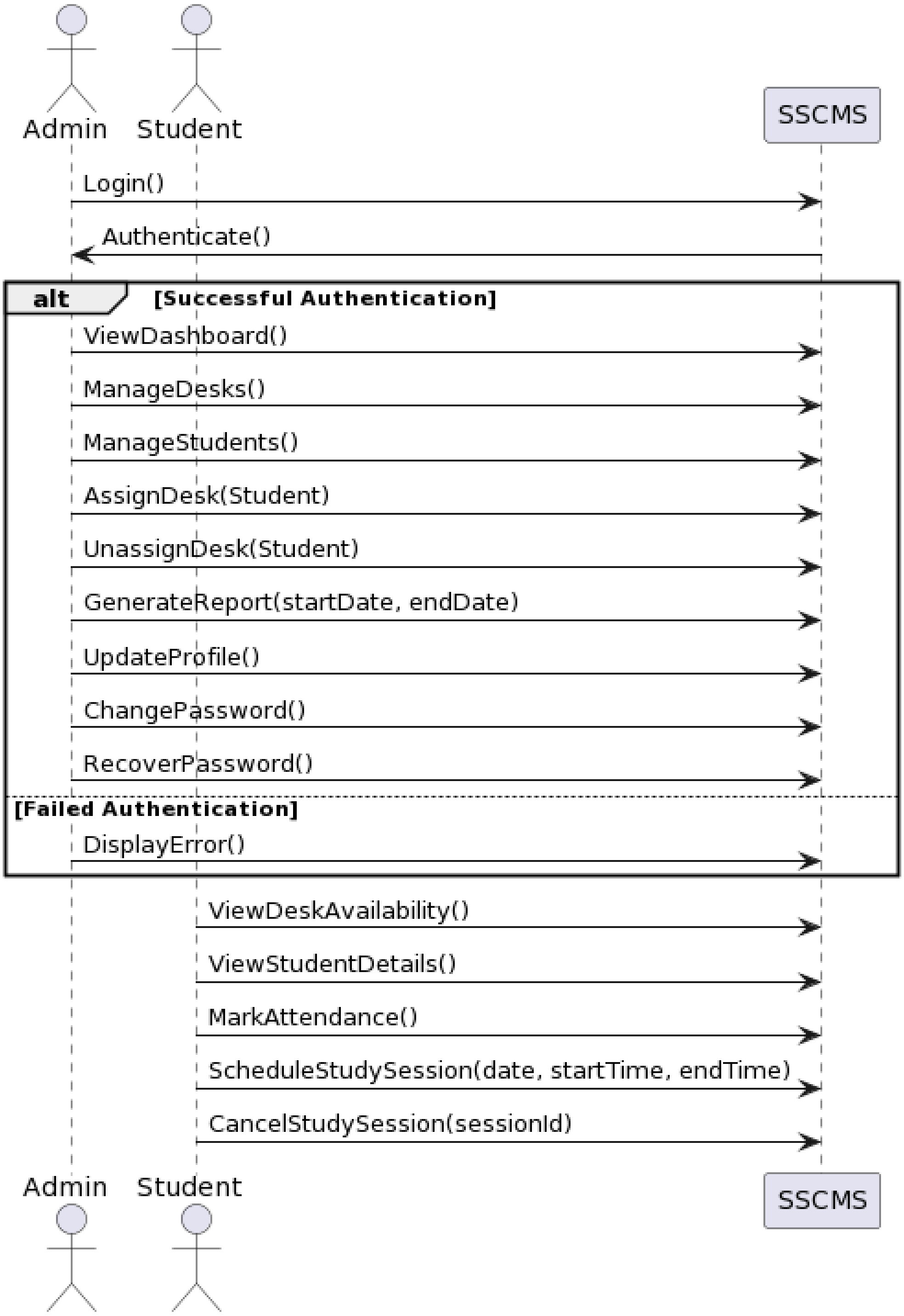


Figure 6.4 Sequence diagram

6.3 Data Flow Design

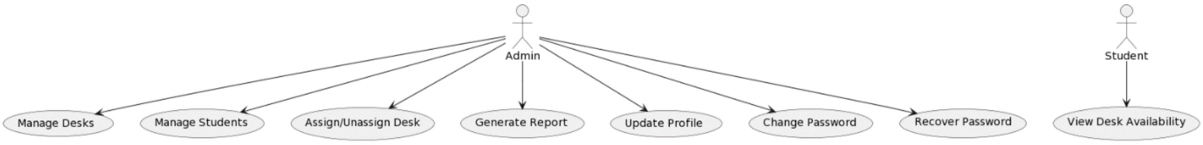
Data flow diagrams are also known as bubble charts. DFD is a designing tool used in the top-down approach to Systems Design. This context-level DFD is next "exploded", to produce a Level 1 DFD that shows some of the detail of the system being modeled. The Level 1 DFD shows how the system is divided into sub-systems (processes), each of which deals with one or more of the data flows to or from an external agent, and which together provide all of the functionality of the system as a whole. It also identifies internal data stores that must be present in order for the system to do its job, and shows the flow of data between the various parts of the system.

Data flow diagrams are one of the three essential perspectives of the structured-systems analysis and design method SSADM. The sponsor of a project and the end users will need to be briefed and consulted throughout all stages of a system's evolution. With a data flow diagram, users are able to visualize how the system will operate, what the system will accomplish, and how the system will be implemented. The old system's data flow diagrams can be drawn up and compared with the new system's data flow diagrams to draw comparisons to implement a more efficient system. Data flow diagrams can be used to provide the end user with a physical idea of where the data they input ultimately has an effect upon the structure of the whole system from order to dispatch to report. How any system is developed can be determined through a data flow diagram model. In the course of developing a set of levelled data flow diagrams the analyst/designer is forced to address how the system may be decomposed into component sub-systems, and to identify the transaction data in the data model.

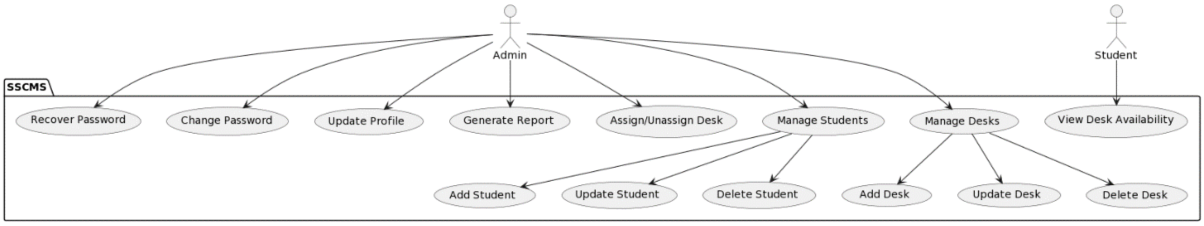
Data flow diagrams can be used in both the Analysis and Design phases of the SDLC.

There are different notations to draw data flow diagrams (Yourdon & Coad and Gane & Sarson), defining different visual representations for processes, data stores, data flow, and external entities.

Level 0 DFD - SSCMS



Level 1 DFD - SSCMS



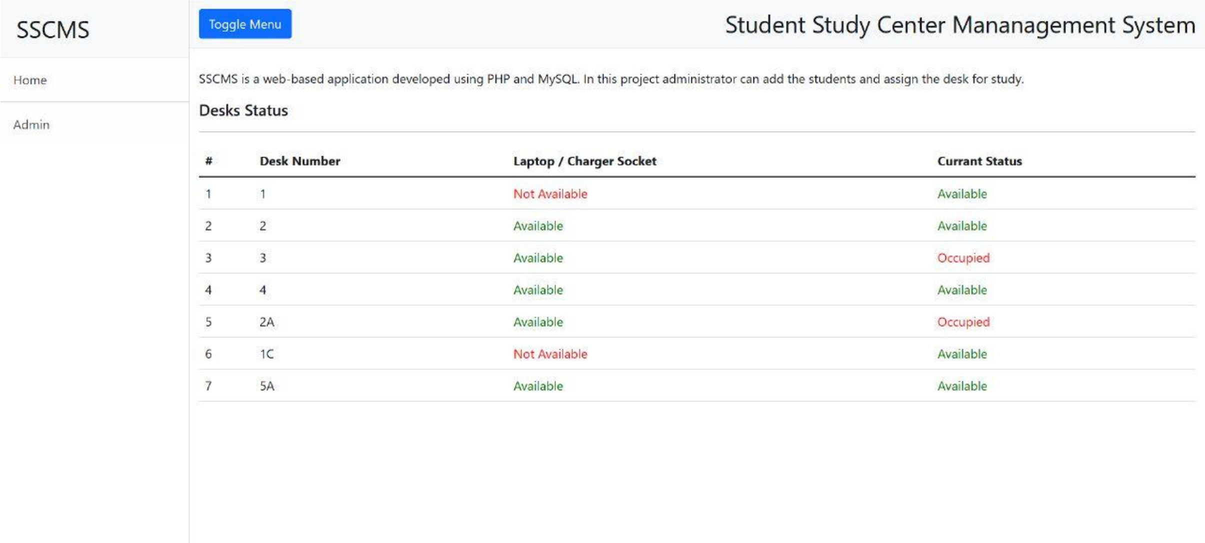
CHAPTER 7

Prototyping and Proofing of Concepts

7.1 Prototype Model

7.1 Prototype Model

The prototype is sketch with interaction to create a rough model. The prototype model is working hardware or software model of our system. With the help of prototype any user can get exact idea about over system and well understands our system.

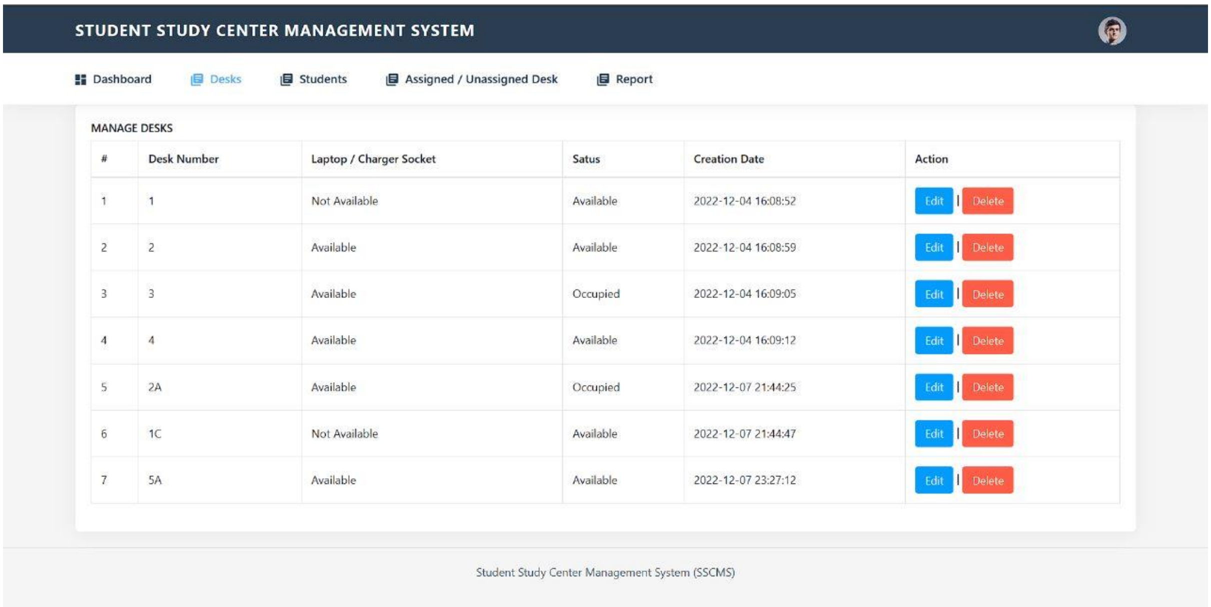


Student Study Center Mananagement System

SSCMS is a web-based application developed using PHP and MySQL. In this project administrator can add the students and assign the desk for study.

Desks Status

#	Desk Number	Laptop / Charger Socket	Currant Status
1	1	Not Available	Available
2	2	Available	Available
3	3	Available	Occupied
4	4	Available	Available
5	2A	Available	Occupied
6	1C	Not Available	Available
7	5A	Available	Available



STUDENT STUDY CENTER MANAGEMENT SYSTEM

MANAGE DESKS

#	Desk Number	Laptop / Charger Socket	Satus	Creation Date	Action
1	1	Not Available	Available	2022-12-04 16:08:52	Edit | Delete
2	2	Available	Available	2022-12-04 16:08:59	Edit | Delete
3	3	Available	Occupied	2022-12-04 16:09:05	Edit | Delete
4	4	Available	Available	2022-12-04 16:09:12	Edit | Delete
5	2A	Available	Occupied	2022-12-07 21:44:25	Edit | Delete
6	1C	Not Available	Available	2022-12-07 21:44:47	Edit | Delete
7	5A	Available	Available	2022-12-07 23:27:12	Edit | Delete

Student Study Center Management System (SSCMS)

Fig : 7.1 Rough Prototype model

CHAPTER 8

Design for Use, Reuse & Sustainability

8.1 Design for use – How long this design will work?

8.1.1 Reliability

8.1.2. Maintainability

8.2 Designs for Reuse

8.3 Designs for Sustainability

8.1 Design for use – How long this design will work?

During the software design phase, the design document is produced, based on the customer requirements and documented in the SRS document. The activities carried out during the design phase (called as design process) transform the SRS documents into the design document.

Design is what that every engineer wants to do. It is the place where creativity rules where customer requirements, business needs, and technical considerations all come together in the formulation of a product or system.

How long this design will work?

Design allows a software engineer to model the system or product that is to be built. This model can be assessed for a quality and improved before code is generated, test is conducted.

Design depicts the software in a number of different ways. First the architecture of the system. Then the interface that connect the software to the end user. Finally, the software components that are used to construct the system are designed.

A design model that encompasses architectural, interface, component level, and deployment representation is the primary work product that is produced during software design. The goal of design engineering is to produce a model or representation that exhibits firmness, commodity, and delight. To accomplish this, a designer must practice diversification and the convergence. Once this diverse set of information is assembled, the designer must pick and choose elements from the repertoire that meet the requirement defined by requirement engineering.

There are two ways of constructing a software design. One way is to make it so simple that there are obviously no deficiencies, and the other way is to make it so complicated that are obviously no deficiencies. The first method is for more difficult.

During design we make decisions that will ultimately affect the success of software construction and, as important, the ease with which software can be maintained. Software design serves as the foundation for all the software engineering and software support activities that follow.

8.1.1 Reliability

Software reliability is defined as the probability of failure-free software operation for a specified environment. Therefore, the main concern is centered on software faults, their effect on the system and the remaining number of faults, system failures, the way of detecting failures, time between failures and failures rates, as well as the confidence in the performed estimates.

Software reliability cannot be calculated during the design phase. If adequate data on the system failures is collected throughout the project, especially during the testing/verification/validation and maintenance phase, the same models for estimating reliability parameters, such as the expected number of failure intensity, the expected time of next failure, etc., could be applied to the software system.

8.1.2 Maintainability

The maintenance of existing software can account for over 60 percent of all effort expended by a development organization, and percentage continues to rise as more software is produced.

Another reason for software maintenance problem is the mobility of software people. It is likely that the software team that did the original work is no longer around. Worse, subsequent generations of software people have modified the system and moved on. Today there may be no one left who has any direct knowledge of the legacy system.

Software maintenance can be defined by identifying four different activities: corrective maintenance, adaptive maintenance, perfective maintenance or enhancement, and preventive maintenance or reengineering.

8.2 Designs for Reuse

As the design model evolves, the software team must develop a complete set of attributes and operation for each design class. The level of abstraction is reduced as each analysis class is transformed into a design representation.

Like other software engineering activities, data design creates a model of data and information that is represented at a high level of abstraction. This data model is then refined into progressively more implementation-specific representation that can be processed by the computer-based system. The structure of data always had been an important part of software design. At the program component level, the design of data structure and the associated algorithm required to manipulate them is essential to the creation of high quality application.

The first attempt was for a team to build a ‘marble maze’ with materials that can be recycled. The envelope dimensions are stipulated and the team must come up with a design that will maximize the amount of time for the marble to go from the highest elevation to the lowest. Experiential learning has been emphasized in the School of Engineering at the University of Dayton for over 25 years. The evolution has gone from individual projects to team projects and from single discipline to multidisciplinary teams. In the last 5 years the percentage of projects related to design for the environment, design of thermal systems and renewable energy systems reached about one third of the capstone design projects.

8.3 Designs for Sustainability

The phrase ‘Sustainable Design Landscape’ is defined here as the environment within which the design projects and in particular the sustainable design projects are implemented. In this category there are several topics. First there is the course sequence. For a number of years, the main course was a single capstone design course.

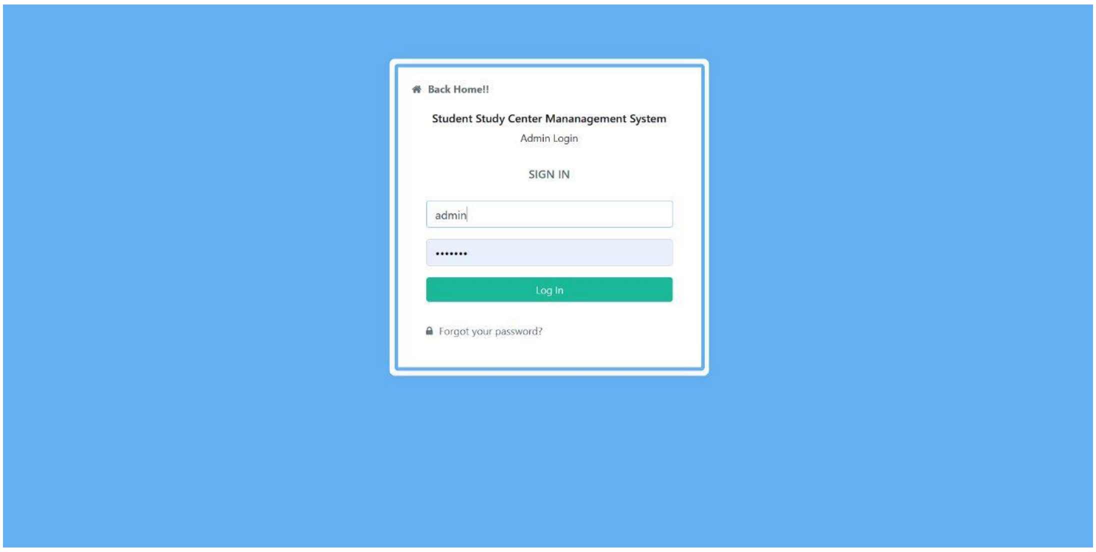
The product realization process continues to be the sequence by which the projects are initiated and brought to completion. Finally, the newly renovated Innovation Center facility has been a location that is the focal point for nearly all design related activities associated with sponsored projects. Test to determine not only their own personal traits but how to deal with others. A psychologist spends one class period going over the different characteristics of each type and how differences can enhance a team. This is followed by a ‘fun’ team building exercise.

CHAPTER 9

Test the Prototype

9.1 Testing of Prototype

9.1 Testing of Prototype



Back Home!!

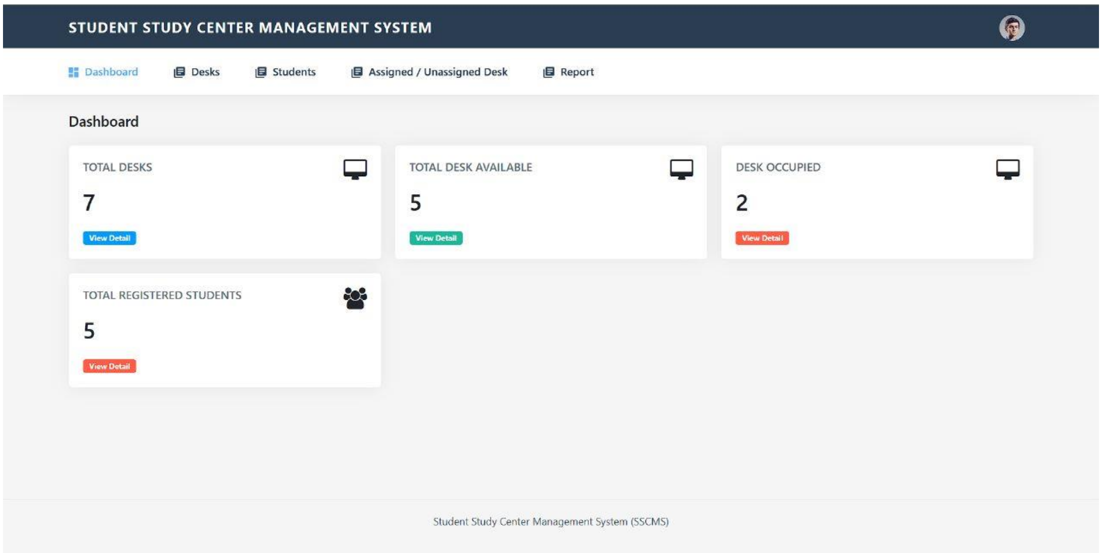
Student Study Center Mananagement System

Admin Login

SIGN IN

admin

•••••••



STUDENT STUDY CENTER MANAGEMENT SYSTEM

Dashboard

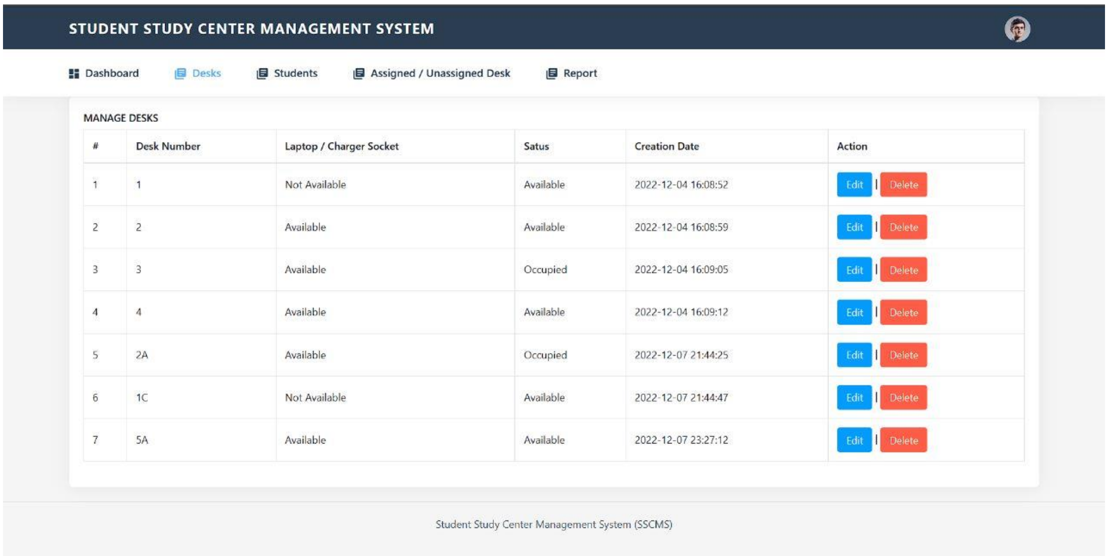
TOTAL DESKS 7

TOTAL DESK AVAILABLE 5

DESK OCCUPIED 2

TOTAL REGISTERED STUDENTS 5

Student Study Center Management System (SSCMS)



STUDENT STUDY CENTER MANAGEMENT SYSTEM

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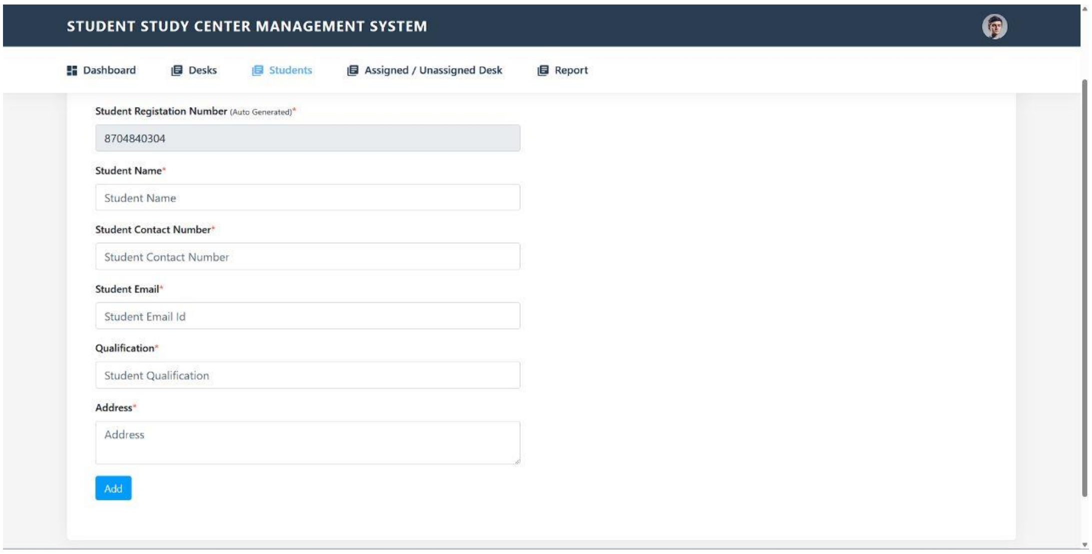
3	3	Available	Occupied	2022-12-04 16:09:05	Edit | Delete
4	4	Available	Available	2022-12-04 16:09:12	Edit | Delete
5	2A	Available	Occupied	2022-12-07 21:44:25	Edit | Delete
6	1C	Not Available	Available	2022-12-07 21:44:47	Edit | Delete
7	5A	Available	Available	2022-12-07 23:27:12	Edit | Delete

Student Study Center Management System (SSCMS)


STUDENT STUDY CENTER MANAGEMENT SYSTEM
Dashboard
Desks
Students
Assigned / Unassigned Desk
Report
Add

Student Registation Number (Auto Generated)*

8704840304

Student Name*

Student Name

Student Contact Number*

Student Contact Number

Student Email*

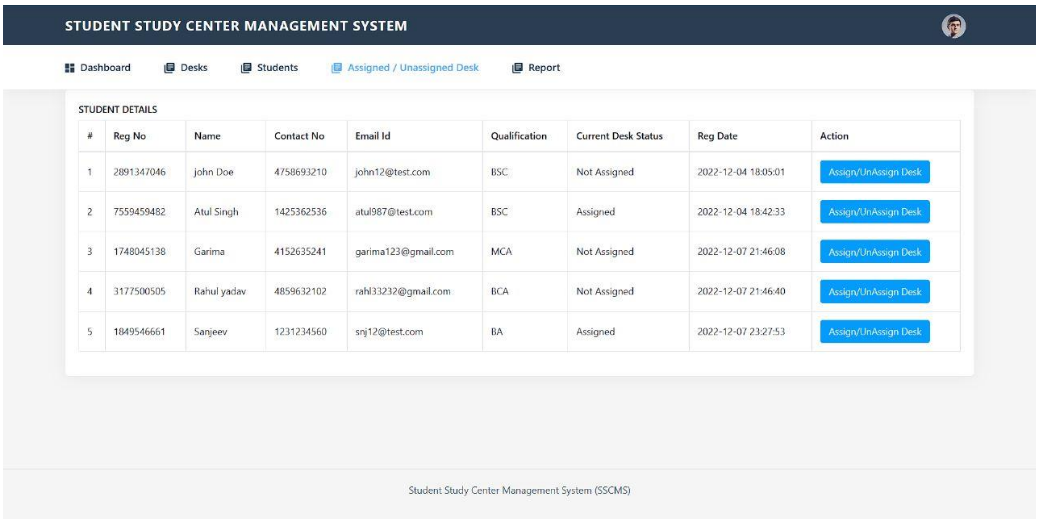
Student Email Id

Qualification*

Student Qualification

Address*

Address


STUDENT STUDY CENTER MANAGEMENT SYSTEM
Dashboard
Desks
Students
Assigned / Unassigned Desk
Report

STUDENT DETAILS

#	Reg No	Name	Contact No	Email Id	Qualification	Current Desk Status	Reg Date	Action
1	2891347046	john Doe	4758693210	john12@test.com	BSC	Not Assigned	2022-12-04 18:05:01	Assign/UnAssign Desk
2	7559459482	Atul Singh	1425362536	atul987@test.com	BSC	Assigned	2022-12-04 18:42:33	Assign/UnAssign Desk
3	1748045138	Garima	4152635241	garima123@gmail.com	MCA	Not Assigned	2022-12-07 21:46:08	Assign/UnAssign Desk
4	3177500505	Rahul yadav	4859632102	rahl33232@gmail.com	BCA	Not Assigned	2022-12-07 21:46:40	Assign/UnAssign Desk
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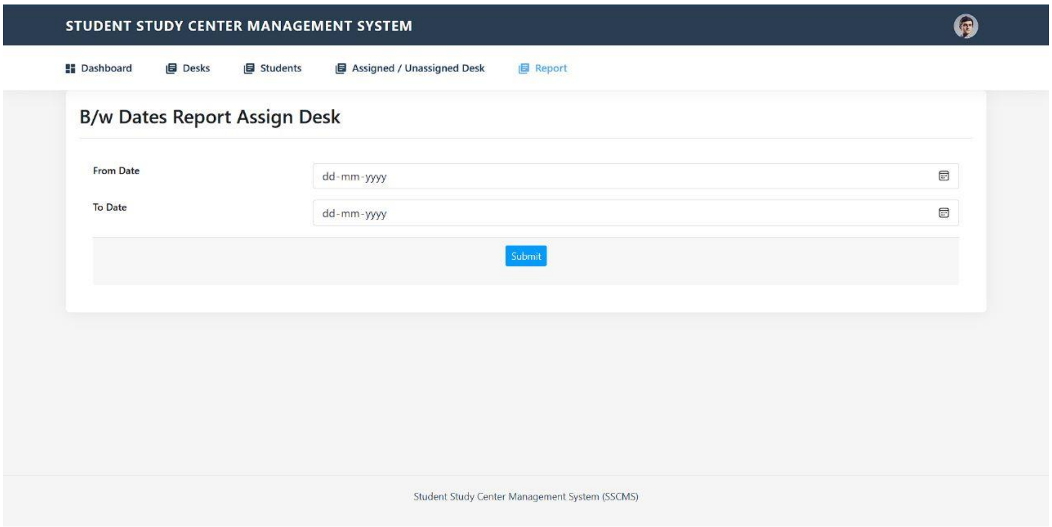
Student Study Center Management System (SSCMS)

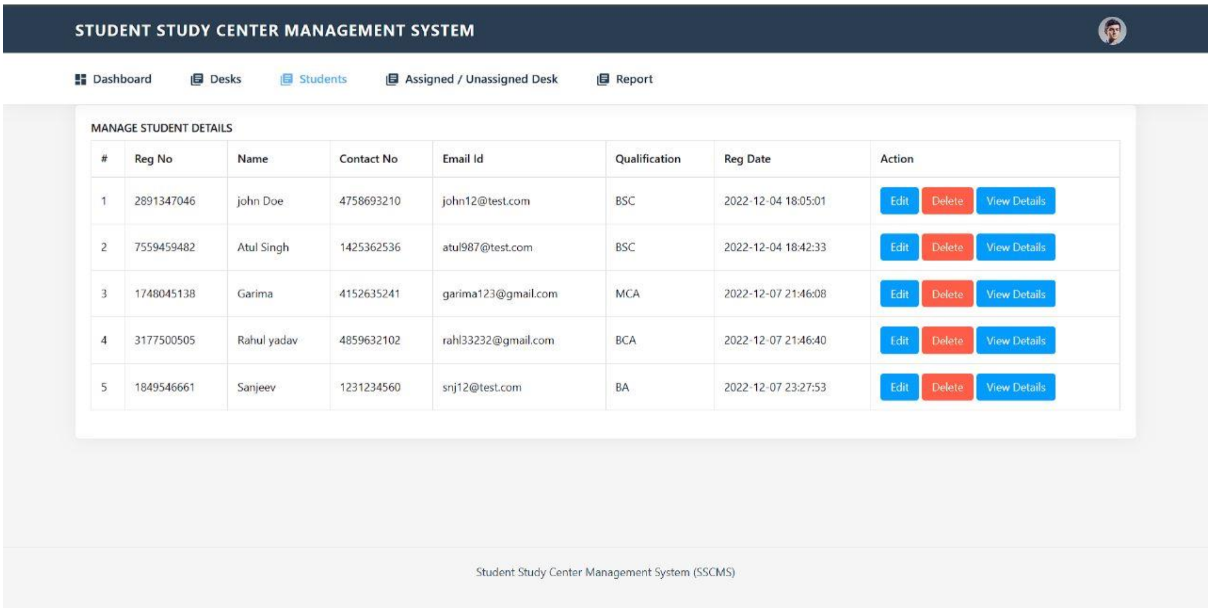

STUDENT STUDY CENTER MANAGEMENT SYSTEM
Dashboard
Desks
Students
Assigned / Unassigned Desk
Report
Submit

B/w Dates Report Assign Desk

From Date dd-mm-yyyy

To Date dd-mm-yyyy

Student Study Center Management System (SSCMS)


STUDENT STUDY CENTER MANAGEMENT SYSTEM
Dashboard
Desks
Students
Assigned / Unassigned Desk
Report

MANAGE STUDENT DETAILS

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3	1748045138	Garima	4152635241	garima123@gmail.com	MCA	2022-12-07 21:46:08	Edit Delete View Details
4	3177500505	Rahul yadav	4859632102	rahl33232@gmail.com	BCA	2022-12-07 21:46:40	Edit Delete View Details
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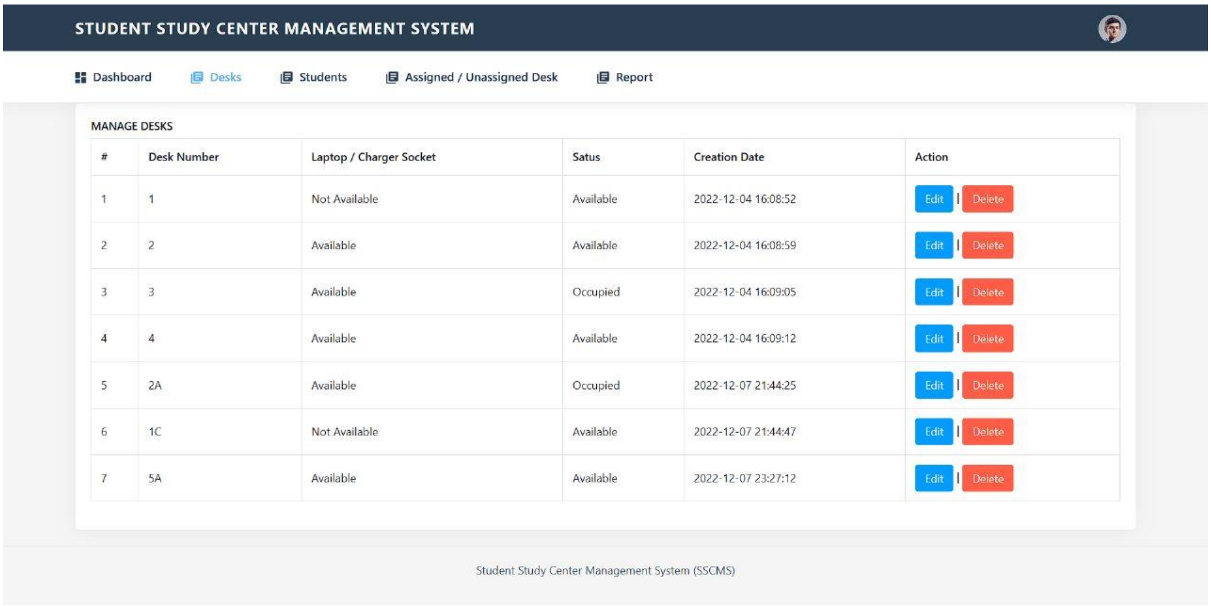
Student Study Center Management System (SSCMS)


STUDENT STUDY CENTER MANAGEMENT SYSTEM
Dashboard
Desks
Students
Assigned / Unassigned Desk
Report

MANAGE DESKS

#	Desk Number	Laptop / Charger Socket	Satus	Creation Date	Action
1	1	Not Available	Available	2022-12-04 16:08:52	Edit | Delete
2	2	Available	Available	2022-12-04 16:08:59	Edit | Delete
3	3	Available	Occupied	2022-12-04 16:09:05	Edit | Delete
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6	1C	Not Available	Available	2022-12-07 21:44:47	Edit | Delete
7	5A	Available	Available	2022-12-07 23:27:12	Edit | Delete

Student Study Center Management System (SSCMS)

CHAPTER 10

Comparison of existing materials, methods tools and equipment

10.1 Comparing existing system with our system

10.1 Comparing existing system with our system

When comparing the existing systems with our proposed Student Study Center Management System (SSCMS), the following aspects can be considered:

1. Features and Functionality: Assess the features and functionality of existing systems in comparison to SSCMS. Identify the key capabilities provided by both systems such as desk management, student registration, attendance tracking, report generation, and user management. Determine if SSCMS offers additional or enhanced features that address the specific needs of study centers more effectively.
2. User Experience: Evaluate the user experience of existing systems and compare it to the user interface and usability of SSCMS. Consider factors such as ease of navigation, intuitive design, responsiveness, and customization options. Determine if SSCMS provides a more streamlined and user-friendly experience for administrators, students, and other stakeholders.
3. Scalability and Customization: Examine the scalability and customization options offered by existing systems versus SSCMS. Assess if SSCMS can easily accommodate the varying needs and sizes of different study centers, allowing for scalability as the user base expands. Determine if SSCMS offers flexibility in customization, allowing study centers to tailor the system according to their specific requirements.
4. Integration and Compatibility: Evaluate the integration capabilities of existing systems and compare them to SSCMS. Consider if SSCMS can seamlessly integrate with other existing software systems or learning management platforms used by study centers. Assess if SSCMS supports compatibility with different operating systems, devices, and browsers.
5. Data Security and Privacy: Assess the data security and privacy measures implemented in existing systems and compare them to SSCMS. Determine if SSCMS provides robust data encryption, user authentication, access control, and data backup mechanisms to ensure the confidentiality and integrity of sensitive information.
6. Technical Support and Maintenance: Consider the level of technical support and maintenance provided by existing system providers versus SSCMS. Evaluate the availability of documentation, online resources, and customer support channels. Determine if SSCMS offers comprehensive support services, timely updates, and bug fixes to ensure smooth operation and user satisfaction.

CHAPTER 11

Ethics in Design

11.1 Code of Project

11.1 Code of Project

index.php

```
  <?php include('admin/includes/dbconnection.php');
?>
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="utf-8" />
        <title>Student Study Center Mananagement System </title>
        <!-- Favicon-->
        <!-- Core theme CSS (includes Bootstrap)-->
        <link href="css/styles.css" rel="stylesheet" />
    </head>
    <body>
        <div class="d-flex" id="wrapper">
            <!-- Sidebar-->
            <div class="border-end bg-white" id="sidebar-wrapper">
                <div class="sidebar-heading border-bottom bg-light" style="font-
size:30px;">SSCMS</div>
                <div class="list-group list-group-flush">
                    <a class="list-group-item list-group-item-action list-group-item-light p-3"
href="index.php">Home</a>
                    <a class="list-group-item list-group-item-action list-group-item-light p-3"
href="admin/">Admin</a>


                </div>
            </div>
            <!-- Page content wrapper-->
            <div id="page-content-wrapper">
                <!-- Top navigation-->
                <nav class="navbar navbar-expand-lg navbar-light bg-light border-bottom">
                    <div class="container-fluid">
                        <button class="btn btn-primary" id="sidebarToggle">Toggle Menu</button>
                        <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation"><span class="navbar-toggler-icon"></span></button>
                        <div class="collapse navbar-collapse" id="navbarSupportedContent">
                            <ul class="navbar-nav ms-auto mt-2 mt-lg-0">
                                <li class="nav-item active" style="font-size:30px;">Student Study Center Mananagement System </li>
                            </ul>
                        </div>
                    </div>
                </nav>
                <!-- Page content-->
                <div class="container-fluid" style="padding-top:2%;">
                    <p>SSCMS is a web-based application developed using PHP and MySQL. In this project administrator can add the students and assign the desk for study.</p>
                    <p>
                      <h5> Desks Status</h5>
                      <hr />
                      <table class="table">
    <thead>
      <tr>
        <th>#</th>
        <th>Desk Number</th>
         <th>Laptop / Charger Socket</th>
        <th>Currant Status</th>
      </tr>
    </thead>
    <tbody>
                                <?php
```

```
$sql="SELECT * from tbldesk ";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);

$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $row)
{               ?>
                                        <tr>
                                        <td><?php echo htmlentities($cnt);?></td>
                                        <td><?php  echo htmlentities($row->deskNumber);?></td>
                                          <td><?php  $lapchargerscoket=$row->laptopChargerScoket;
if($lapchargerscoket==''): echo "<span style='color:red'>Not Available</span>";
else : echo "<span style='color:green'>Available</span>";
endif; ?></td>

<td><?php  $occupiedstatus=$row->isOccupied;
if($occupiedstatus==''): echo "<span style='color:green'>Available</span>";
else : echo "<span style='color:red'>Occupied</span>";
endif; ?></td>
</tr>
<?php $cnt++;} } ?>

    </tbody>
  </table>


                </div>
            </div>
        </div>
        <!-- Bootstrap core JS-->
        <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
        <!-- Core theme JS-->
        <script src="js/scripts.js"></script>
    </body>
</html>
```

dbconnection.php

```
<?php
// DB credentials.
define('DB_HOST','localhost');
define('DB_USER','root');
define('DB_PASS','');
define('DB_NAME','sscmsdb');
// Establish database connection.
try
{
$dbh = new PDO("mysql:host=".DB_HOST.";dbname=".DB_NAME,DB_USER,
DB_PASS,array(PDO::MYSQL_ATTR_INIT_COMMAND => "SET NAMES 'utf8'"));
}
catch (PDOException $e)
{
exit("Error: " . $e->getMessage());
}
?>
```

add-desk.php

```
<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');
if (strlen($_SESSION['sscmsaid']==0)) {
  header('location:logout.php');
  } else{

if(isset($_POST['submit']))
{
$dno=$_POST['desknumber'];
$lcsocket=$_POST['laptopchargersocket'];
$query =$dbh -> prepare("SELECT id FROM tbldesk WHERE deskNumber=:dno");
$query-> bindParam(':dno', $dno, PDO::PARAM_STR);
$query-> execute();
$results = $query -> fetchAll(PDO::FETCH_OBJ);

if($query -> rowCount() > 0){
echo '<script>alert("Desk Number already Created try with another desk number.")</script>';
} else{

$sql="insert into tbldesk(deskNumber,laptopChargerScoket)values(:dno,:lcsocket)";
$query=$dbh->prepare($sql);
$query->bindParam(':dno',$dno,PDO::PARAM_STR);
$query->bindParam(':lcsocket',$lcsocket,PDO::PARAM_STR);
 $query->execute();

   $LastInsertId=$dbh->lastInsertId();
   if ($LastInsertId>0) {
echo '<script>alert("Desk has been added.")</script>';
echo "<script>window.location.href ='manage-desks.php'</script>";
```

```
  }
  else
    {
          echo '<script>alert("Something Went Wrong. Please try again")</script>';
    }

  }
}

?>
<!doctype html>
<html lang="en">

    <head>

        <title>Student Study Center Mananagement System | Add Desk</title>
        <link href="../plugins/switchery/switchery.min.css" rel="stylesheet" />
        <link href="assets/css/bootstrap.min.css" rel="stylesheet" type="text/css" />
        <link href="assets/css/style.css" rel="stylesheet" type="text/css" />
<script>
function checkDeskAvailability() {
$("#loaderIcon").show();
jQuery.ajax({
url: "check_availability.php",
data:'dno='+$("#desknumber").val(),
type: "POST",
success:function(data){
$("#desk-availability-status").html(data);
$("#loaderIcon").hide();
},
error:function (){}
```

```
});
}
</script>


  </head>


  <body>

<?php include_once('includes/header.php');?>
    <div class="wrapper">
      <div class="container">

        <!-- Page-Title -->
        <div class="row">
          <div class="col-sm-12">
            <div class="page-title-box">

              <h4 class="page-title">Add Desk</h4>
            </div>
          </div>
        </div>
        <!-- end row -->


        <div class="row">
          <div class="col-12">
            <div class="card-box">

              <div class="row">
```

```
                <div class="col-lg-6">


                  <h4 class="header-title m-t-0">Add Desk</h4>


                  <div class="p-20">
                    <form action="#" method="post">


                      <div class="form-group">
  <label for="userName">Desk Number<span class="text-danger">*</span></label>
<input type="text" class="form-control" placeholder="Desk Number" required="true"
name="desknumber" id="desknumber"  onBlur="checkDeskAvailability()">
 <span id="desk-availability-status"></span>


                      </div>
                      <div class="form-group">
                        <label for="emailAddress">Laptop / Charger Socket<span
class="text-danger"></span></label>
                        <input type="checkbox" value="Yes"
name="laptopchargersocket">
                      </div>


                      <div class="form-group text-left m-b-0">
                        <button class="btn btn-primary waves-effect waves-light"
type="submit" name="submit">
                          Add
                        </button>


                      </div>


                    </form>
                  </div>
                </div>


              </div>
              <!-- end row -->



            </div>
          </div><!-- end col-->


        </div>
        <!-- end row -->


      </div> <!-- container -->


<?php include_once('includes/footer.php');?>


    </div> <!-- End wrapper -->


    <!-- jQuery  -->
    <script src="assets/js/jquery.min.js"></script>
    <script src="assets/js/bootstrap.bundle.min.js"></script>
    <script src="assets/js/waves.js"></script>
    <script src="assets/js/jquery.nicescroll.js"></script>
    <script src="../plugins/switchery/switchery.min.js"></script>


    <!-- Validation js (Parsleyjs) -->
    <script src="../plugins/parsleyjs/parsley.min.js"></script>


    <!-- App js -->
    <script src="assets/js/jquery.core.js"></script>
    <script src="assets/js/jquery.app.js"></script>
```

```
        <script>
            $(document).ready(function() {
                $('form').parsley();
            });
        </script>

    </body>
</html>
<?php }
  ?>
```

addstudent.php

```
<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');
if (strlen($_SESSION['sscmsaid']==0)) {
  header('location:logout.php');
  } else{



//Add Students
    if(isset($_POST['submit']))
  {

$regno=$_POST['studentregno'];
$sname=$_POST['studentname'];
$scno=$_POST['studentcontactno'];
$studentemail=$_POST['studentemail'];
$squalification=$_POST['qualification'];
$address=$_POST['address'];
$status=1;
$sql="insert into tblstudents(registrationNumber,studentName,studentContactNo,studentEmailId,studentQualification,studentAddress,isActive)values(:regno,:sname,:scno,:studentemail,:squalification,:address,:status)";
$query=$dbh->prepare($sql);
$query->bindParam(':regno',$regno,PDO::PARAM_STR);
$query->bindParam(':sname',$sname,PDO::PARAM_STR);
$query->bindParam(':scno',$scno,PDO::PARAM_STR);
$query->bindParam(':studentemail',$studentemail,PDO::PARAM_STR);
$query->bindParam(':squalification',$squalification,PDO::PARAM_STR);
$query->bindParam(':address',$address,PDO::PARAM_STR);
$query->bindParam(':status',$status,PDO::PARAM_STR);
 $query->execute();


   $LastInsertId=$dbh->lastInsertId();
   if ($LastInsertId>0) {
    echo '<script>alert("Student Details added successfully")</script>';
echo "<script>window.location.href ='manage-students.php'</script>";
  }
  else
    {
         echo '<script>alert("Something Went Wrong. Please try again")</script>';
    }



}


?>
<!doctype html>
<html lang="en">
```

```
    <head>

        <title>Student Study Center Mananagement System | Add Student</title>
        <link href="../plugins/switchery/switchery.min.css" rel="stylesheet" />
        <link href="assets/css/bootstrap.min.css" rel="stylesheet" type="text/css" />
        <link href="assets/css/style.css" rel="stylesheet" type="text/css" />
    </head>


    <body>

<?php include_once('includes/header.php');?>
        <div class="wrapper">
            <div class="container">

                <!-- Page-Title -->
                <div class="row">
                    <div class="col-sm-12">
                        <div class="page-title-box">

                            <h4 class="page-title">Add Student Detail</h4>
                        </div>
                    </div>
                </div>
                <!-- end row -->


                <div class="row">
                    <div class="col-12">
                        <div class="card-box">
```

```
              <div class="row">
                <div class="col-lg-6">


                  <h4 class="header-title m-t-0">Add Student Detail</h4>


                  <div class="p-20">
                    <form action="#" method="post">


<div class="form-group">
<label for="studentname">Student Registation Number <small>(Auto Generated)</small><span class="text-danger">*</span></label>
<input type="text" class="form-control" required="true" name="studentregno" value="<?php echo mt_rand(1000000000,9999999999)?>" readonly>
</div>
<div class="form-group">
<label for="studentname">Student Name<span class="text-danger">*</span></label>
<input type="text" class="form-control" placeholder="Student Name" required="true" name="studentname">
</div>



<div class="form-group">
<label for="studentname">Student Contact  Number<span class="text-danger">*</span></label>
<input type="text" class="form-control" placeholder="Student Contact Number" required="true" name="studentcontactno" pattern="[0-9]{10}" maxlength="10" title="10 numeric characters only">
</div>



<div class="form-group">
<label for="studentname">Student Email<span class="text-danger">*</span></label>
```

```
<input type="email" class="form-control" placeholder="Student Email Id" required="true"
name="studentemail">

</div>




<div class="form-group">

<label for="studentname">Qualification<span class="text-danger">*</span></label>

<input type="text" class="form-control" placeholder="Student Qualification" required="true"
name="qualification">

</div>


<div class="form-group">

<label for="emailAddress">Address<span class="text-danger">*</span></label>

<textarea  class="form-control" placeholder="Address" required="true"
name="address"></textarea>

</div>






<div class="form-group text-left m-b-0">

<button class="btn btn-primary waves-effect waves-light" type="submit" name="submit">

Add</button>


                      </div>


                    </form>

                  </div>


                </div>


              </div>

              <!-- end row -->
```

```
                    </div>
                </div><!-- end col-->

            </div>
            <!-- end row -->

        </div> <!-- container -->

<?php include_once('includes/footer.php');?>

    </div> <!-- End wrapper -->

    <!-- jQuery  -->
    <script src="assets/js/jquery.min.js"></script>
    <script src="assets/js/bootstrap.bundle.min.js"></script>
    <script src="assets/js/waves.js"></script>
    <script src="assets/js/jquery.nicescroll.js"></script>
    <script src="../plugins/switchery/switchery.min.js"></script>

    <!-- Validation js (Parsleyjs) -->
    <script src="../plugins/parsleyjs/parsley.min.js"></script>

    <!-- App js -->
    <script src="assets/js/jquery.core.js"></script>
    <script src="assets/js/jquery.app.js"></script>

    <script>
        $(document).ready(function() {
            $('form').parsley();
        });
    </script>

</body>
</html><?php }  ?>
```

CONCLUSION

In conclusion, the Student Study Center Management System (SSCMS) project aims to address the challenges and improve the efficiency of managing a study center. Throughout the development process, we have observed the existing system and identified the need for a comprehensive solution to streamline administrative tasks, desk management, student management, attendance tracking, and study session scheduling.

By implementing SSCMS, we provide an intuitive and user-friendly platform that empowers administrators to effectively manage desks, students, and assignments. The system offers features such as desk management, student management, desk assignment/unassignment, attendance tracking, and study session scheduling. These functionalities enhance the overall organization and productivity of the study center.

SSCMS serves as a centralized platform that enables administrators to have better control over desk allocation, student information, attendance records, and study session management. It facilitates efficient decision-making, generates insightful reports, and automates routine administrative tasks. Students benefit from the system by having access to desk availability information.

Overall, SSCMS aims to optimize the study center management process, reduce manual efforts, and enhance the overall experience for administrators and students. It contributes to a more organized, efficient, and productive study center environment, ultimately improving the educational experience for all stakeholders involved.

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5. Stack Overflow (https://stackoverflow.com/): Online community for programming and software development, where you can find solutions to specific coding challenges or queries.