A

Project Report

On

"Material Sharing & Attendance Management System"

Submitted in Partial Fulfilment for Degree of

DIPLOMA IN COMPUTER ENGINEERING

Submitted By

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Department of Computer

SHREE TAPI BRAMCHARYASHRAM SABHA COLLEGE OF DIPLOMA ENGINEERING, SURAT

C E R T I F I C A T E

This is to certify that Mr. Greeshm Chodvadiya, Mr. Prashant Ramani, Mr. Darshan Vala and Mr. Umang Zala from S.T.B.S Collage of Diploma Engineering having Enrolment No. 156470307004, 156470307046, 156470307058 and 156470307063 has completed report on the Android based application having "Material Sharing & Attendance Management System" in a group consisting of four persons under the guidance of the faculty guide Mr. Jaydip Ujainiya.

The mentor from the industry for the project:

Name: - Mr. Sanjay Ramani

Industry: - Raksh Infotech

Email: - cto@rakshinfotech.com

_____ _____

Institute Guide-IDP/Industry Guide – IDP Head of Department

Acknowledgements

The success of any task relies on the efforts made by person but it cannot be achieved without cooperation of other persons which are being helpful. So, we would like to thank Shree Tapi Bramcharyashram Sabha College of Diploma Engineering and Raksh Infotech for giving us the opportunity of doing this project.

The entire session of our phase I completion was a great experience providing us with the insight & invocation into learning various software engineering concepts & benefits of team work. We would like to take this opportunity to express our sincere thanks to all those people without whose support and co-operation, it would have been difficult to complete this project.

Primarily, we are very much thankful to our internal project guide MR. JAYDIP UJAINIYA and external project guide MR. SANJAY RAMANI for their leading guidance and sincere efforts throughout project work. They took deep interest in simplifying the difficulties. Also they have been consistent source of inspiration for us.

We also express thanks to Mrs. Ami D. Afinwala our registration faculty for his personal involvement, constructive suggestion and thoughtful idea for betterment of the project.

We are grateful to our H.O.D. Mr. V. V. Patel and our beloved Principal Prof. Y. S. Choupare for providing us deep knowledge and all necessary resources.

We are also thankful to our Friends and all staff members of Computer Engineering Department for their valuable time and help for completion project.

Once again we are grateful to all those without whom this work would not have been successful.

Team Members

Mr. Greeshm Chodvadiya

Mr. Prashant Ramani

Mr. Darshan Vala

Mr. Umang Zala

Abstract

MAMS is an online management system that connects management of institute through android device interface. This system provides management facilities like easy attendance management of students, online notice-board, material sharing system and other useful stuff.

In attendance management the attendances of students will be taken by faculty and based on that, administrator and faculties can generate the automatic report of it. Student can also check their attendance based on respective subject. Faculties can share important notes among all students. Administrator and faculties will be allowed to send notice notification to all institute members or with restrictions.

This system is useful to the Institutes for making their management faster and easier.

Chapter – 1

Introduction of Project

1.1 Introduction of Problem

1.1.1 Problem Statement

- Nowadays college system is paper-based system. So it is difficult to manage because paper can be stolen, damage or lost.
- Also paper-based system is time-consuming.
- If admin display notice in college notice-board, student must go to notice-board to see. If student is on leave then he/she will not be notified.
- If faculties want to share material then faculty must share material in college time at college only.
- If student want to access material then student must access material in college time at college only.
- Student can see the attendance list only when it is displayed on the notice-board and attendance list contains only below 75% attendance of the student.
- It is difficult for faculties to generate attendance-list of students each month.

1.1.2 Description

- Our system is paper-less and easy to manage because it cannot be stolen, damage or lost, also back-up and recovery is available.
- Our system is managed on mobile so it is bit faster.
- Admin can display notice anywhere anytime in our application and student will notify in our application.
- Faculty can share material anywhere anytime in our application and student can access it anywhere anytime.
- Student can see their attendance list anytime in our application either his/her attendance below 75% or above.
- It will automatically generate attendance list of students as per admin and faculty requirement.

Chapter – 2

Industry Introductions

2.1 Company Profile

Company Logo:

Raksh Infotech
We believe in work ! We're different ! !

Company's Information:

Company Name:	Raksh Infotech
Address:	4040, 4th floor, The Palladium Mall, Yogi Chowk, Varachha, Surat, Gujarat 395006
Work Area:	Web Development Software Development Domain Hosting

- Raksh Infotech is a leading Solution Provider for web based application. The Company has been promoted by some highly experienced professionals dedicated to provide total IT Solutions under one roof. It possesses not only latest technology gadgets but also the most knowledgeable and experience hands to offer most user friendly customized solutions.

- Raksh Infotech is a leading web development company providing offshore web design and development services that include effectual static, flash, dynamic & e-commerce solutions. It provides high quality on site services for software development and the end users on a broad range of hardware and software platform and latest technologies.

- Within the first year of its operations, Raksh Infotech has carved a niche for itself in the IT industry and has increased its business by acquiring some major domestic projects. No doubt the company has been able to make a name for itself in a relatively short span of time only because of its ability commitments to ensure customer satisfaction by rewarding quality work on right time and in a right manner.

It works with following skill set:

- Web Technologies

  PHP, XML, JavaScript, HTML, DHTML

Chapter – 3

Project Profile

3.1 Environment Description

The project involved analysing the design of few applications so as to make the application more users friendly. To do so, it was really important to keep the navigations from one screen to the other well-ordered and at the same time reducing the amount of typing the user needs to do. In order to make the application more accessible, the android version had to be chosen so that it is compatible with most of the Android devices. Hence Android 4.1 Ice-cream sandwich version was chosen.

3.1.1 Hardware and software Requirement:

Software Requirements

For developing the application, following are the Software Requirements:

- Operating System: Windows XP or higher
- Language: Android, Java, PHP
- Database: MySQL
- Tools: Android Studio, SDK Tools, Dreamweaver
- Technologies used: Java, MySQL, PHP, XML.
- Server: WAMP Server
- Storage and Authentication Server: Firebase

For running the application, following are the Software Requirements:

- Operating System: Android 4.1 (ICS) or higher versions
- Network: Wi-Fi Internet or cellular Network

Hardware Requirements

- At Mobile Side:

Processor Speed	600 MHz
Memory	768 MB or Higher
Storage	30 MB of Space

- At Developer Side:

Processor	Intel Core i3 processor or Higher
Processor Speed	2.4 GHz or Better
Memory	4 GB or Greater

3.1.2 Technology Used

- World is contracting with the growth of mobile phone technology. As the number of users is increasing day by day, facilities are also increasing. Starting with simple regular handsets which were used just for making phone calls, mobiles have changed our lives and have become part of it.

What is Android?

- Android is a Linux-based Operating System supporting a large number of applications in Smart Phones.
- Android is an open-source project and is distributed free of charge.
- These applications make life more comfortable and advanced for the users.
- The operating system has a number of native applications supporting telephony, messaging, emailing, contact management, calendar, location services, mapping, social interaction, etc.
- Hardwires that support Android are mainly based on ARM architecture platform.
- Google provides a on-line electronic market for third-party developers to sell their custom applications.

Why Android?

- Android is an open-source project and is distributed free of charge.
- The operating system has a number of native applications supporting.
- Telephony, messaging, emailing, contact management, calendar, entertainment, multimedia experience, location services, mapping, social interaction, etc.
- Third party Java developers can use the Android API to extend the functionality of the devices.
- Google provides an on-line electronic market for third-party developers to sell their custom applications.

Android Versions:

Adobe Dreamweaver 8.0:

Adobe Dreamweaver is a web design and development application that provides a visual WYSIWYG editor (colloquially referred to as the Design view) and a code editor with standard features such as syntax highlighting, code completion, and code collapsing as well as more sophisticated features such as real-time syntax checking and code introspection for generating code hints to assist the user in writing code. The Design view facilitates rapid layout design and code generation as it allows users to quickly create and manipulate the layout of HTML elements.

Dreamweaver features an integrated browser for previewing developed webpages in the program's own preview pane in addition to allowing content to be open in locally installed web browsers. It provides transfer and synchronization features, the ability to find and replace lines of text or code by search terms or regular expressions across the entire site, and a templating feature that allows single-source update of shared code and layout across entire sites without server-side includes or scripting. The behaviours panel also enables use of basic JavaScript without any coding knowledge, and integration with Adobe's Spry Ajax framework offers easy access to dynamically-generated content and interfaces.

Dreamweaver can use third-party "Extensions" to extend core functionality of the application, which any web developer can write (largely in HTML and JavaScript). Dreamweaver is supported by a large community of extension developers who make extensions available (both commercial and free) for most web development tasks from simple rollover effects to full-featured shopping carts.

Wamp Server:

WAMP is a Windows OS based program that installs and configures Apache web server, MySQL database server, PHP scripting language, phpMyAdmin (to manage MySQL databases), and SQLite Manager (to manage SQLite databases). WAMP is designed to offer an easy way to install Apache, PHP and MySQL package with an easy to use installation program instead of having to install and configure everything yourself.

WAMP is so easy because once it is installed it is ready to go. You don't have to do any additional configuring or tweaking of any configuration files to get it running.

There are usually two reasons why someone chooses to install WAMP. They are looking to install WAMP for development purposes or to run their own server.

Android Studio:

- Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (ADT) as primary IDE for native Android application development.
- New features are expected to be rolled out with each release of Android Studio. The following features are provided in the current stable version:

  - Gradle-based build support
  - Android-specific refactoring and quick fixes
  - Lint tools to catch performance, usability, version compatibility and other problems
  - ProGuard integration and app-signing capabilities
  - Template-based wizards to create common Android designs and components
  - A rich layout editor that allows users to drag-and-drop UI components, option to preview layouts on multiple screen configurations
  - Support for building Android Wear apps

SQLite:

- SQLite is a relational database management system contained in a C programming library.
- In contrast to other database management system, SQLite is not a client server database engine. Rather, it is embedded into the end program.
- SQLite is ACID-compliant and implement most of the SQL standard, using a dynamically and weakly typed SQL syntax that does not guarantee the domain integrity.
- SQLite is a popular choice as embedded database software for local/client storage in application software such as web browsers.
- It is arguably the most widely deployed database engine, as it is used today by several widespread browsers, operating systems, and embedded, among others. SQLite has bindings to many programming languages.

JSON:

- JSON or JavaScript Object Notation, is an open standard format that uses human-readable text to transmit data objects consisting of attribute–value pairs.
- It is used primarily to transmit data between a server and web application, as an alternative to XML.
- Although originally derived from the JavaScript scripting language, JSON is a language-independent data format.
- Code for parsing and generating JSON data is readily available in a large variety of programming languages.
- The JSON format was originally specified by Douglas Crock ford. It is currently described by two competing standards, RFC 7159 and ECMA-404.
- The ECMA standard is minimal, describing only the allowed grammar syntax, whereas the RFC also provides some semantic and security considerations. The official Internet media type for JSON is application/json.
- The JSON filename extension is .json.

PHP:

- PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language.
- While PHP originally stood for Personal Home Page, it now stands for PHP: Hypertext Pre-processor, which is a recursive backroom.
- PHP code can be simply mixed with HTML code, or it can be used in combination with various templating engines and web frameworks.
- PHP code is usually processed by a PHP interpreter, which is usually implemented as a web server's native module or a Common Gateway Interface (CGI) executable.
- After the PHP code is interpreted and executed, the web server sends resulting output to its client, usually in form of a part of the generated web page – for example, PHP code can generate a web page's HTML code, an image, or some other data.

Firebase:

- Firebase is a mobile and web app development platform that provides developers with a plethora of tools and services to help them develop high-quality apps, grow their user base, and earn more profit.

- In short, Firebase handles the backend online element for your apps, allowing you to focus on the front-end UI and functionality. All this is done through a single SDK with easy-to-use APIs and excellent integration into Android Studio. This removes the need to create your own server-side script using PHP and MySQL, or a similar set-up. This is 'Backend as a Service' or 'BaaS', and essentially this means that anyone really *can* make that ambitious social app. It works with Android apps, iOS apps and web apps and best of all: it's free!

3.2 Existing System

3.2.1 System Component

- In each and every system there is particulars system component through the system are running till now. The existing system can be any type, they can kept in either maintain in traditional manual system or can be maintained using computerized system.
- But after sometimes is need OS implementation work in more in advanced way and can competed with existing system of others.
- The existing or in words the current system of our organization is completely manually.

3.2.2 Drawback of Existing System

- Normally records are maintained in the mobile application so that can get Crash or can be down sometimes.
- In many system all data are store in the paper it all done by paper work so in flood or any other way the data can be lost so its better way that data are store in database if the data lose than it can get back up by the server.so it become easy to store an get data from the server.
- Our System Can't Work on iOS based Devices.

3.3 System Planning

3.3.1 Feasibility Study

- The entire project we feasible provide that unlimited resources and infinite time are available.
- Especially computer based systems are likely to bind by limited resources as well as time feasibility and risk analysis is related in many ways. If the risk is grater the feasibility of producing quality system is reduced.
- The purpose of the feasibility study is to produce a feasibility study document that evaluates the costs and benefits of the proposed system.
- The first is necessary to analyse the problem of that is in old system.
- Based on the definition of the problem during the preliminary analysis we analyse cost and delivery date.
- Thus feasibility study analysis whether development is whether while and if so which development process should followed
    - Technical feasibility
    - Schedule feasibility
    - Economically feasibility
    - Operational feasibility

3.3.1.1 Technical Feasibility

- This application requires that much of highs and advanced technology. It require database interaction this can be easily done.
- System should be expandable configurable and also system would guarantee accuracy and data security.
- The technical feasibility work for this project is done with the present equipment manual procedures, existing software technology and available technology hardware.
- In technical feasibility requirement is to run system better

3.3.1.2 Schedule Feasibility

- We had given 4 months of time to develop a system. This amount of time is much sufficient to us for developing the system required by organization and according to the system and according to the system requirements.
- We able to finish the total requirements of the system in time given by the company.

3.3.1.3 Economic Feasibility

- The material wastage by the manual system needs to be eliminated.
- The cost of the manual system will be reduced.
- All the developing software are open source so it easily available on internet so it not needs to pay for the licence version of OS.

3.3.1.4 Operational Feasibility

- The computerized service management system it will not be incorrect as compared to the manual system.
- This user will not worry about the errors in same report. His/his fears about the complex system would be avoided. The importance document will be secure.
- This will not be involved into the complex report preparation procedure. The system will be configured and as generic as possible.
- It will work any full efficiency and accuracy as used to work any particular computer.

3.3.1.5 Financial and Economic Feasibility

- Among the most important issue in feasibility study is cost benefit analyses, an assessment of the economic justification for a mobile based should be a good investment for the organization .The financial benefit must be justified by the cost. The financial and economic issues raised during preliminary investigation are as followed.
- Cost of conducting system study and investigation is justified since the system development is in-house.

3.3.2 Requirement Analysis & Data Gathering

Requirement Gathering

- Requirement gathering is the base part of system planning. Most of the basic and hider requirement need to be studied if also includes user's system and hardware requirement.
- Requirement gathering means collecting and understanding by all entire related requirements by all possible sources, by discussing with the user is the possible and easiest source of requirement gathering.
- To understand the natures of software to be build. The software engineer must understand the information domain for the software as the required function, behaviour, platform and interface.

- Free flow of ideas made us understand the benefit of system, the approached to be used to meet the desired objectives. Our motto was to develop a quality product so we laid emphasis on quality control right from the time when we understand the concept.

- As such there is no existing of any equivalent application. They all are fully R&D based application. All kind of requirement is defined. Some kind of suggestion was invited from people.

- This system basically targets to public so it is good for us to consider people requirement some most important criteria on which we have built the application

3.4 Proposed System

3.4.1 Scope:

- After collecting all of the detailed information from its user services are provided to its user with the following scope.
    - This System shall use by only android devices.
    - Our system can use by education Institute or high school.
    - Administrator, faculties and students can use the system as per restriction.
    - Our system can use by multiple department by having separate database.
    - User can join with this application by just download it from the play store.
    - User Authentication is key element of use login security. User get verified by One-Time-Password on first login and if forgot password.

3.4.2 Constraints:

Hardware Constraints

- This application works fine under hardware supported by all kinds of android phones. The applications are made for android platform only. Currently the application are working fine for HTC G,HTC Nexus, HTC Magic, Motorola Droid, Motorola Back flip, Samsung Galaxy and all available android based phone available in market. Screen size for the application must be as per android support.

Software Constrains

- This application works fine for Smart phones having Android Operating System with the OS version 4.1 and above. They all are well tested for android OS version 4.1. So any version below 4.1 cannot able to run this application.

3.4.3 Expected Modules:

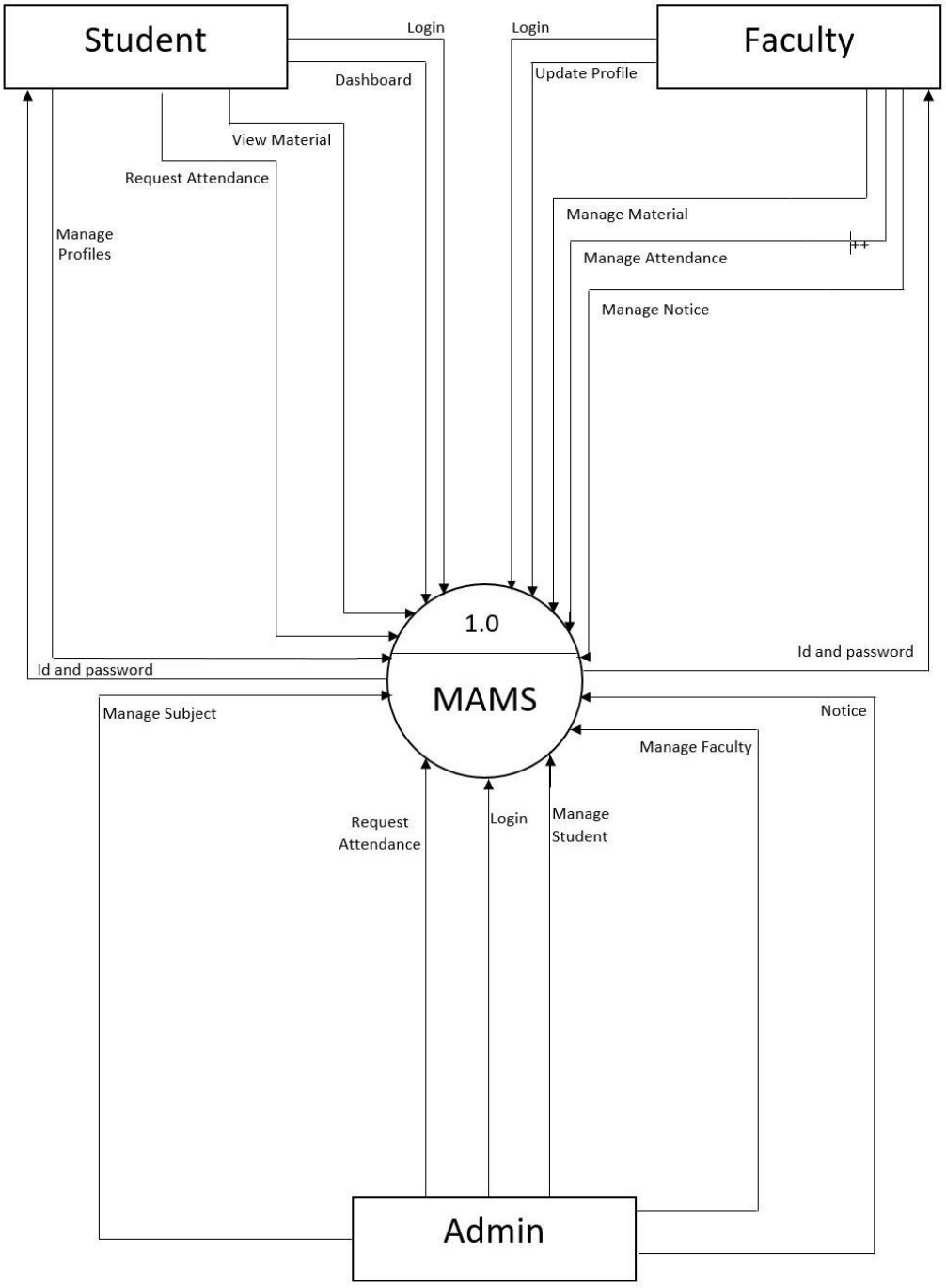
- Admin, Faculties and Student can sign in by using login information and if verified by On-Time-Password on registered mobile number.
- Admin can manage account of faculties and student.
- Admin can allocate subject to particular faculty.
- Admin and Faculties can manage notice on dashboard with several restrictions.
- Faculties can share material of their respective subject, which can download by student.
- Each Faculty can manage attendance of their own subjects and based on that report will be generated.
- Administrator can view attendance report of students based on selected gap of dates or whole semester.
- Faculties can view attendance report of students based on selected gap of dates or whole semester of their respected subjects.
- Students can view attendance report based on their subjects.

Chapter – 4

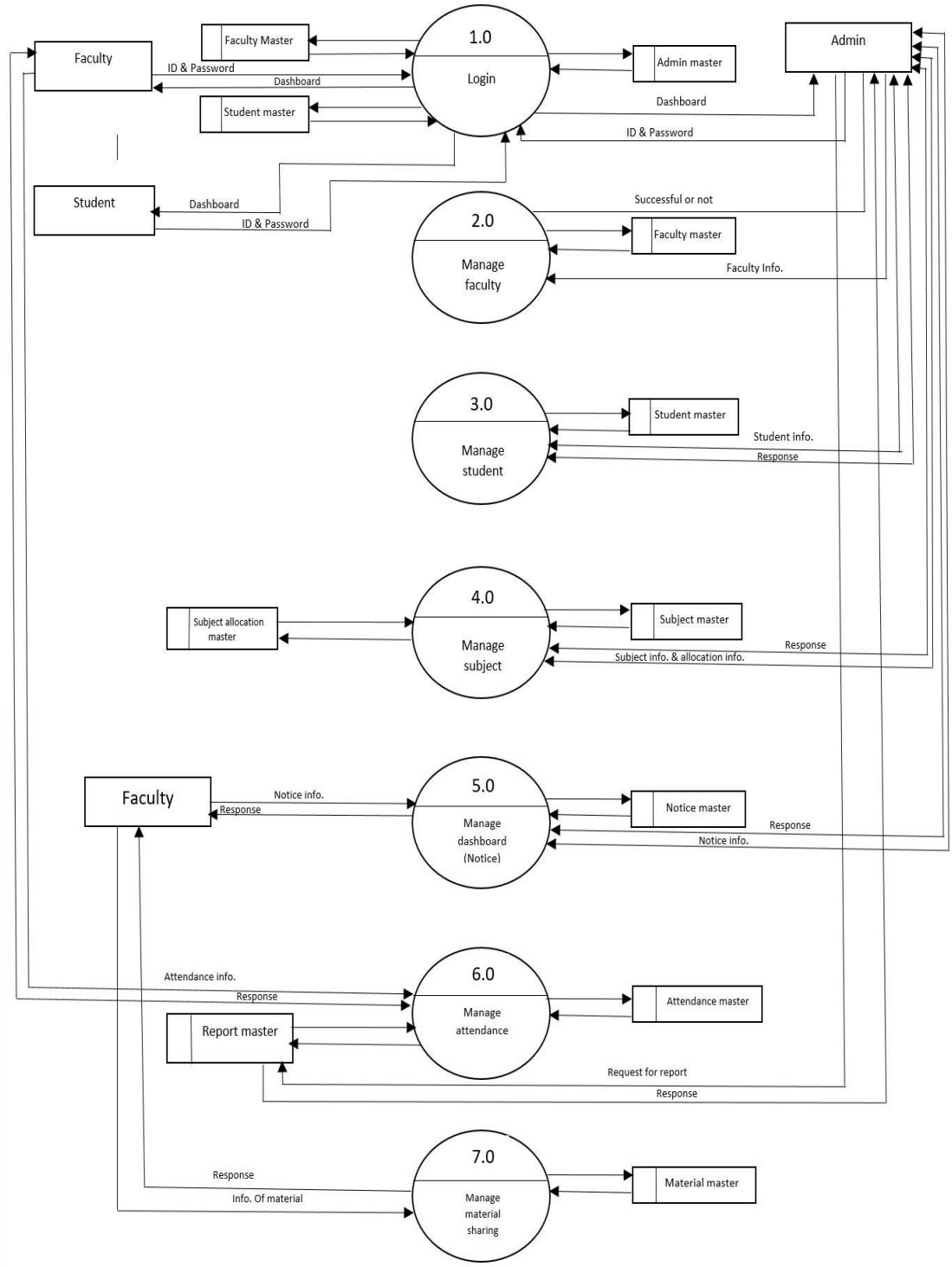
The whole Industrial process and problem study

4.1 Data-Flow Diagram

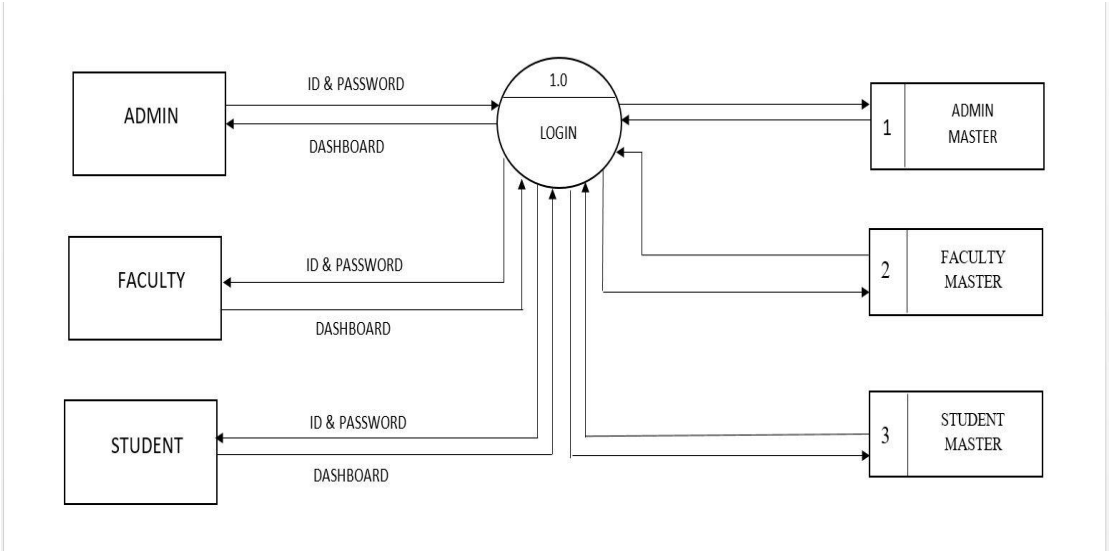
- **Level-0**

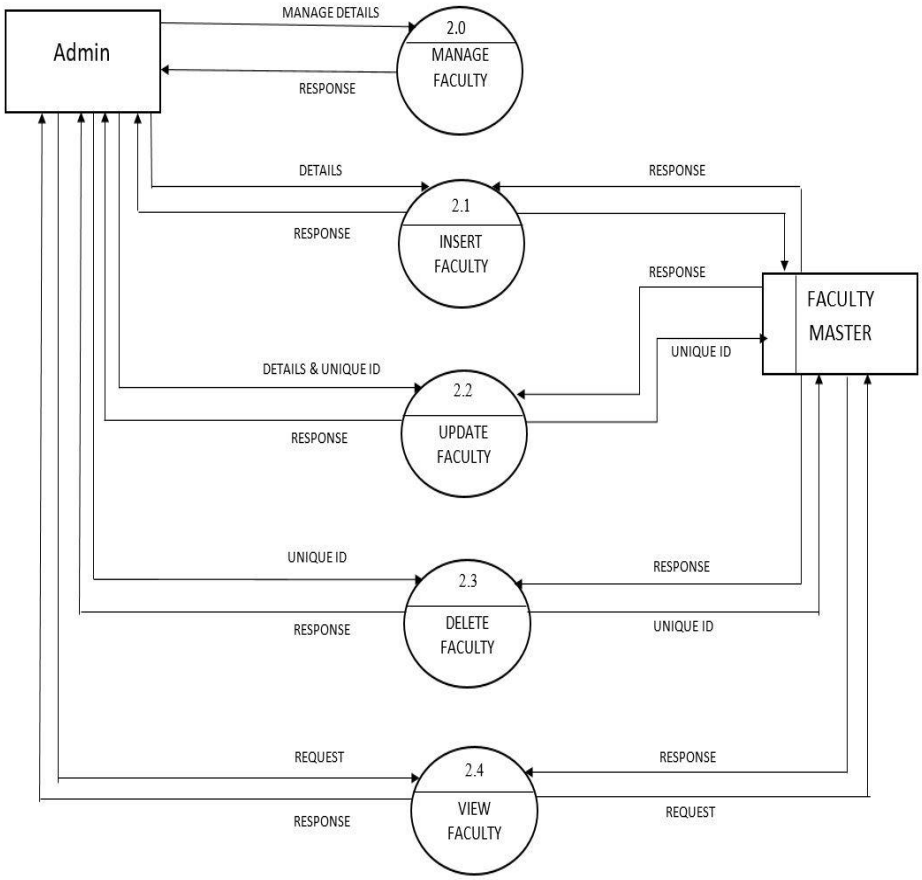


➢ Level-1:


Faculty
Faculty Master
ID & Password
Dashboard
Student master
1.0
Login
Admin master
Admin
Dashboard
ID & Password
Student
Dashboard
ID & Password
2.0
Manage faculty
Successful or not
Faculty master
Faculty Info.
3.0
Manage student
Student master
Student info.
Response
Subject allocation master
4.0
Manage subject
Subject master
Response
Subject info. & allocation info.
Faculty
Notice info.
Response
5.0
Manage dashboard (Notice)
Notice master
Response
Notice info.
Attendance info.
Response
Report master
6.0
Manage attendance
Attendance master
Request for report
Response
Response
Info. Of material
7.0
Manage material sharing
Material master

➢ Level-2:


ADMIN
ID & PASSWORD
DASHBOARD
1.0
LOGIN
1
ADMIN MASTER
FACULTY
ID & PASSWORD
DASHBOARD
2
FACULTY MASTER
STUDENT
ID & PASSWORD
DASHBOARD
3
STUDENT MASTER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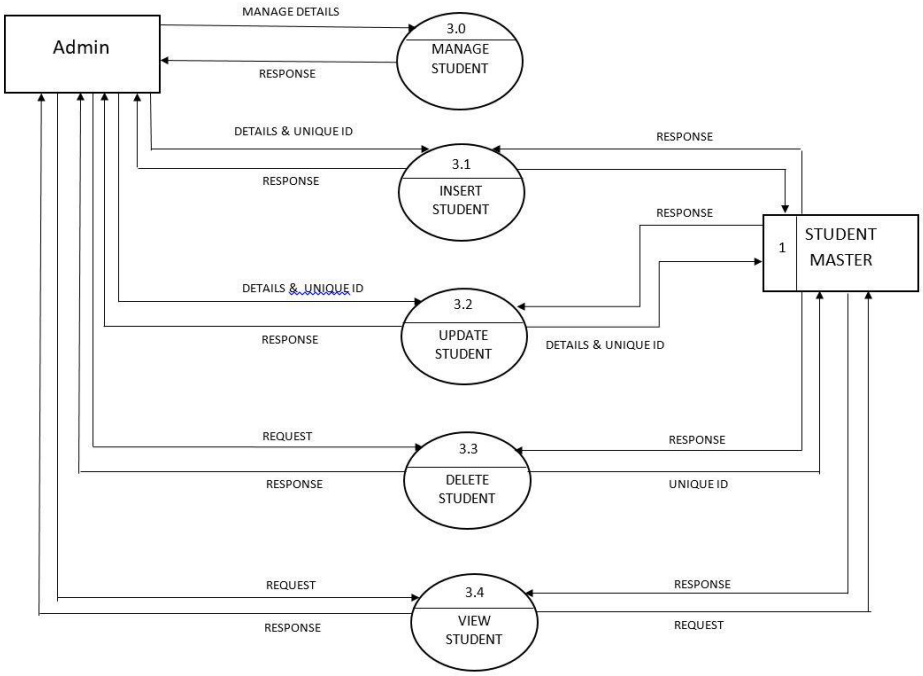
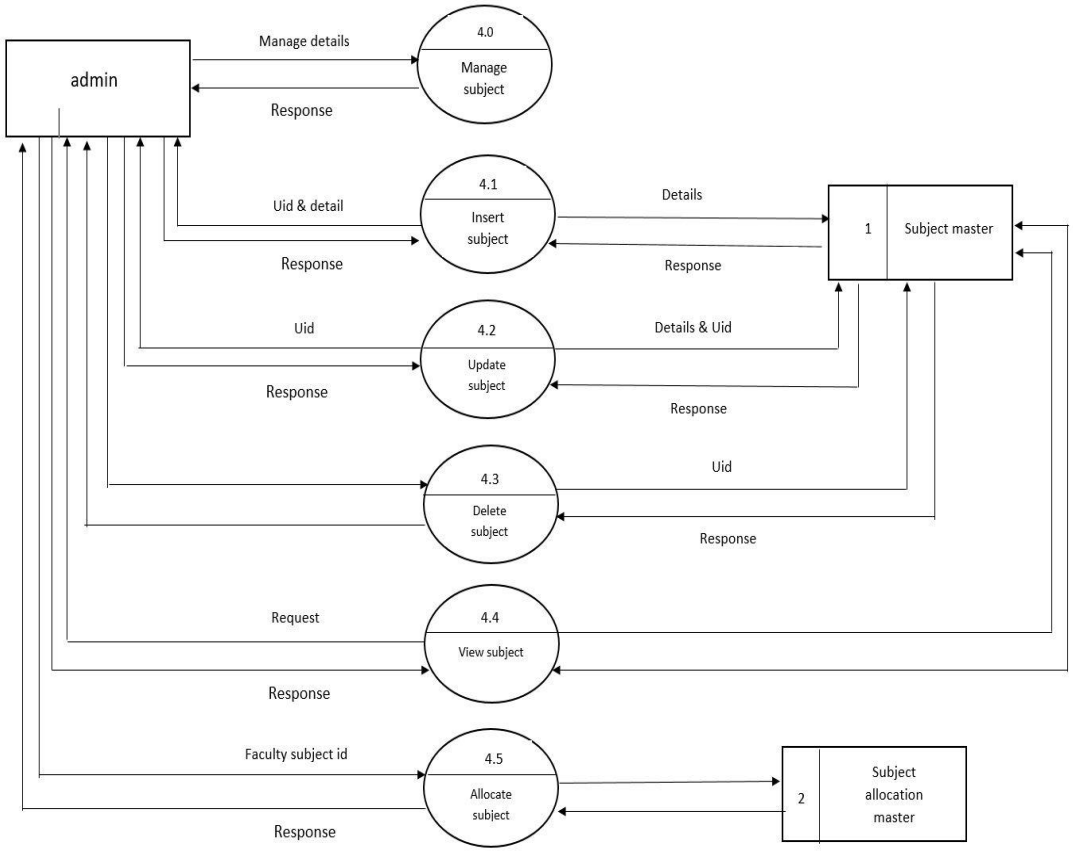
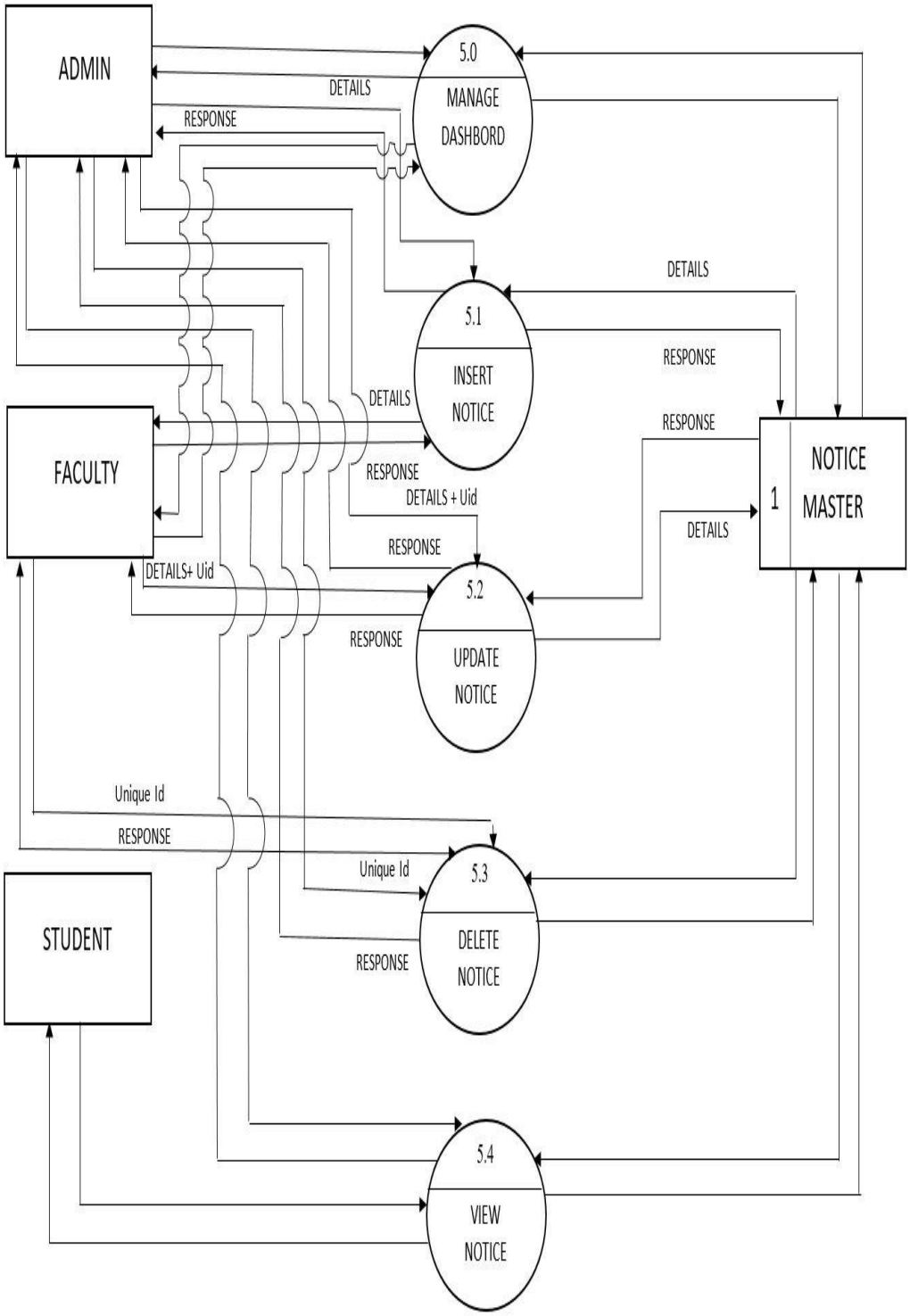
MANAGE DETAILS
RESPONSE
2.0
MANAGE FACULTY
DETAILS
RESPONSE
2.1
INSERT FACULTY
RESPONSE
RESPONSE
FACULTY MASTER
UNIQUE ID
DETAILS & UNIQUE ID
RESPONSE
2.2
UPDATE FACULTY
UNIQUE ID
RESPONSE
2.3
DELETE FACULTY
RESPONSE
UNIQUE ID
REQUEST
RESPONSE
2.4
VIEW FACULTY
RESPONSE
REQUEST


Admin
MANAGE DETAILS
RESPONSE
3.0
MANAGE STUDENT
DETAILS & UNIQUE ID
RESPONSE
3.1
INSERT STUDENT
RESPONSE
1
STUDENT MASTER
DETAILS & UNIQUE ID
RESPONSE
3.2
UPDATE STUDENT
DETAILS & UNIQUE ID
REQUEST
RESPONSE
3.3
DELETE STUDENT
RESPONSE
UNIQUE ID
REQUEST
RESPONSE
3.4
VIEW STUDENT
RESPONSE
REQUEST


admin
Manage details
Response
4.0
Manage subject
Uid & detail
Response
4.1
Insert subject
Details
Response
1
Subject master
Uid
Response
4.2
Update subject
Details & Uid
Response
4.3
Delete subject
Uid
Response
Request
Response
4.4
View subject
Faculty subject id
Response
4.5
Allocate subject
2
Subject allocation master


ADMIN
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MANAGE
DASHBORD
DETAILS
RESPONSE
DETAILS
5.1
INSERT
NOTICE
RESPONSE
RESPONSE
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1
NOTICE
MASTER
DETAILS
RESPONSE
DETAILS+ Uid
5.2
UPDATE
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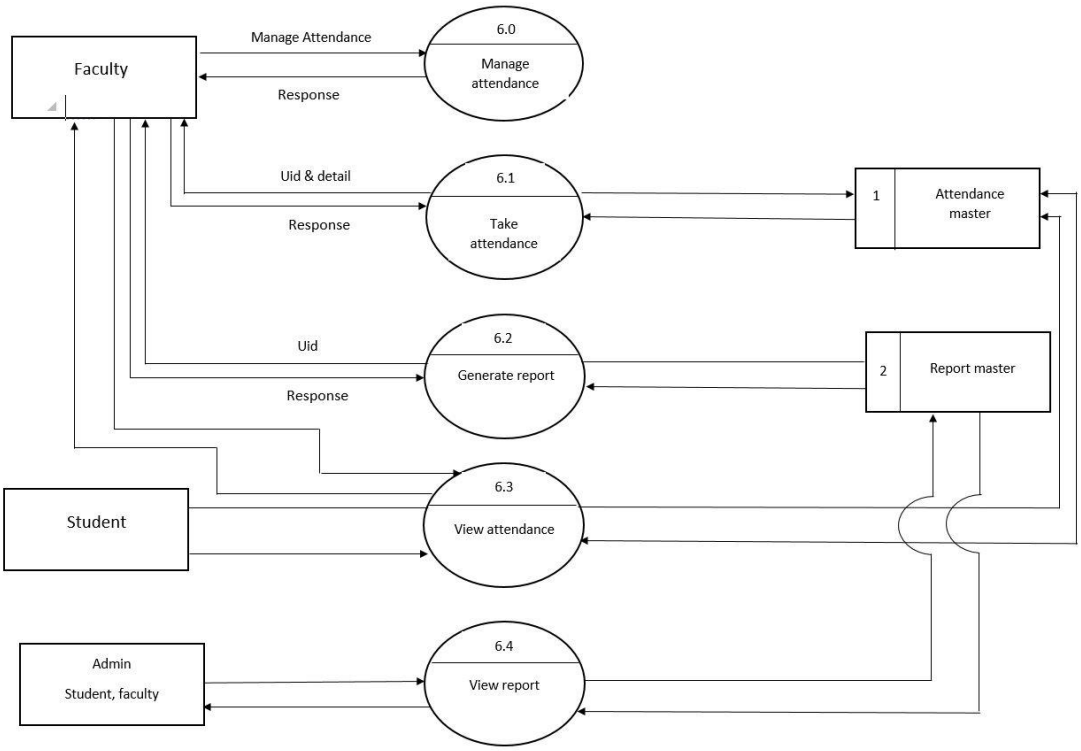
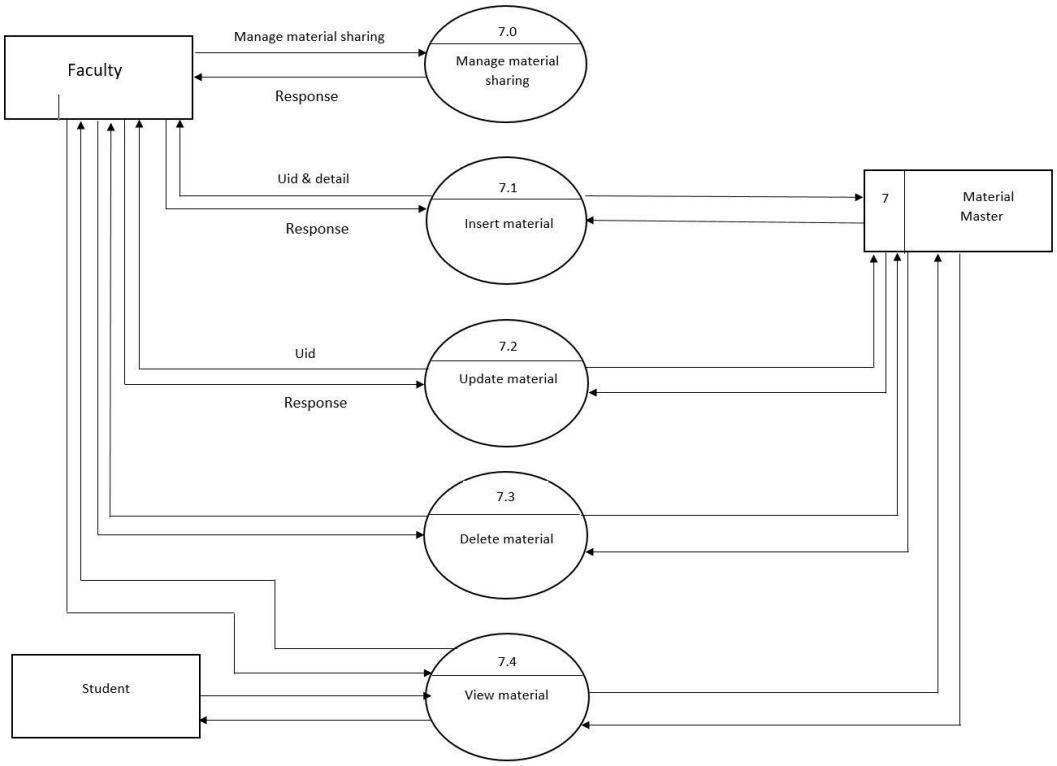
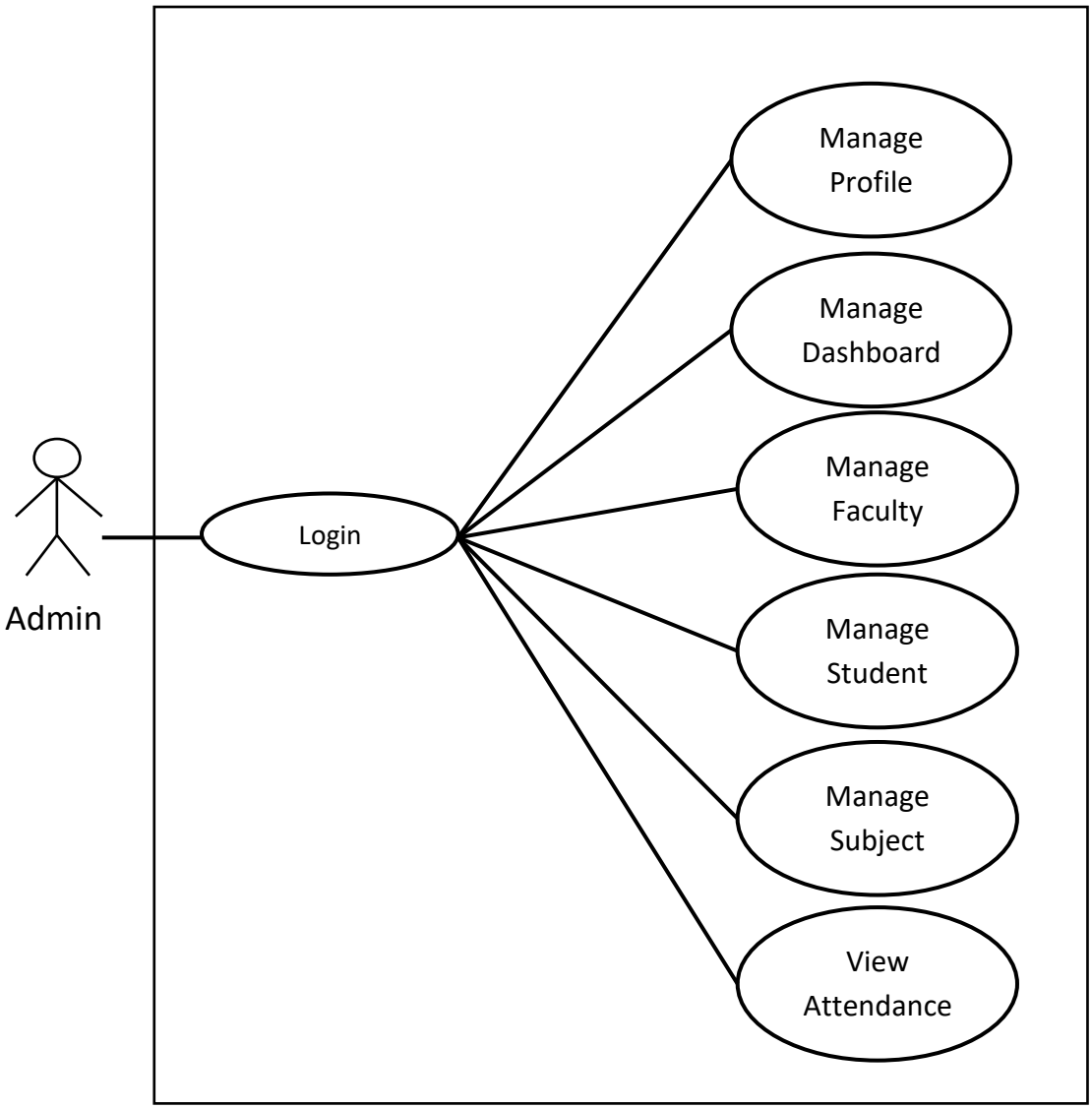
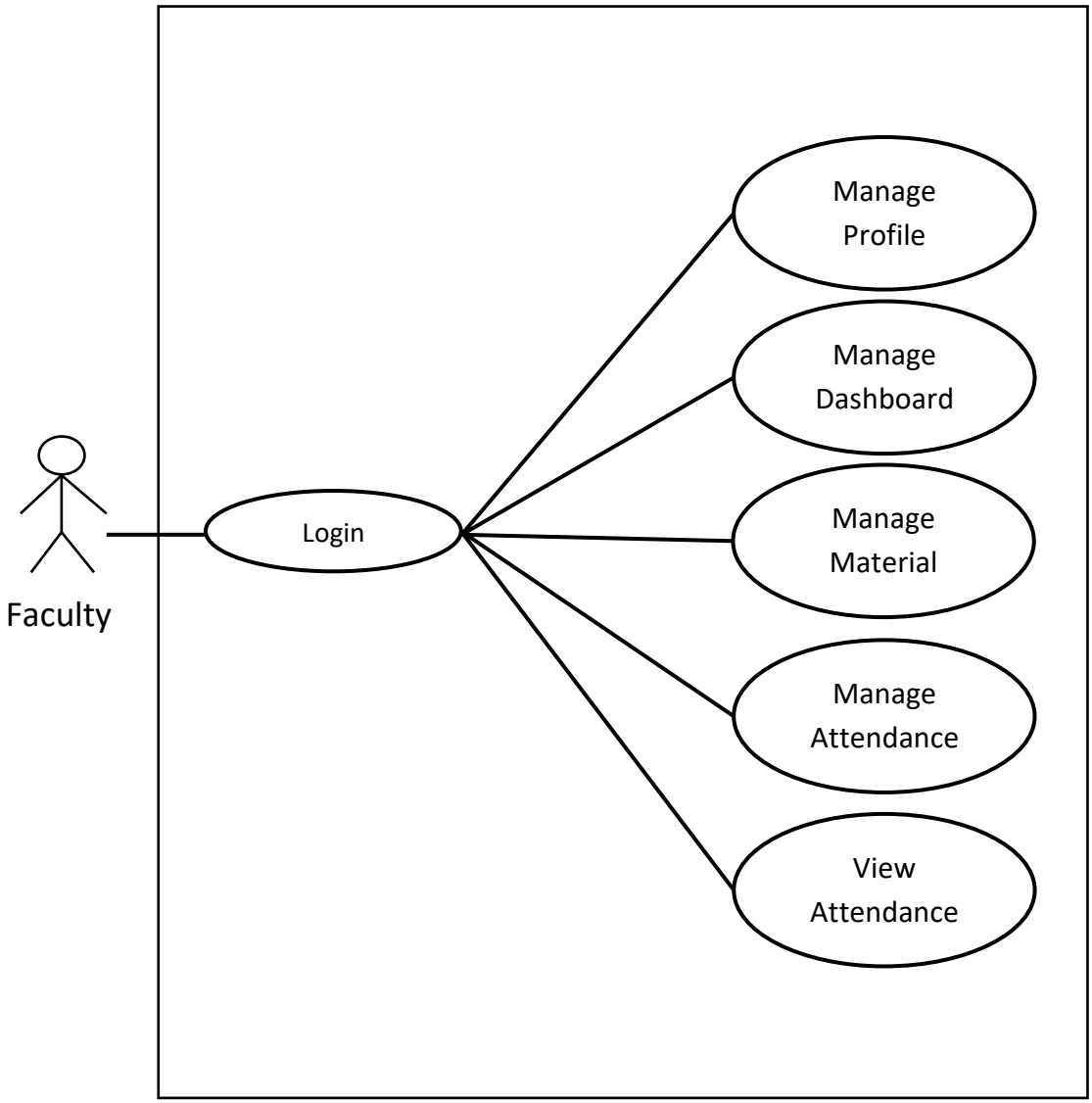
RESPONSE
Unique Id
5.3
STUDENT
DELETE
NOTICE
RESPONSE
5.4
VIEW
NOTICE

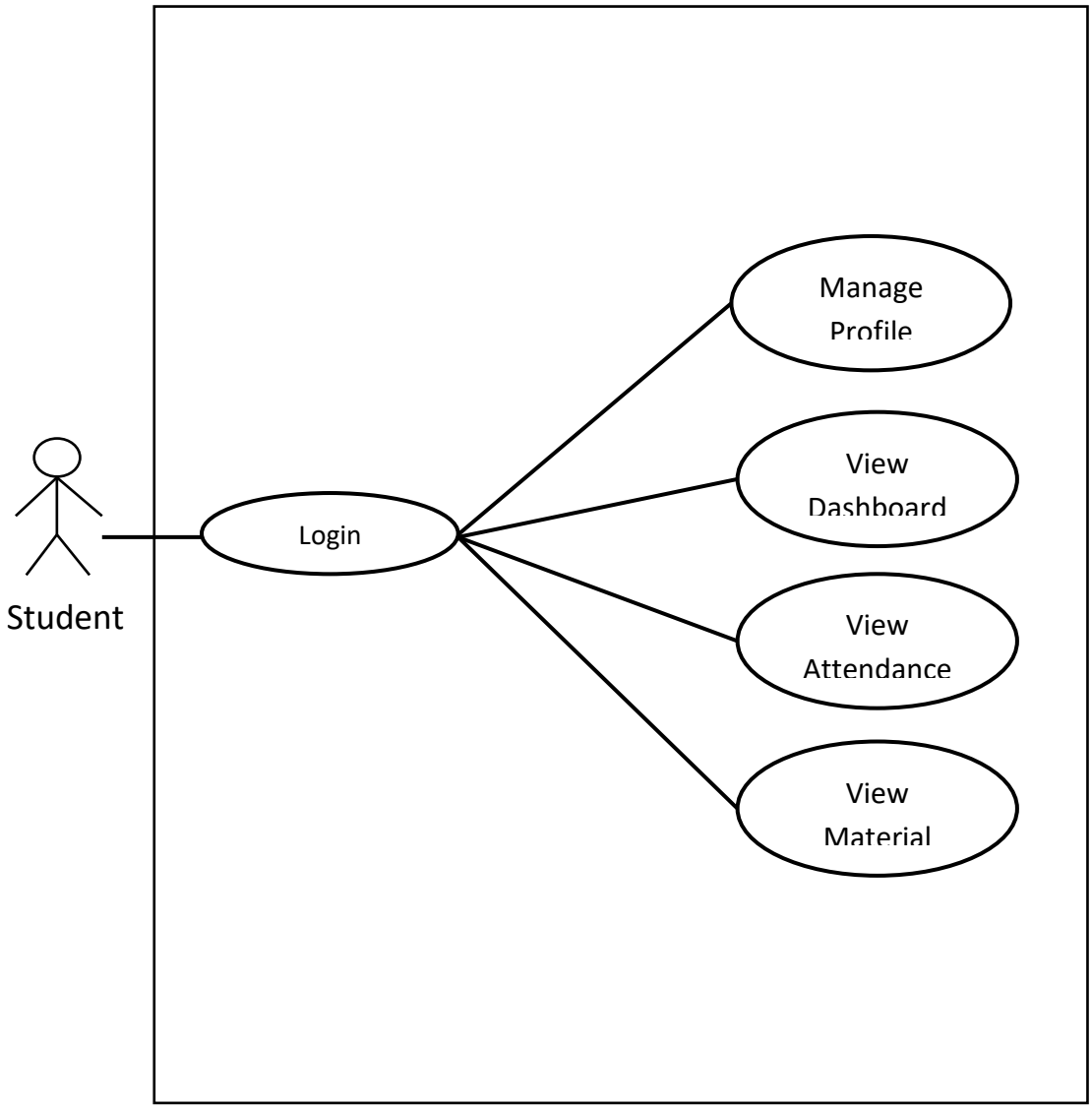

Faculty
Manage Attendance
Response
6.0
Manage attendance
Uid & detail
Response
6.1
Take attendance
1
Attendance master
Uid
Response
6.2
Generate report
2
Report master
Student
6.3
View attendance
Admin
Student, faculty
6.4
View report


Faculty
Manage material sharing
Response
7.0
Manage material sharing
Uid & detail
Response
7.1
Insert material
7
Material Master
Uid
Response
7.2
Update material
7.3
Delete material
Student
7.4
View material

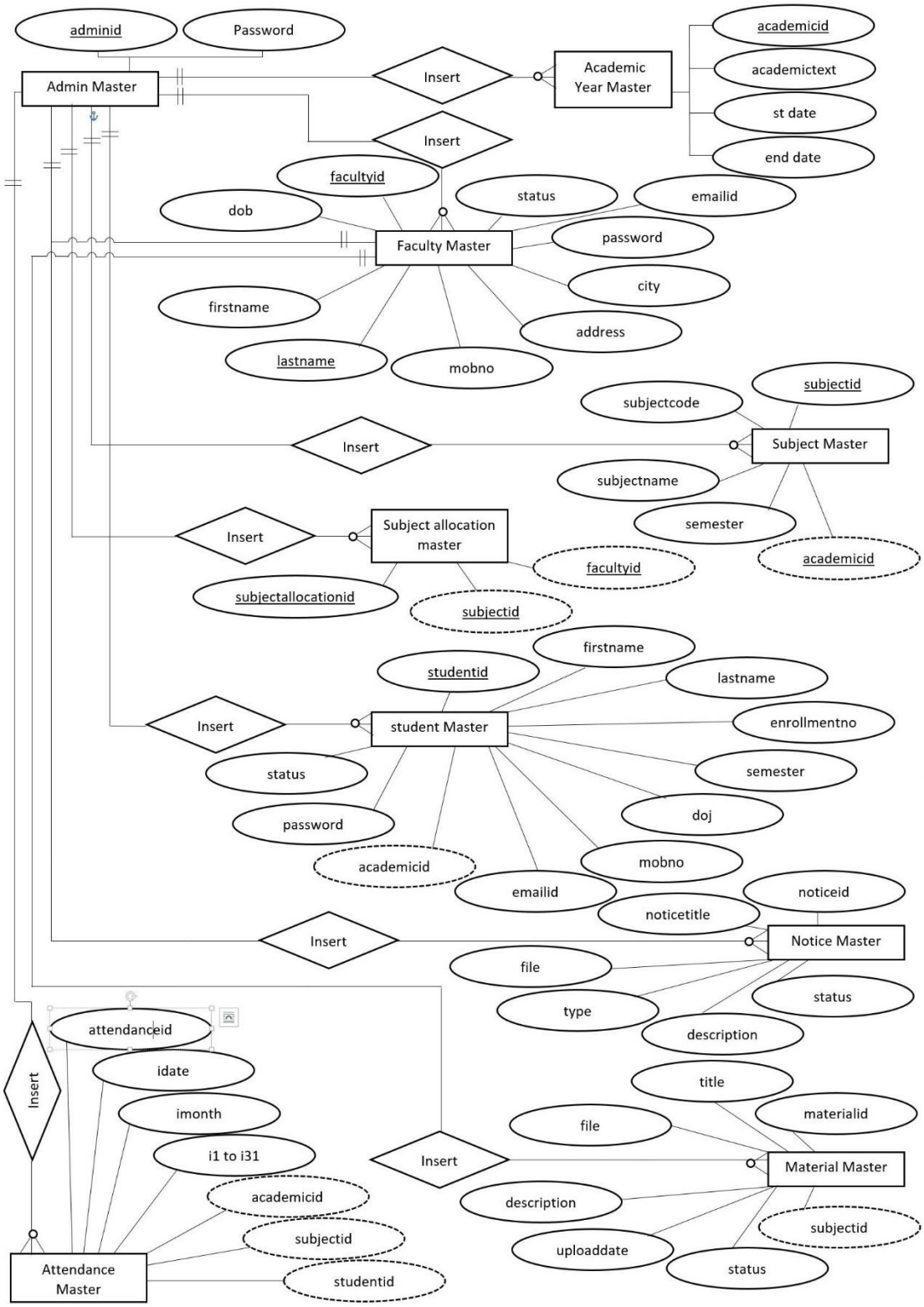
4.2 Use -Case Diagram




Manage
Profile
Manage
Dashboard
Manage
Material
Manage
Attendance
View
Attendance
Login
Faculty


Manage Profile
View Dashboard
View Attendance
View Material
Login
Student

4.3 Entity Relationship Diagram



4.4 Data dictionary:

- **Admin Master:**

Name	Datatype	Size	Remarks
Adminid	Varchar	20	Primary key
Password	Varchar	20	Not Null

- **Faculty_Master:**

Name	Datatype	Size	Remarks
Facultyid	Int	9	Auto increment, Primary Key
Firtname	Varchar	20	Not Null
Lastname	Varchar	20	Not Null
Dob	Varchar	20	Not Null
Doj	Varchar	20	Not Null
Mobno	BigInt	10	Unique Key, Not Null
Emailid	Varchar	50	Unique Key, Not Null
Address	Varchar	100	Not Null
city	Varchar	20	Not Null
Password	Varchar	20	Not Null
Status	Varchar	20	Not Null
dpurl	Varchar	500	
Authenticated	Int	1	Not Null, Default 0

➢ Student_Master:

Name	Type	Size	Remarks
Studentid	Int	11	Auto Increment, Primary key
Enrollmentno	Bigint	12	Not Null
Firstname	Varchar	20	Not Null
Lastname	Varchar	20	Not Null
Dob	Varchar	20	Not Null
Mobno	Bigint	10	Not Null
Emailid	Varchar	50	Not Null
Address	Varchar	100	Not Null
City	Varchar	20	Not Null
Doj	Varchar	20	Not Null
Dol	Varchar	20	
Semester	Int	10	Not Null
Academicid	Int	10	Foreign Key
Password	Varchar	20	Not Null
Status	Varchar	20	Not Null
dpurl	Varchar	500	
Authenticated	Int	1	Not Null, Default 0

- **Subject_Master:**

Name	Datatype	Size	Remarks
subjectid	Int	10	AutoIncrement, Primary Key
Subject_code	Int	10	Not Null
Subject_name	Varchar	20	Not Null
Subject_sem	Int	10	Not Null
Academic_id	Int	11	Not Null

- **subject_allocation_master:**

Name	Datatype	Size	Remarks
subjectallocationid	int	10	AutoIncrement, Primary Key
Subjectid	int	10	Foreign Key
Facultyid	int	10	Foreign Key

- **Academic_year_Master:**

Name	Data Type	Size	Remarks
Academicid	Int	9	AutoIncrement, Primary Key
Academic_text	Varchar	20	Unique Key, Not Null
Start_date	Varchar	20	Not Null
End_date	Varchar	20	Not Null

- **Notice_Master:**

Name	Datatype	Size	Remarks
Noticeid	Int	11	AutoIncrement, Primary Key
Notice_title	Varchar	200	Not Null
Notice_discription	Varchar	2000	Not Null
Notice_Sem	Int	2	Not Null
Notice_date	Varchar	20	Not Null
Notice_status	Varchar	20	Not Null
Notice_type	Varchar	10	Not Null
Noticeby	Varchar	20	Not Null
Noticefile	Varchar	70	
Notice_size	Varchar	20	

➢ Material_Master:

Name	Datatype	Size	Remarks
Materialid	Int	11	AutoIncrement, Primary Key
Subjectid	Int	10	Not Null
Material_title	Varchar	200	Not Null
Material_discription	Varchar	2000	Not Null
Material_Sem	Int	2	Not Null
Material_fil	Varchar	70	Not Null
Material_status	Varchar	20	Not Null
Upload_date	Varchar	20	Not Null
Materialby	Varchar	20	Not Null
Material_size	Varchar	20	Not Null

➢ Attendance_Master:

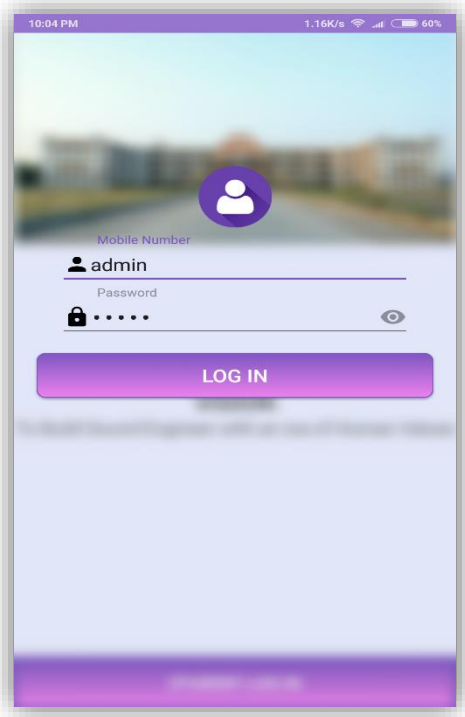
Name	Datatype	Size	Remarks
Attendanceid	Int	20	AutoIncrement, Primary Key
Studentid	Int	10	Not Null
Academicid	Int	10	Not Null
Subjectid	Int	10	Not Null
Facultyid	Int	11	Not Null
Time	Varchar	20	Not Null
Imonth	Int	2	Not Null
Iyear	Int	4	Not Null
I[1] to I[31]	Varchar	1	

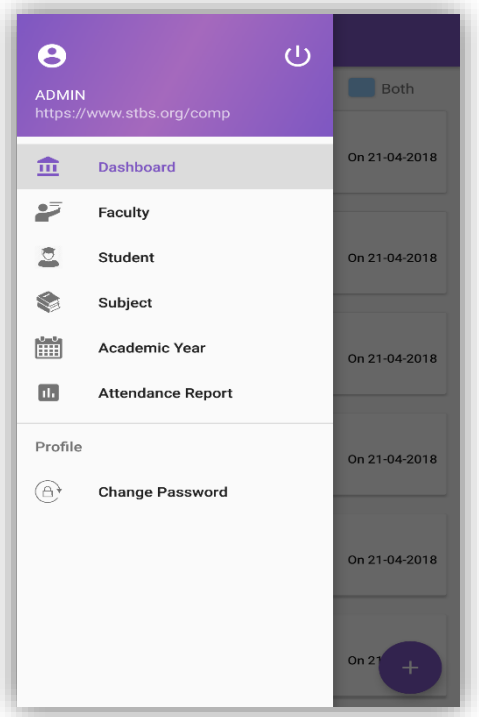
Chapter – 5

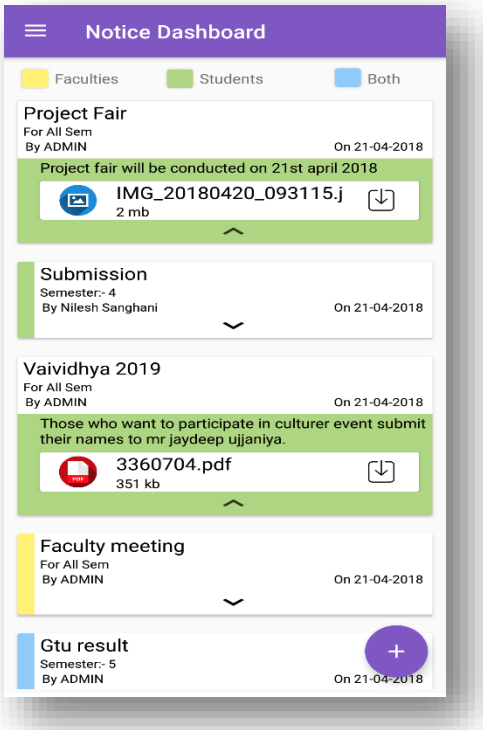
The problem solution outline

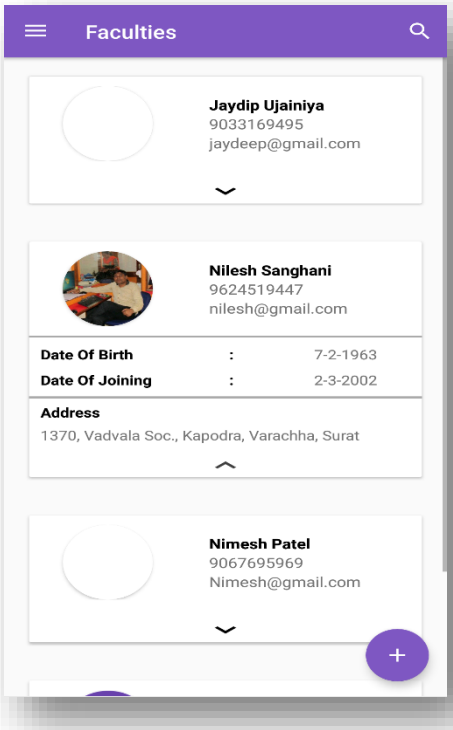
5.1 Input Design/Output Design:

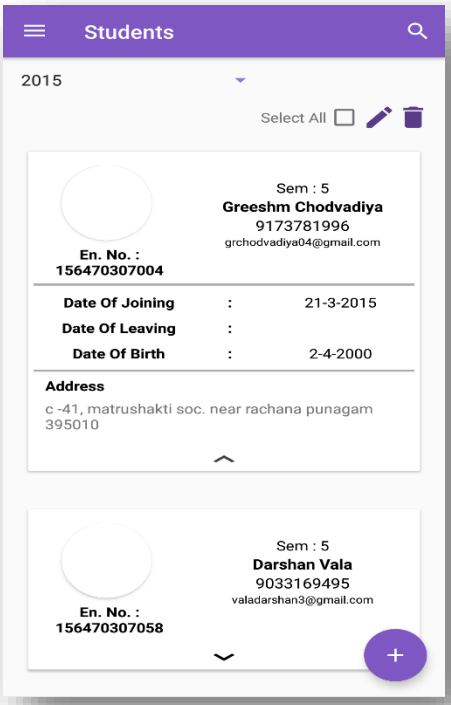
- **Admin :**

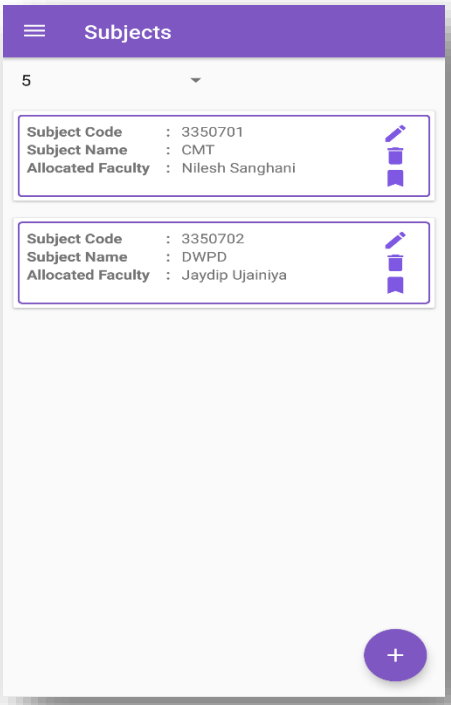









Students
2015
Select All
Sem : 5
Greeshm Chodvadiya
9173781996
grchodvadiya04@gmail.com
En. No. :
156470307004
Date Of Joining : 21-3-2015
Date Of Leaving :
Date Of Birth : 2-4-2000
Address
c -41, matrushakti soc. near rachana punagam 395010
Sem : 5
Darshan Vala
9033169495
valadarshan3@gmail.com
En. No. :
156470307058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5
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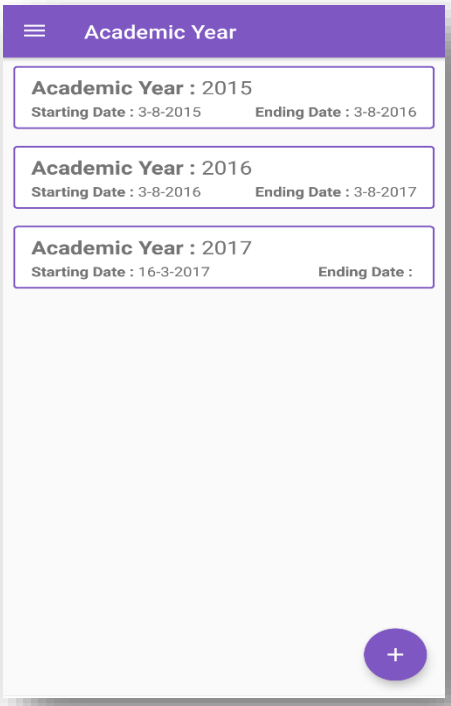
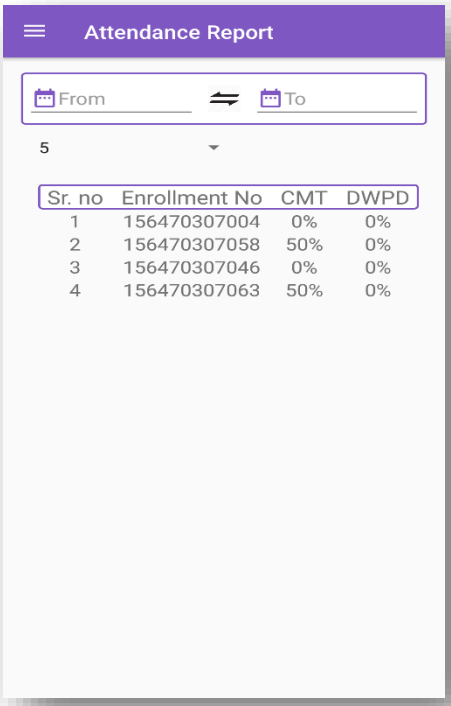
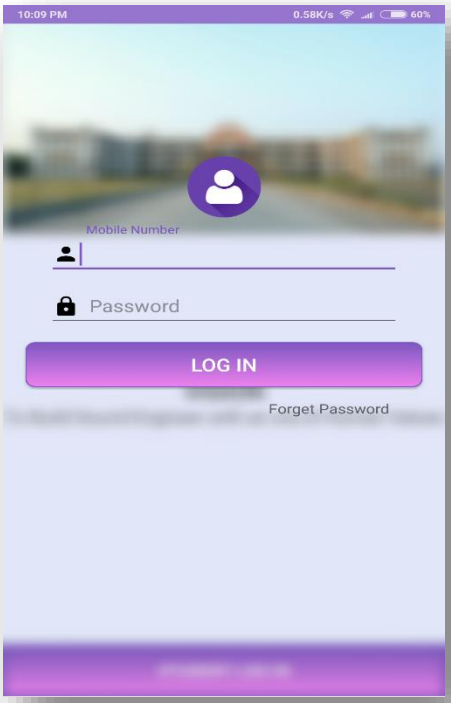
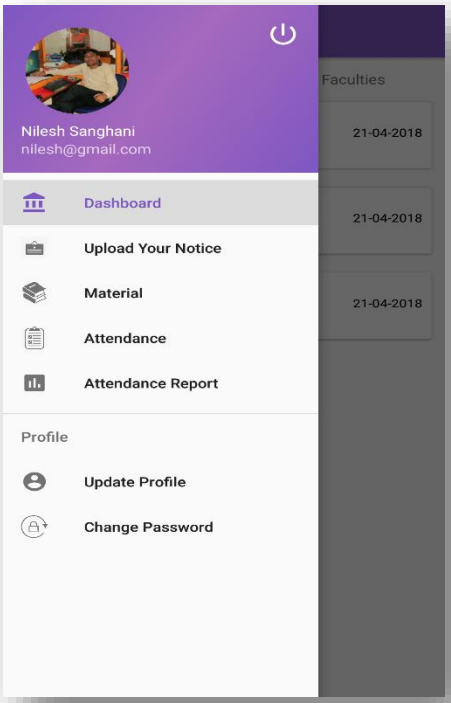
Subject Name : CMT
Allocated Faculty : Nilesh Sanghani
Subject Code : 3350702
Subject Name : DWPD
Allocated Faculty : Jaydip Ujainiya

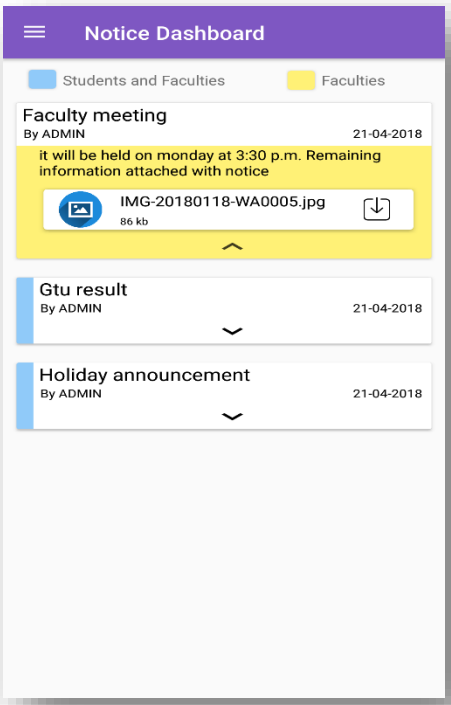

Academic Year
Academic Year : 2015
Starting Date : 3-8-2015
Ending Date : 3-8-2016
Academic Year : 2016
Starting Date : 3-8-2016
Ending Date : 3-8-2017
Academic Year : 2017
Starting Date : 16-3-2017
Ending Date :


Attendance Report
From
To
5
Sr. no Enrollment No CMT DWPD
1 156470307004 0% 0%
2 156470307058 50% 0%
3 156470307046 0% 0%
4 156470307063 50% 0%

➢ Faculty :


10:09 PM
0.58K/s
60%
Mobile Number
Password
LOG IN
Forget Password


Nilesh Sanghani
nilesh@gmail.com
Dashboard
Upload Your Notice
Material
Attendance
Attendance Report
Profile
Update Profile
Change Password
Faculties
21-04-2018
21-04-2018
21-04-2018


Notice Dashboard
Students and Faculties
Faculties
Faculty meeting
By ADMIN
21-04-2018
it will be held on monday at 3:30 p.m. Remaining information attached with notice
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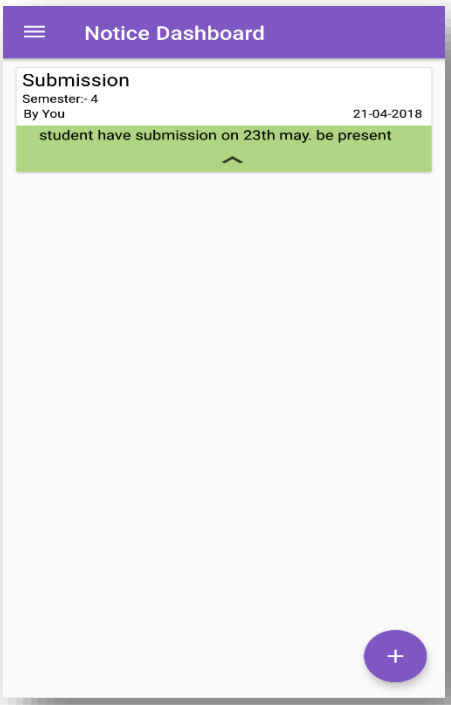
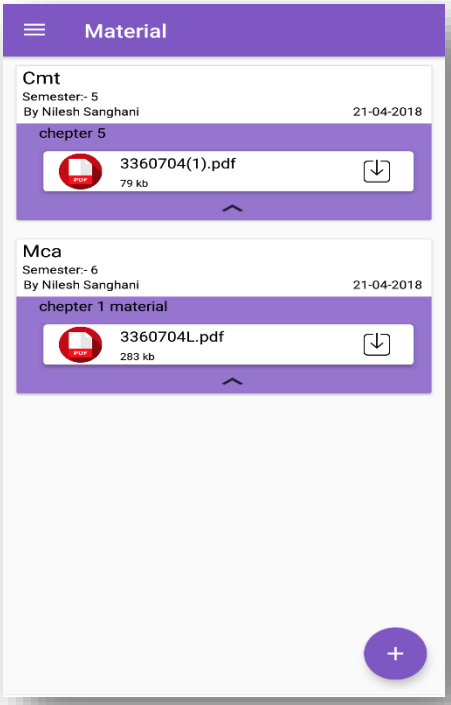
86 kb
Gtu result
By ADMIN
21-04-2018
Holiday announcement
By ADMIN
21-04-2018


Notice Dashboard
Submission
Semester:- 4
By You
21-04-2018
student have submission on 23th may. be present


Material
Cmt
Semester:- 5
By Nilesh Sanghani
21-04-2018
chepter 5
3360704(1).pdf
79 kb
Mca
Semester:- 6
By Nilesh Sanghani
21-04-2018
chepter 1 material
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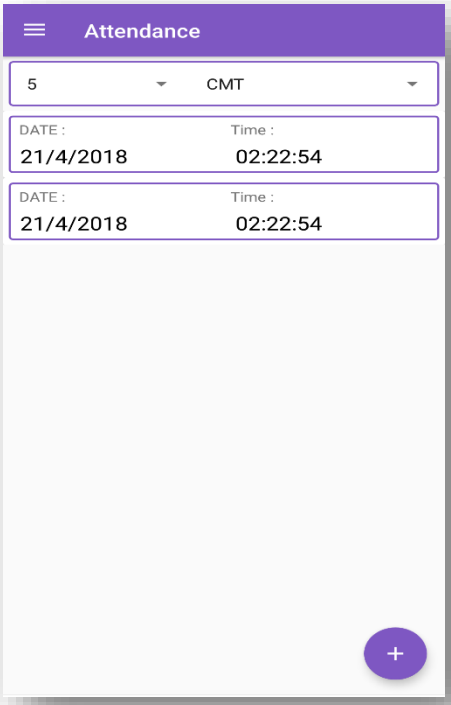
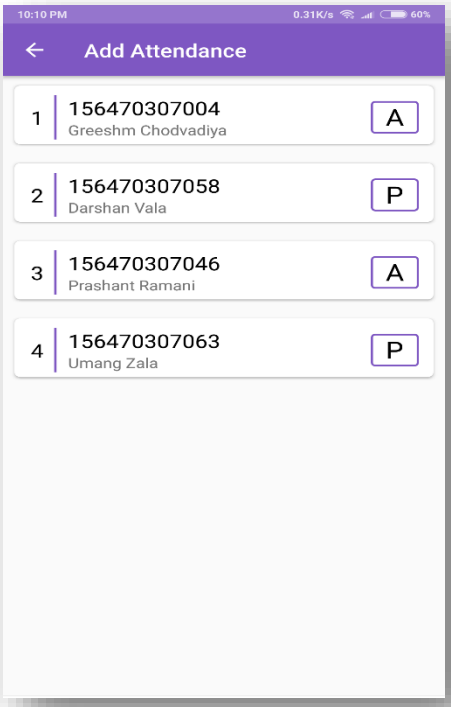
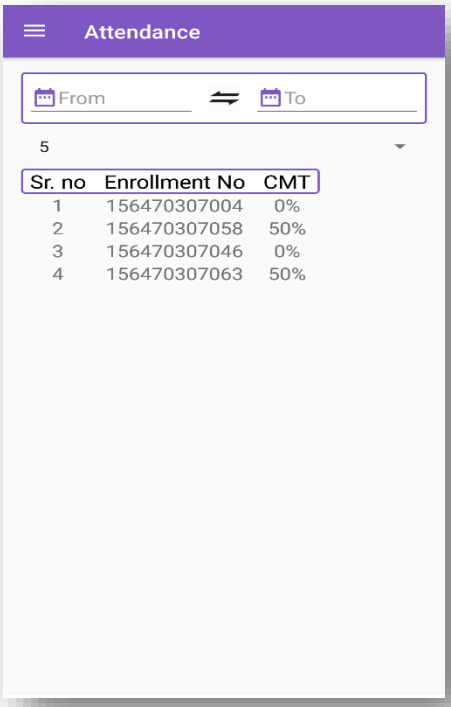
283 kb


Attendance
5
CMT
DATE :
Time :
21/4/2018
02:22:54
DATE :
Time :
21/4/2018
02:22:54


10:10 PM
0.31K/s
60%
Add Attendance
1
156470307004
Greeshm Chodvadiya
A
2
156470307058
Darshan Vala
P
3
156470307046
Prashant Ramani
A
4
156470307063
Umang Zala
P


Attendance
From
To
5
Sr. no
Enrollment No
CMT
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2
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50%
3
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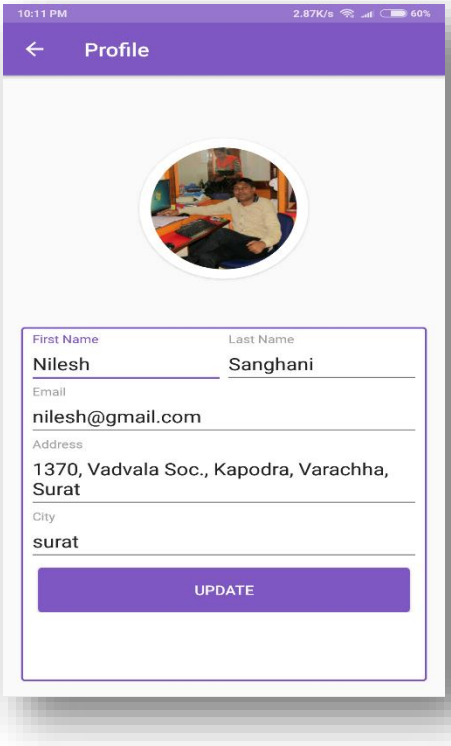
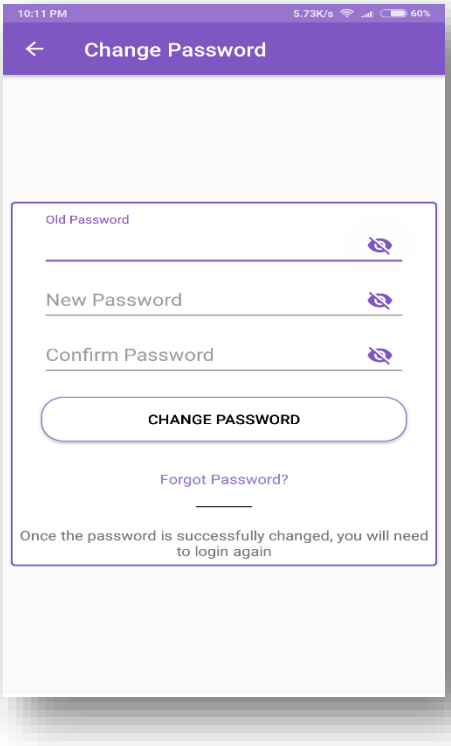
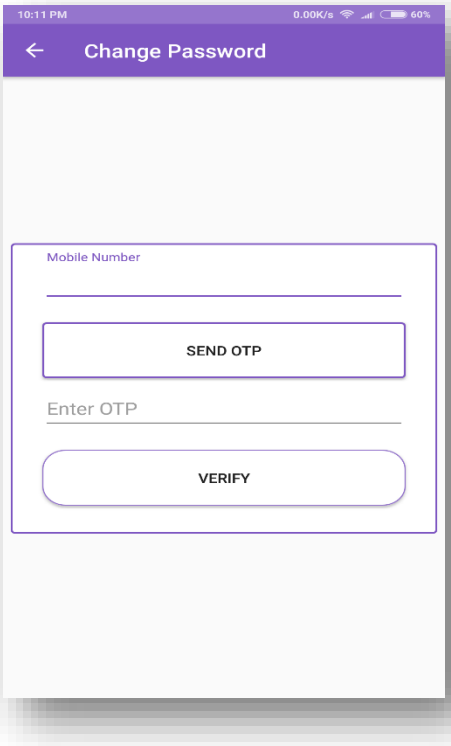
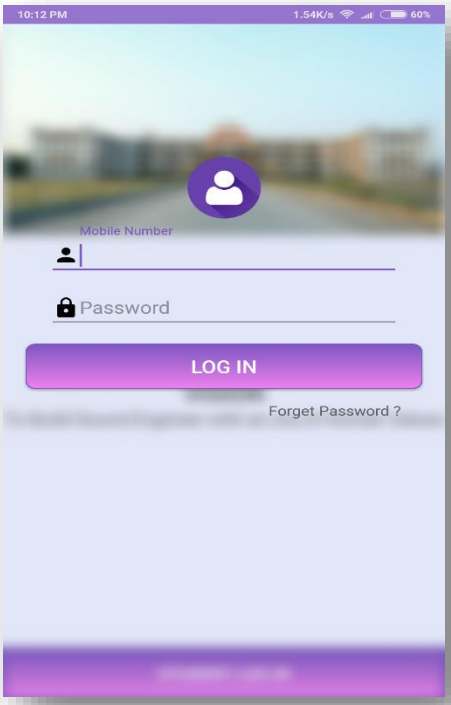
0%
4
156470307063
50%


10:11 PM
2.87K/s
60%
Profile
First Name
Nilesh
Last Name
Sanghani
Email
nilesh@gmail.com
Address
1370, Vadvala Soc., Kapodra, Varachha, Surat
City
surat
UPDATE


10:11 PM
5.73K/s
60%
Change Password
Old Password
New Password
Confirm Password
CHANGE PASSWORD
Forgot Password?
Once the password is successfully changed, you will need to login again


10:11 PM
0.00K/s
60%
Change Password
Mobile Number
SEND OTP
Enter OTP
VERIFY

➢ Student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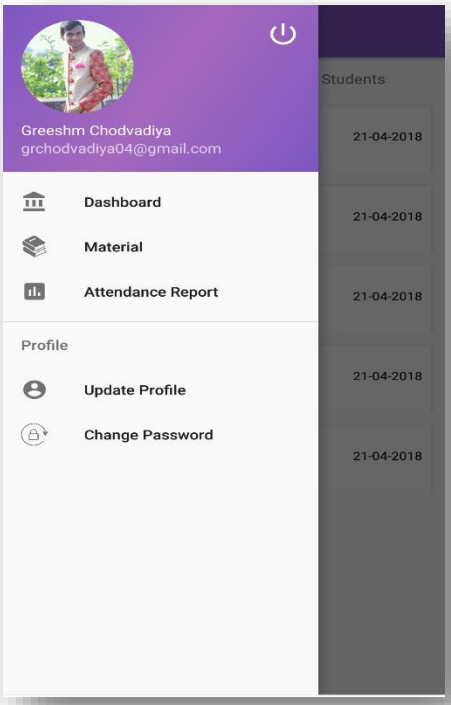
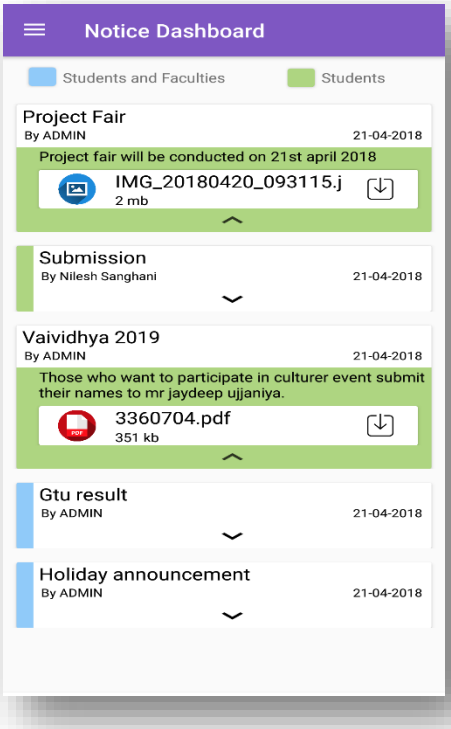
1.54K/s
60%
Mobile Number
Password
LOG IN
Forget Password ?


Greeshm Chodvadiya
grchodvadiya04@gmail.com
Dashboard
Material
Attendance Report
Profile
Update Profile
Change Password
Students
21-04-2018
21-04-2018
21-04-2018
21-04-2018
21-04-2018


Notice Dashboard
Students and Faculties
Students
Project Fair
By ADMIN
21-04-2018
Project fair will be conducted on 21st april 2018
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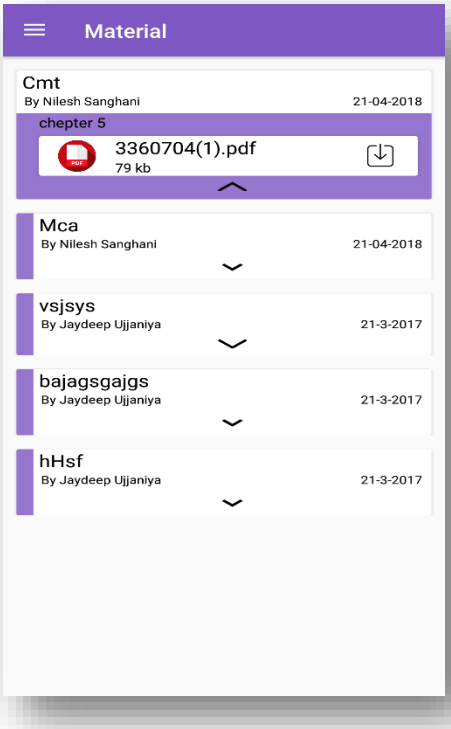
2 mb
Submission
By Nilesh Sanghani
21-04-2018
Vaividhya 2019
By ADMIN
21-04-2018
Those who want to participate in culturer event submit their names to mr jaydeep ujjaniya.
3360704.pdf
351 kb
Gtu result
By ADMIN
21-04-2018
Holiday announcement
By ADMIN
21-04-2018


Material
Cmt
By Nilesh Sanghani
21-04-2018
chepter 5
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79 kb
Mca
By Nilesh Sanghani
21-04-2018
vsjsys
By Jaydeep Ujjaniya
21-3-2017
bajagsgajgs
By Jaydeep Ujjaniya
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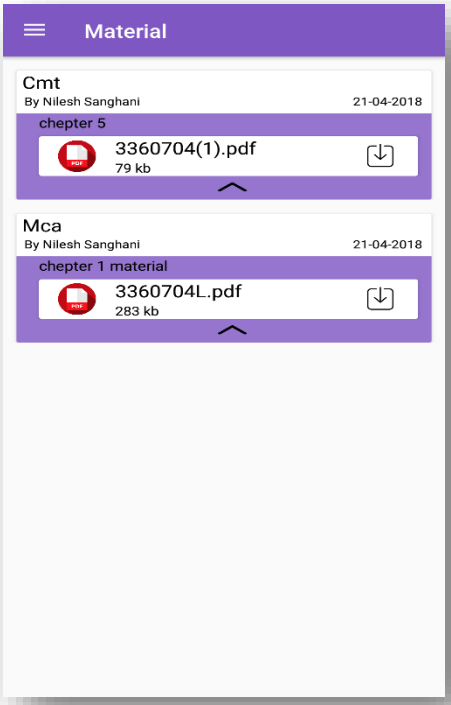
hHsf
By Jaydeep Ujjaniya
21-3-2017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By Nilesh Sanghani
21-04-2018
chepter 5
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Mca
By Nilesh Sanghani
21-04-2018
chepter 1 material
3360704L.pdf
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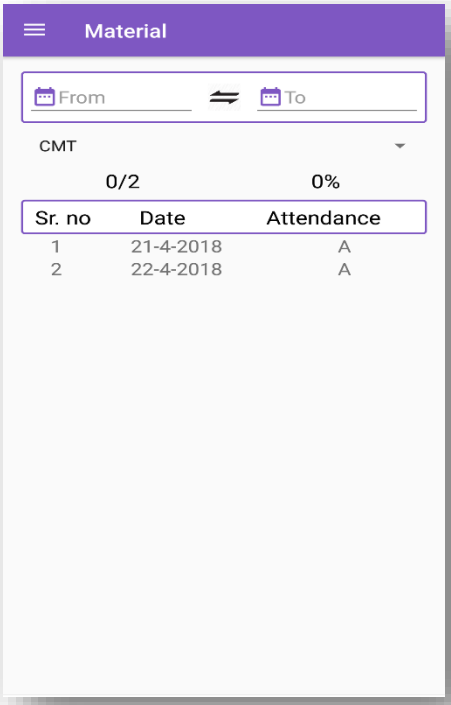
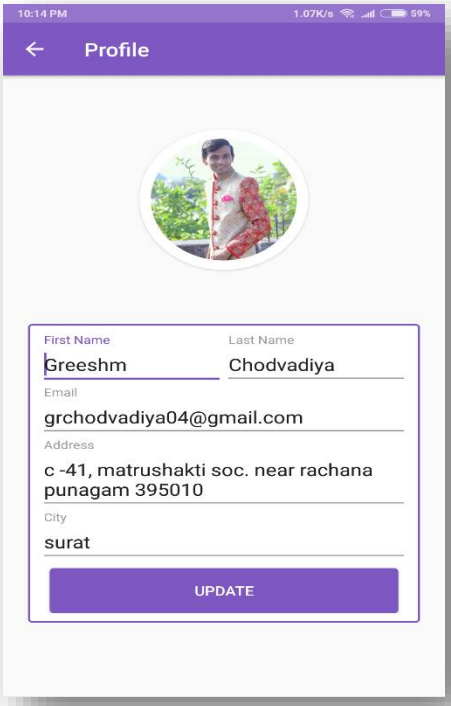
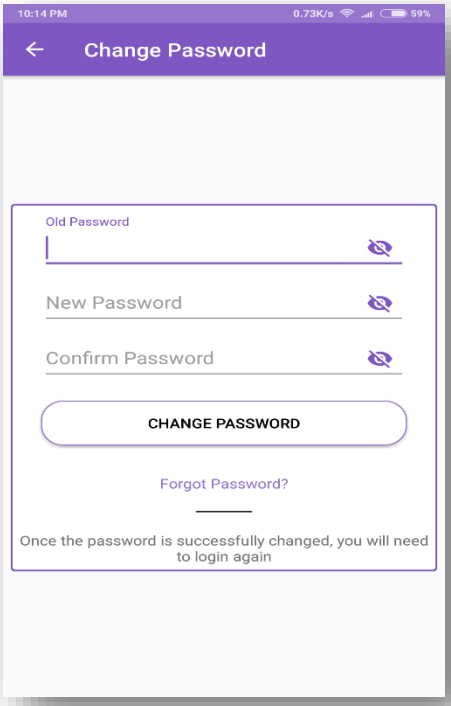

Material
From
To
CMT
0/2
0%
Sr. no
Date
Attendance
1
21-4-2018
A
2
22-4-2018
A


10:14 PM
1.07K/s
59%
Profile
First Name
Greeshm
Last Name
Chodvadiya
Email
grchodvadiya04@gmail.com
Address
c -41, matrushakti soc. near rachana punagam 395010
City
surat
UPDATE


10:14 PM
0.73K/s
59%
Change Password
Old Password
New Password
Confirm Password
CHANGE PASSWORD
Forgot Password?
Once the password is successfully changed, you will need to login again

5.3 Software Testing

Software testing is a critical element of software quality assurances and represents the ultimate review of specification, design and coding. Testing is an exposure of a system to trial input to see whether it produces current output. Testing cannot be determined whether software meets user's needs, only whether it appears to confirm to requirements. Testing can show that a system is free of errors, only that it contains error. Testing finds errors, it does not correct errors. Software success is a quality product, on time and within cost. Though testing can reveal critical mistakes. Testing should therefore,

- Validate performance.
- Detects error.
- Identify inconsistencies.

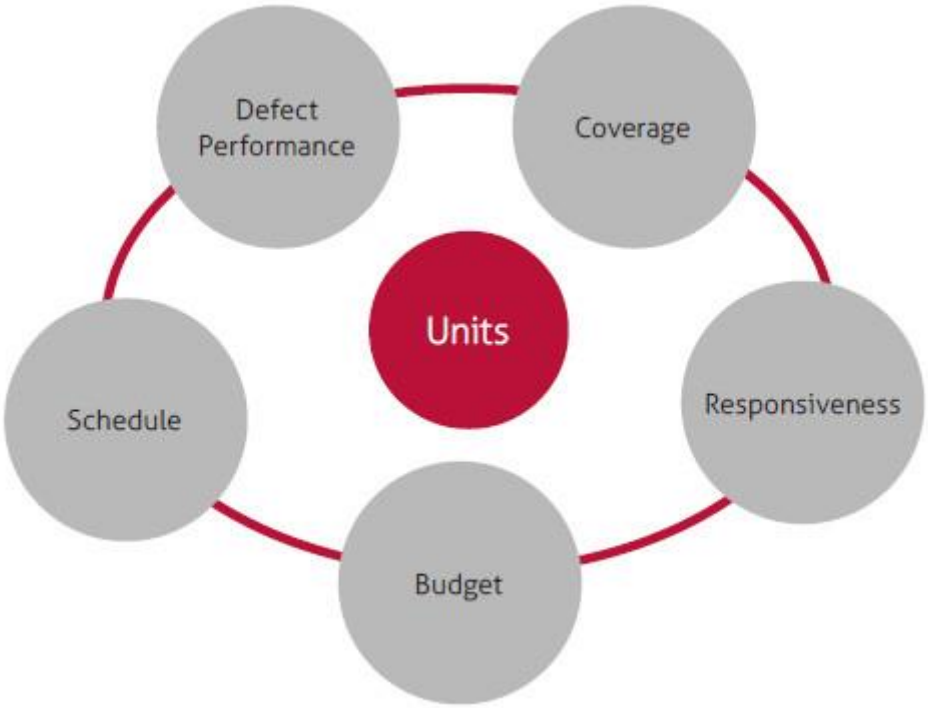
Test Objective

- There is strong evidence that effective requirement management leads to overall project cost savings. The three primary reasons for this are.
- Error in requirement typically cost over 10 times more to repair than other errors.
- Requirement errors typically comprise over 40% of all errors in a software project.
- The testing procedure should care for all of these as well as,
- In order to attain a flawless, error-free and efficient functioning system; too, software testing is an important phase of any software development life cycle. The system presented here is a blood bank management system based, various reports and data used for the same are the core of the system. The testing therefore becomes important in order to maintain the cost as well as improve performance and consistency. The testing procedure for the system has been divided in to various parts ranging for single unit testing to entire system testing

Testing Principles

- All tests should be traceable to customer requirements.
- Tests should be planned long before testing begins.
- The Pareto principle applies to software testing.
- Testing should begin "in the small" and progress toward testing "in the large".
- Exhaustive testing is not possible.

1. Unit Testing



- Unit testing focuses verification efforts on the smallest unit of software design-the software component or module. Using the component-level design description as a guide, important control paths are tested to uncover error within the boundary of the module. The unit test focuses on the internal processing logic and data structures within the boundaries of a component. This type of testing can be conducted in parallel for multiple components.

2. Integration Testing

- Integration testing is a systematic technique for constructing the software architecture while at the same time conducting tests to uncover errors associated with interface. The objective is to take unit testing components and build a program structure that has been dictated by design.

Top- Down Integration

- It is an increment approach to construction of the software architecture. Modules are integrated by moving downward through the control hierarchy, beginning with the main control module.

Bottom-Up Integration

- It begins construction and tasting with atomic modules. Because components are integrated from the bottom up, processing required for components subordinate to a given level is always available and the need for stubs is eliminated.

3. Validation Testing

- In validation testing, requirement established as part of software Requirements analysis are validate against the software that has been constructed. All validation criteria are tested. Validation testing provides the final assurance that software meets all functional, behavioural and performance requirements.
- The alpha test is conducted at the developer's site by end-used in a natural setting with the developer "looking over the shoulder" of typical users and recording errors and usage problems. It conducts in control environment.
- The beta test is conducted at end-user sites. Unlike alpha testing, the developer is generally not present. Therefore, the beta test is a "live" application of the software in an environment that cannot be controlled by the developer. The end-user records all problems that are encountered during beta testing and reports these to the developer at regular intervals. As a result of problems reported during beta tests, software engineers make modifications and then prepare for release of the software product to the entire customer base.

4. System Testing

- System testing is actually a series of different tests whose primary purpose is to fully exercise the computer- based system.

Recovery Testing

- It is a system test that forces the software to fail in a variety of ways and verifies that recovery is properly performed. If recovery is automatic, re-initialization, cack pointing mechanisms, data recovery, and restart are evaluated for correctness. If recovery requires human intervention, the mean-time-to-repair is evaluated to determine whether it is within acceptable limit.

Security Testing

- Security testing verifies that provides mechanisms built into a system will, in Fact, protect it from improper penetration. During security testing, the tester plays the roles of the individual who desire to penetrate the system. The role of the system designer is to make penetration cost more than the value of the information that will be obtained.

Stress Testing

- Stress testing executes a system in manner that demands resources in abnormal quantity, frequency or volume.

Performance Testing

- Performance testing is designed to test the run-time performance of software within the context of an integrated system. It occurs throughout all steps in the testing process. Even at unit level, the performance of an individual module may be assessed as tests are conducted. Performance tests are often coupled with stress testing and usually require both hardware and software instrumentation.

Sanity Testing

- Sanity testing is a very basic check to see if all software components compile with each other without a problem. This is just to make sure that developers have not defined conflicting or multiple functions or global variable definitions.

White Box Testing Principle

White Box Testing Principles

- White-box testing sometimes called glass-box testing is a test design method that uses the control structure of the procedural design to drive test cases. Using white-box testing methods the software engineer can derive test cases that:
- Guarantee that all independent paths within a module have been exercised at least once.
- Exercise all logical decision on their true and false sides.
- Execute all loops at their boundaries and within their operational bounds.
- Exercise internal data structures to ensure their validity.
- Testing is software quality assurance activity which is a very important to work the system successfully and achieve high quality of software. The main objective of testing is to find yet an undiscovered error and at the same time checking the quality and reliability of system.

Chapter – 6

The outline of work to be carried future

6.1 Limitation of System :

- This system cannot be access without internet. For this application there must be internet connection available.
- The mobile phone must have version above the 4.1 Jellybean.
- This system is limited for only one department.

6.2 System Future Enhancement :

- We are planning to manage attendance system offline.
- We will manage multiple department in our system.
- We are planning to send offline attendance report and important notices to parent of student.
- We are planning to develop web-application for data-entry purpose for our database.
- We are planning to manage Event in our project.

Chapter – 7

Conclusion

❖ Conclusion:

- MAMS is android based management system which handles by admin and faculties for making management easier. Faculties will manage attendance of student and also can generate report. Admin and Faculties also can notify students for important announcement using our application. Students get shared material, notices and also get transparent report of their own attendance.

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