ADVANCED DEPARTMENT MANAGEMENT SYSTEM

A PROJECT REPORT

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PROJECT REPORT ON

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INTRODUCTION

Management System is a very important part of any educational institute. Project defines the all management of department System. It performs all functions which require to any educational institute.

In our system there are three types of users. First one is Admin, second one is Teacher and third one is Student.

For admin, they can login via their username and password to their account ,after they are able to create a new batch when a session will be started and they can add teachers data also. After batch creation admin have to generate the routine of newly created class. From admin dashboard admin can upload general notice and special notice(for some particular student). Admin can generate report for students on the basis of monthly attendance, semester performance and can give remarks for the students according to their report. Admin can check students feedback for any teacher.

For teacher , they can login via their username and password to their account. After starting a new session teacher have to upload a lession plan , after that teacher can make question bank from where teacher can take test of the class students. Teacher can upload class notes as well as assignments, and check the assignments which is submitted by students and check the test result and after all teacher can able to upload the results. Teacher can view the monthly attendance report of their class. Teacher can view semester performance and they can give the remark.

For student , they can login via their username and password to their account. After login they can give their attendance via the **Smart Attendance System**. Student give their class test which will taken by teachers. Student can view general notice and special notice. Student can write feedback for any teacher of their department. Students have to submit their assignments with in a deadline. Students can check their test results.

OBJECTIVE

➢ This work done is aimed at developing an Online Web-based "Advanced Department Management System" that is of importance to a specific department of a college.

➢ The system is a web-based application that can be accessed throughout the department of an organization.This system may be used for monitoring the overall activities as well as performance of the students.

➢ This work is being developed for an engineering to maintain and facilitate easy access to information. For this the users must be registered with the system after which they can access as well as modify data as per the permissions given to them.

➢ ADMS is a web based application that aims at providing information to all the levels of department in an organization.For a given student/teacher can access the system to either upload or download some information to/from the database.

SYSTEM ANALYSIS

- Existing System:-

    In the Existing System, there are no Smart Attendance System Concept in any Project like us. There are no Auto Routine Generate concept. There are no concept like Creation of Report of students based on their performance. There are no Concept of Special Notice for some Particular Students.

- Proposed System:

    In our proposal, there are three types of users: Admin, Teacher, and Student.

    Admin can register the students and teacher into the system can generate routine. From admin dashboard admin can upload general notice and special notice(for some particular student).Admin can generate report for students on the basis of monthly attendance, semester performance and can give remarks for the students according to their report. Admin can check students feedback for any teacher.

    Teacher can upload assignments for student and take test of students and give them marks whatever they can secured.

    Students can directly give their attendance from their Dashboard and can give test and submit assignments and check their marks and percentage of their attendance.

SYSTEM REQUIRMENT

➢ HARDWARE REQUIRMENT

MINIMUM REQUIREMENT

RAM:-2GB

ROM:- 500 GB
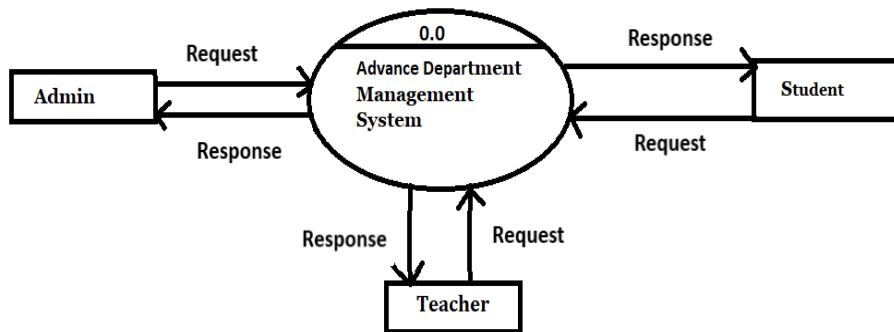
PROCESSOR:- DUAL CORE

➢ SOFTWARE REQUIRMENT

➢ Java Development Kit(8)
➢ JSP
➢ Servlet
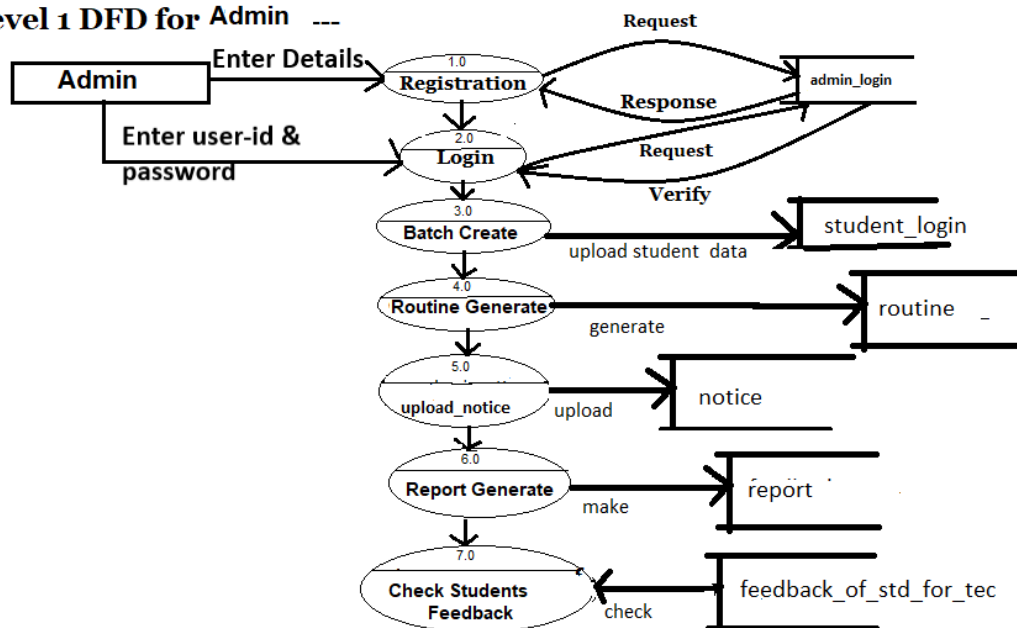➢ Apache Tomcat Web Server(7.0.34)
➢ DATABASE MySQL

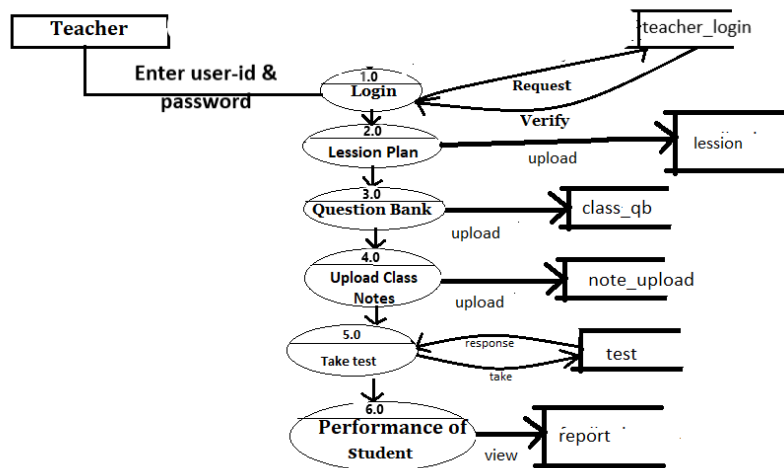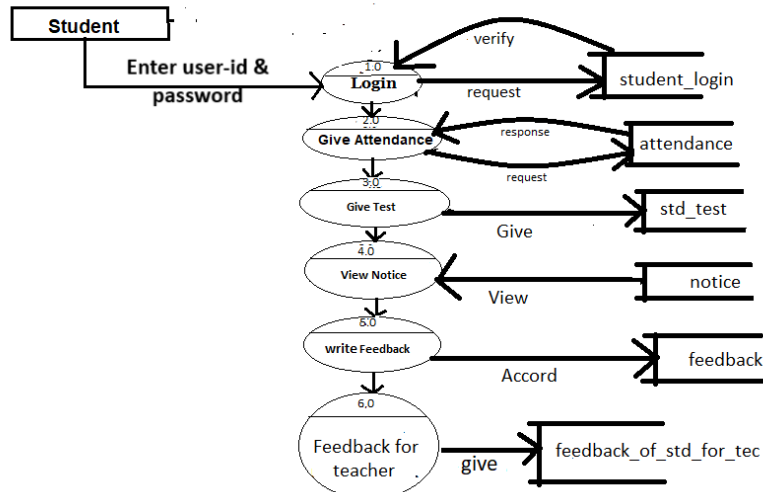# SYSTEM STUDY

DATA FLOW DIAGRAM (DFD)

Context Level DFD ---
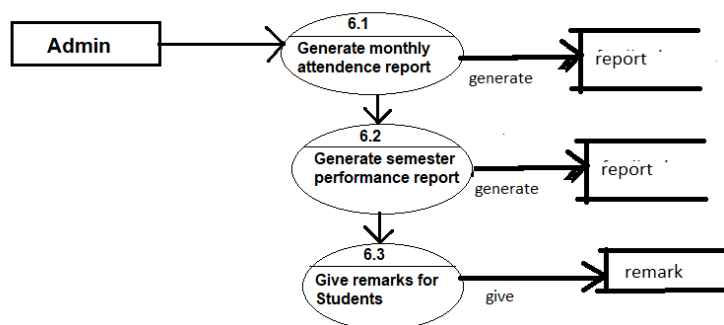

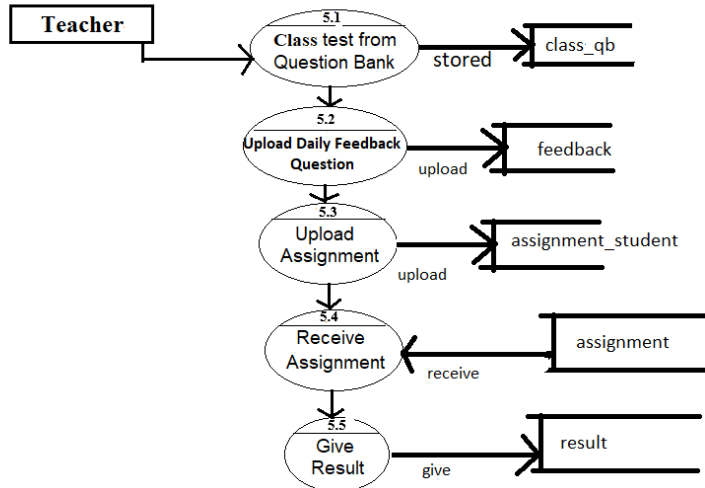**Level 1 DFD for Admin ---**

Level 1 DFD for Teacher---

```
Teacher ──── Enter user-id & password ────▶ (1.0 Login)                    teacher_login
                                               │  ▲  ◀── Request ───
                                               │  └── Verify ──────
                                               ▼
                                          (2.0 Lession Plan) ──── upload ────▶ lession
                                               │
                                               ▼
                                          (3.0 Question Bank) ──── upload ──▶ class_qb
                                               │
                                               ▼
                                          (4.0 Upload Class Notes) ── upload ──▶ note_upload
                                               │
                                               ▼
                                          (5.0 Take test) ── response / take ──▶ test
                                               │
                                               ▼
                                          (6.0 Performance of Student) ── view ──▶ report
```

Level 1 DFD for Student - - -

```
Student ──── Enter user-id & password ────▶ (1.0 Login)
                                               │  verify
                                               │  request ────▶ student_login
                                               ▼
                                          (2.0 Give Attendance) ── response / request ──▶ attendance
                                               │
                                               ▼
                                          (3.0 Give Test) ──── Give ────▶ std_test
                                               │
                                               ▼
                                          (4.0 View Notice) ◀──── View ──── notice
                                               │
                                               ▼
                                          (5.0 write Feedback) ──── Accord ────▶ feedback
                                               │
                                               ▼
                                          (6.0 Feedback for teacher) ── give ──▶ feedback_of_std_for_tec
```

Level 2 DFD for Admin for report generate ---

```
Admin ────▶ (6.1 Generate monthly attendence report) ── generate ──▶ report
                               │
                               ▼
                        (6.2 Generate semester performance report) ── generate ──▶ report
                               │
                               ▼
                        (6.3 Give remarks for Students) ── give ──▶ remark
```

Level 2 DFD for Teacher For Test ---

```
Teacher ──────────┐
                  │
                  ▼
            ┌──────────┐
            │   5.1    │
            │Class test│ ──stored──► ┌──────────┐
            │   from   │             │ class_qb │
            │ Question │             └──────────┘
            │   Bank   │
            └────┬─────┘
                 │
                 ▼
            ┌──────────┐
            │   5.2    │
            │Upload    │ ──upload──► ┌──────────┐
            │Daily     │             │ feedback │
            │Feedback  │             └──────────┘
            │Question  │
            └────┬─────┘
                 │
                 ▼
            ┌──────────┐
            │   5.3    │
            │  Upload  │ ──upload──► ┌─────────────────┐
            │Assignment│             │assignment_student│
            └────┬─────┘             └─────────────────┘
                 │
                 ▼
            ┌──────────┐
            │   5.4    │
            │ Receive  │ ◄─receive── ┌────────────┐
            │Assignment│             │ assignment │
            └────┬─────┘             └────────────┘
                 │
                 ▼
            ┌──────────┐
            │   5.5    │
            │  Give    │ ──give──► ┌────────┐
            │ Result   │           │ result │
            └──────────┘           └────────┘
```

Level 2 DFD for Teacher for student performance ---

```
Teacher ──────────► ┌──────────┐
                    │   6.1    │
                    │View      │ ◄─view── ┌────────┐
                    │monthly   │          │ report │
                    │attendence│          └────────┘
                    │report    │
                    └────┬─────┘
                         │
                         ▼
                    ┌──────────┐
                    │   6.2    │
                    │View      │ ◄─view── ┌────────┐
                    │semester  │          │ report │
                    │performance│         └────────┘
                    │of student│
                    └────┬─────┘
                         │
                         ▼
                    ┌──────────┐
                    │   6.3    │
                    │  give    │ ──give──► ┌────────┐
                    │ remarks  │           │ remark │
                    └──────────┘           └────────┘
```
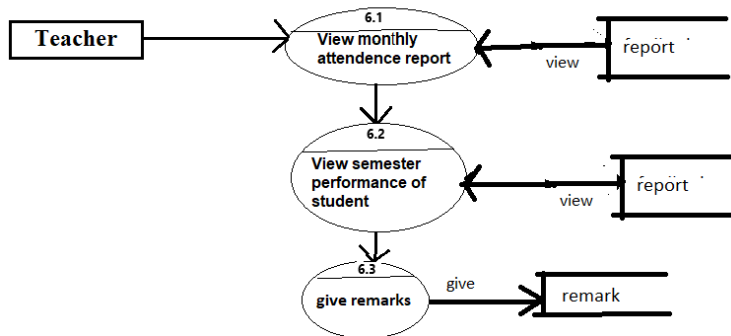
Level 2 DFD for Student for notice ---

```
Student ──────────► ┌──────────┐
                    │   4.1    │
                    │ General  │ ──view──► ┌────────┐
                    │ notice   │           │ notice │
                    └────┬─────┘           └────────┘
                         │
                         ▼
                    ┌──────────┐
                    │   4.2    │
                    │ Special  │ ──view──► ┌──────────┐
                    │ notice   │           │ sp_notice│
                    └──────────┘           └──────────┘
```
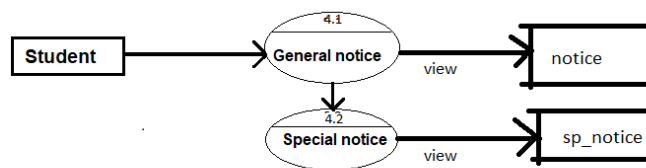
Level 2 DFD for Student for Test ---
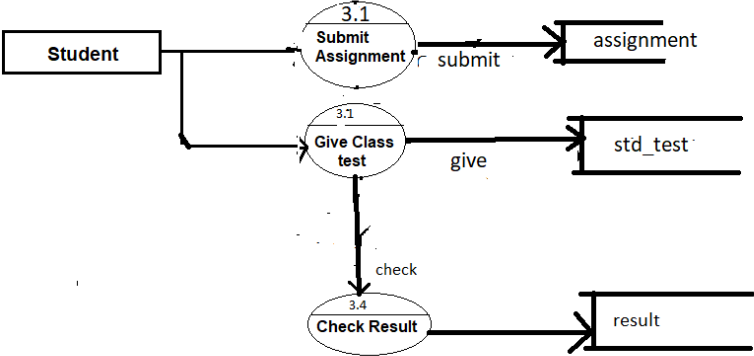
ENTITY RELATIONSHIP DIAGRAM (ERD)

USE CASE DIAGRAM

Login

Give Attendance

Batch Creation

Add Teacher and
Add Student

Take Assessment

Appear
Assessment

Give Result

View Result

Give feedback

Manage feedback

Generate Annual /
monthly Report of
student

View Report

Admin

Teacher
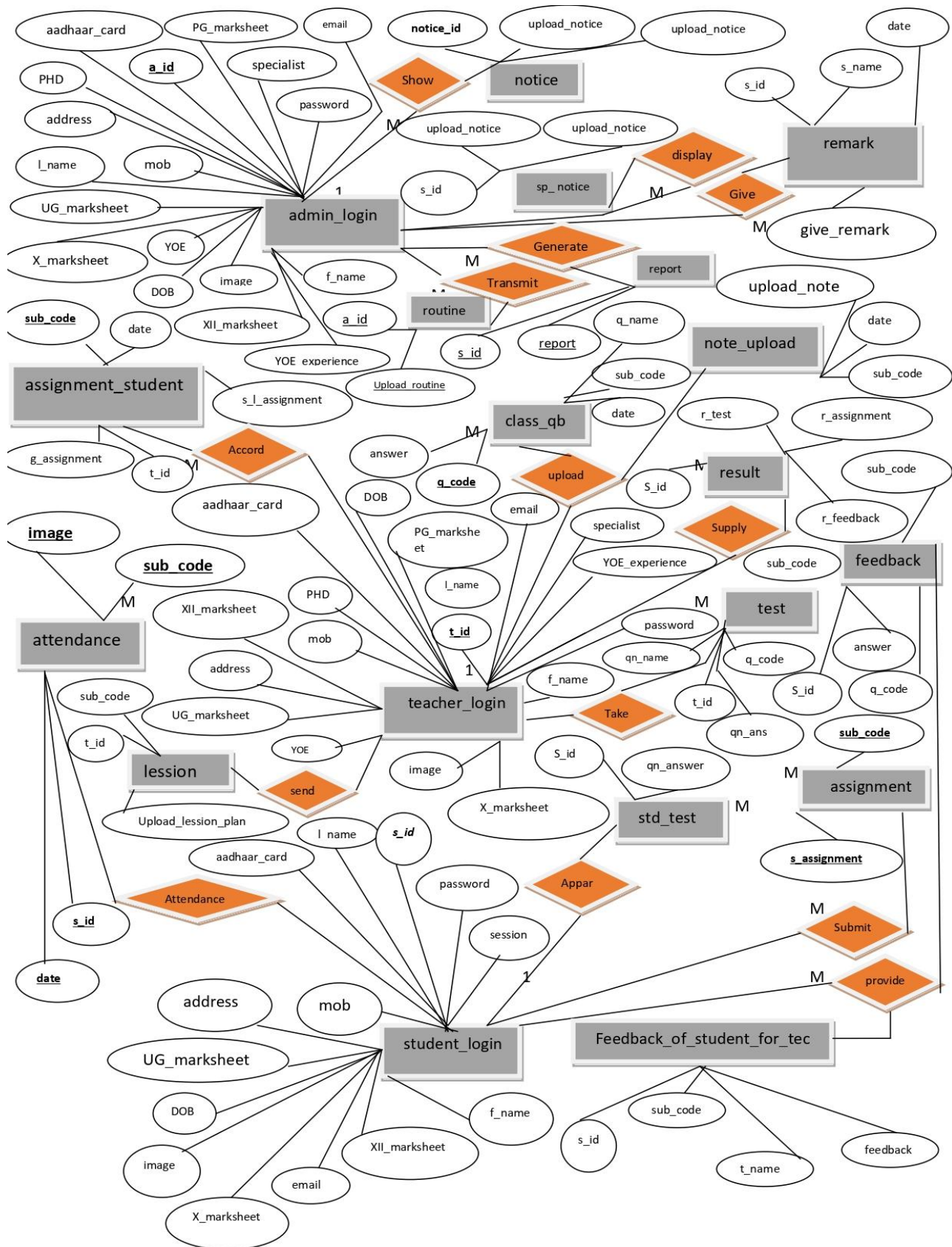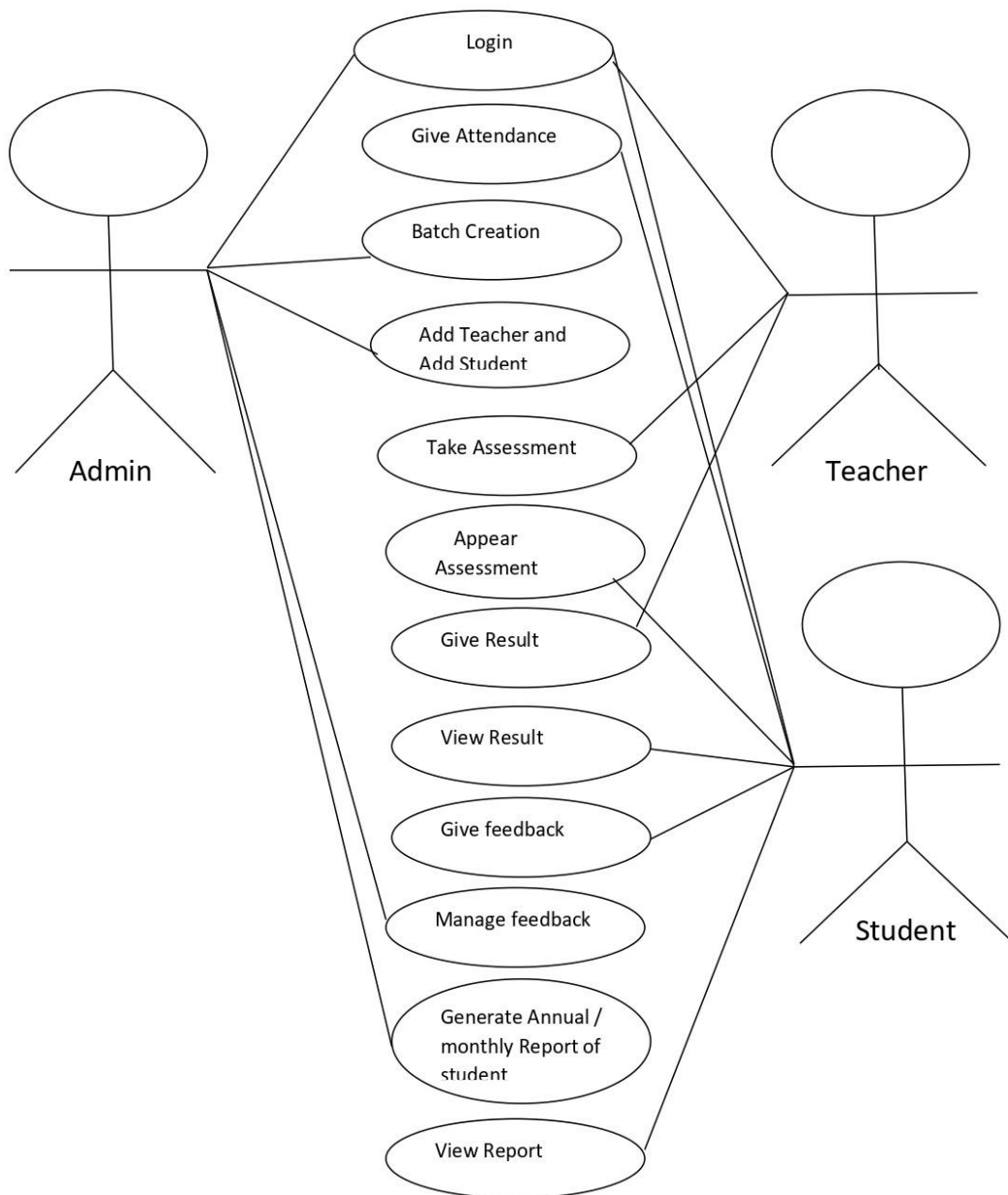
Student

TABLE STRUCTURE

STUDENT TABLES

student_login-

Field name	Data Type	Size	Constrain
s_id	varchar	10	Primary key
password	varchar	10	not null
f_name	varchar	30	not null
l_name	varchar	30	not null
mob	varchar	10	not null
email	varchar	30	not null
address	varchar	50	not null
DOB	date	8	not null
X-marksheet	varchar	200	not null
XII-marksheet	varchar	200	not null
UG-marksheet	varchar	200	not null
aadhaar card	varchar	12	not null
Session	varchar	20	not null
image	varchar	200	not null

attendance-

Field name	Data Type	Size	Constrain
s_id	varchar	10	Foreign key
sub_code	varchar	3	Foreign key
image	varchar	200	not null
date	date	8	not null

assignment-

Field name	Data Type	Size	Constrain
sub_code	varchar	10	Foreign key

Field name	Data Type	Size	Constrain
s_assignment	varchar	200	not null
s_id	varchar	4	Foreign key

feedback--

Field name	Data Type	Size	Constrain
q_code	varchar	5	Foreign key
sub_code	varchar	3	Foreign key
s_id	varchar	10	Foreign key
ans	varchar	100	not null

std_test-

Field name	Data Type	Size	Constrain
s_id	varchar	4	Foreign Key
qn_answer	varchar	20	not null

feedback_of_student_for_tec-

Field name	Data Type	Size	Constrain
s_id	varchar	4	Foreign key
sub_code	varchar	5	not null
t_name	varchar	20	not null
feedback	varchar	200	not null

ADMIN TABLES

admin_login-

Field name	Data Type	Size	Constrain
a_id	varchar	10	Primary key
password	varchar	10	not null
f_name	varchar	30	not null
l_name	varchar	30	not null
mob	varchar	10	not null
email	varchar	30	not null
address	varchar	50	not null
DOB	date	8	not null
X-marksheet	varchar	200	not null
XII-marksheet	varchar	200	not null
UG-marksheet	varchar	200	not null
PG-marksheet	varchar	200	not null
PHD	varchar	200	not null
aadhaar card	varchar	12	not null
specialist	varchar	20	not null
YOE	number	2	not null
YOE-certificate	varchar	200	not null
image	varchar	200	not null

remark-

Field name	Data Type	Size	Constrain
s_name	Varchar	30	not null
s_id	Varchar	10	Foreign Key
give_remark	Varchar	100	not null
date	date	20	not null

notice-

Field name	Data Type	Size	Constrain
notice_id	varchar	10	Primary Key
notice_topic	varchar	200	not null
upload_notice	varchar	2000	not null

sp_notice-

Field name	Data Type	Size	Constrain
s_id	varchar	4	Foreign key
upload_notice	varchar	200	not null
topic_notice	varchar	200	not null

routine-

Field name	Data Type	Size	Constrain
a_id	varchar	4	Foreign key
upload_routine	varchar	200	not null

report-

Field name	Data Type	Size	Constrain
s_id	varchar	4	Foreign key
upload_report	varchar	200	not null

TEACHER TABLES—

teacher_login-

Field name	Data Type	Size	Constrain
t_id	varchar	10	Primary key
password	varchar	10	not null
f_name	varchar	30	not null
l_name	varchar	30	not null
mob	varchar	10	not null
email	varchar	30	not null
address	varchar	50	not null
DOB	date	8	not null
X-marksheet	varchar	200	not null
XII-marksheet	varchar	200	not null
UG-marksheet	varchar	200	not null
PG-marksheet	varchar	200	not null
PHD	varchar	200	not null
aadhaar card	varchar	12	not null
specialist	varchar	20	not null
YOE	number	2	not null
YOE-certificate	varchar	200	not null
image	varchar	200	not null

assignment_student -

Field name	Data Type	Size	Constrain
sub_code	varchar	3	Primary key
date	date	8	not null
g_assignment	varchar	200	not null
s_l_date	varchar	8	not null
t_id	varchar	10	Foreign Key

lession-

Field name	Data Type	Size	Constrain
t_id	varchar	10	Foreign key
sub_code	varchar	4	Foreign key
upload_lession_plan	varchar	200	not null

class_qb-

Field name	Data Type	Size	Constrain
q_code	varchar	5	Primary Key
q_name	varchar	200	not null
answer	varchar	100	not null
sub_code	varchar	3	Foreign key
date	date	8	not null

note_upload-

Field name	Data Type	Size	Constrain
sub_code	varchar	4	Foreign key
upload_notes	varchar	200	not null
date	date	8	not null

result-

Field name	Data Type	Size	Constrain
s_id	varchar	4	Foreign key
r_test	varchar	10	not null
r_asn	varchar	10	not null
r_feedback	varchar	10	not null

test-

Field name	Data Type	Size	Constrain
q_code	varchar	4	Foreign key
sub_code	varchar	4	Foreign key
qn_name	varchar	200	not null
qn_ans	varchar	200	not null
t_id	varchar	10	Foreign key

SAMPLE SCREENSHOT

1. If User Enter Wrong User_id or Password
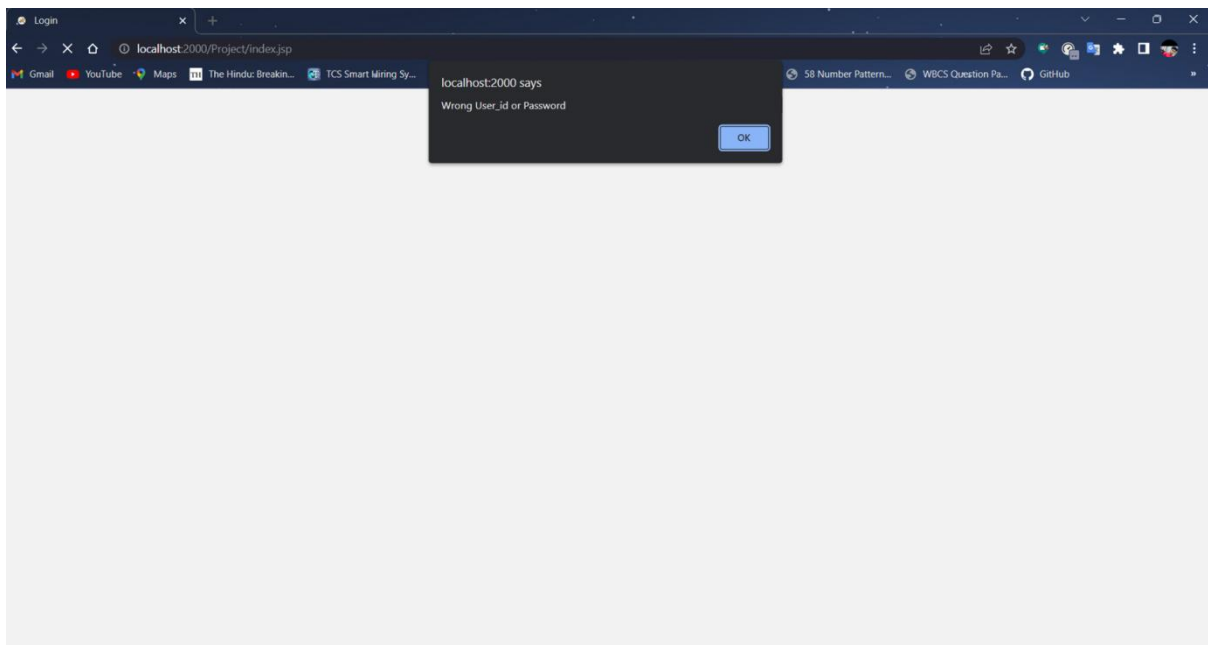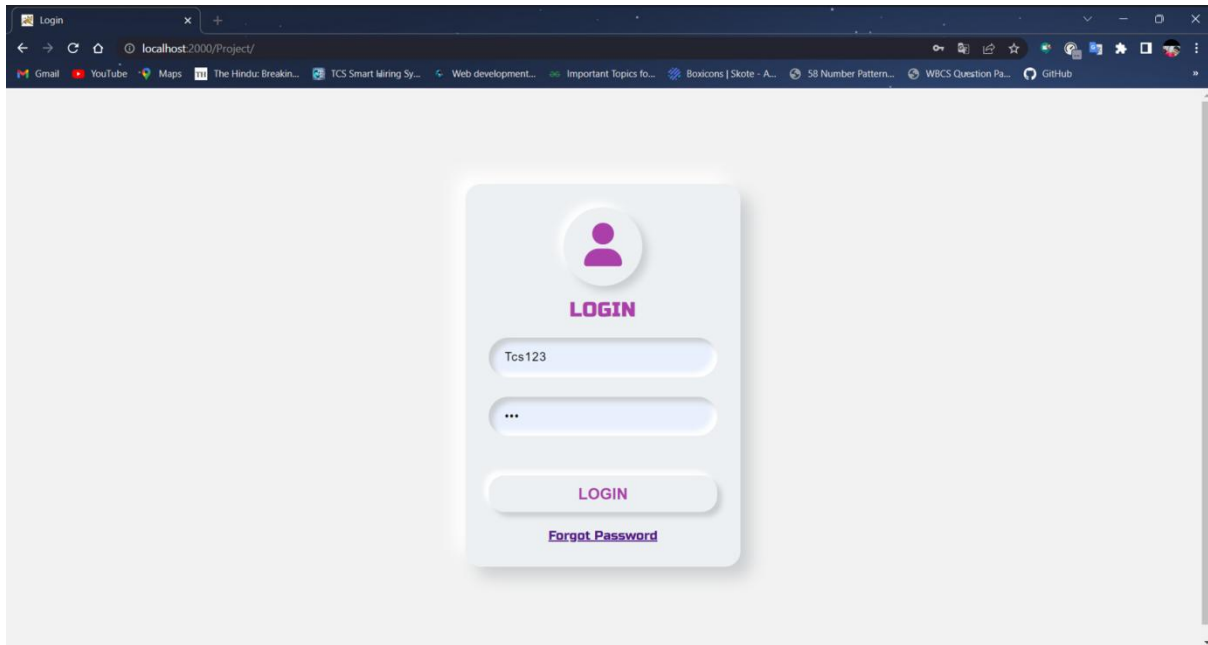
2. If User Enter Their Correct User_id and Password
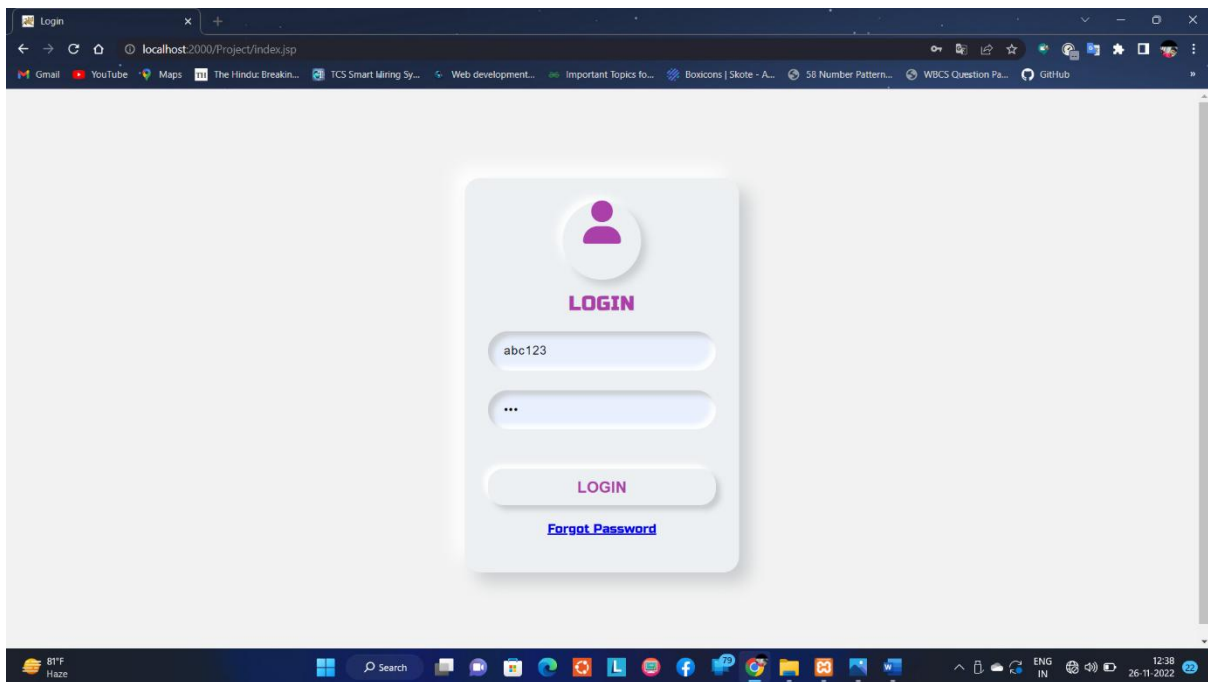
Then They can Login their Account and access their Dashboard
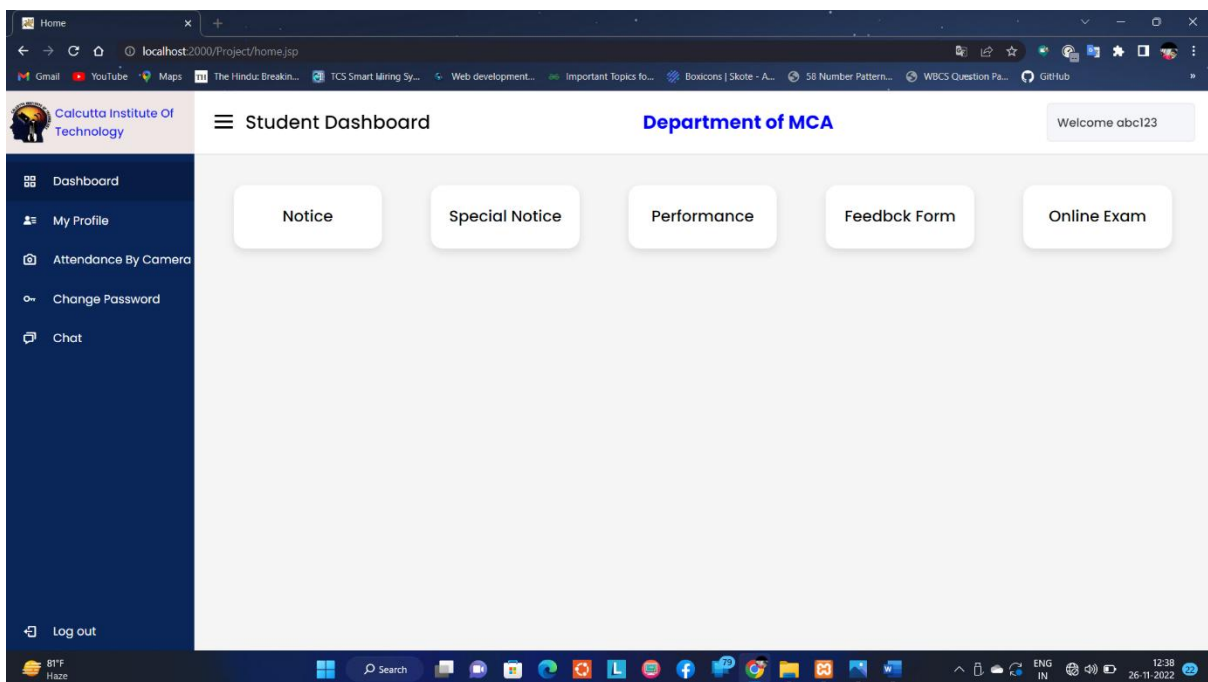
3. If User Click Right to their Mouse
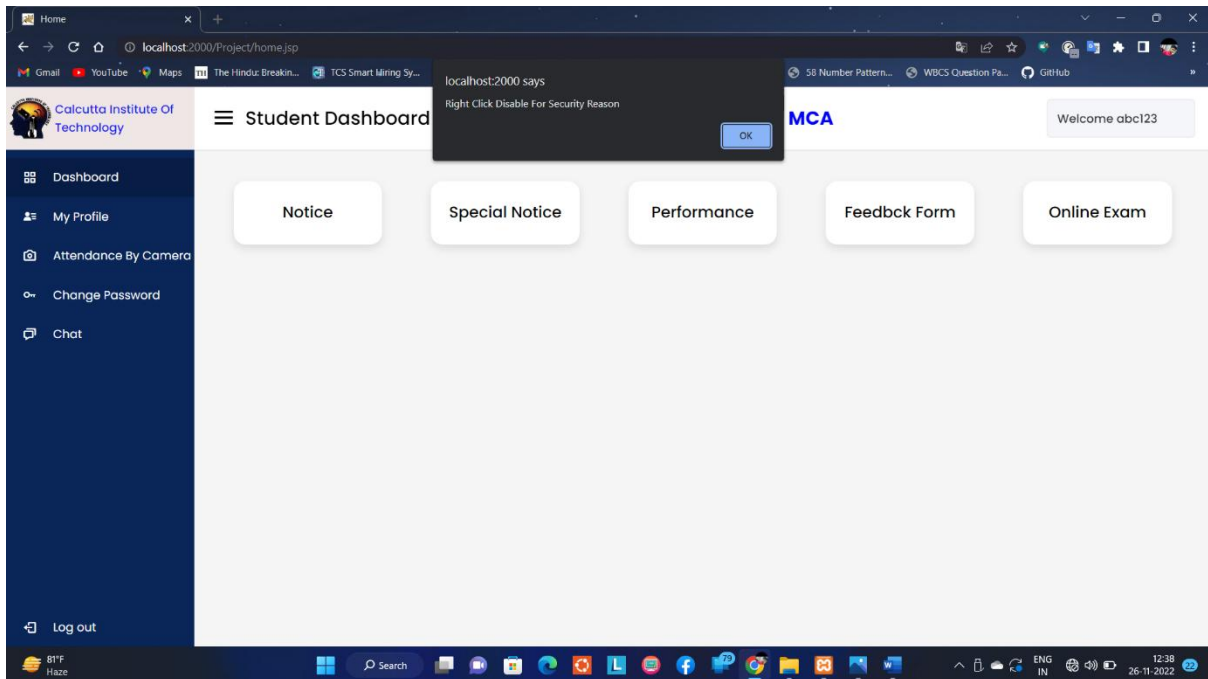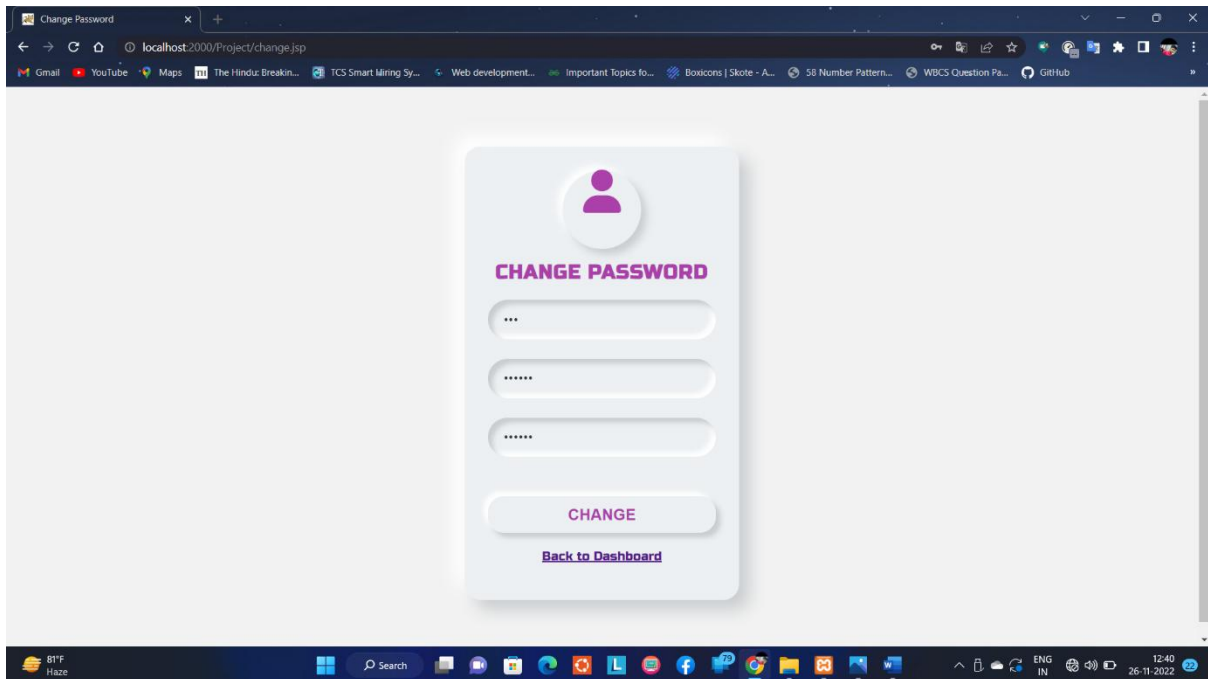

4. It is the Change Password Page
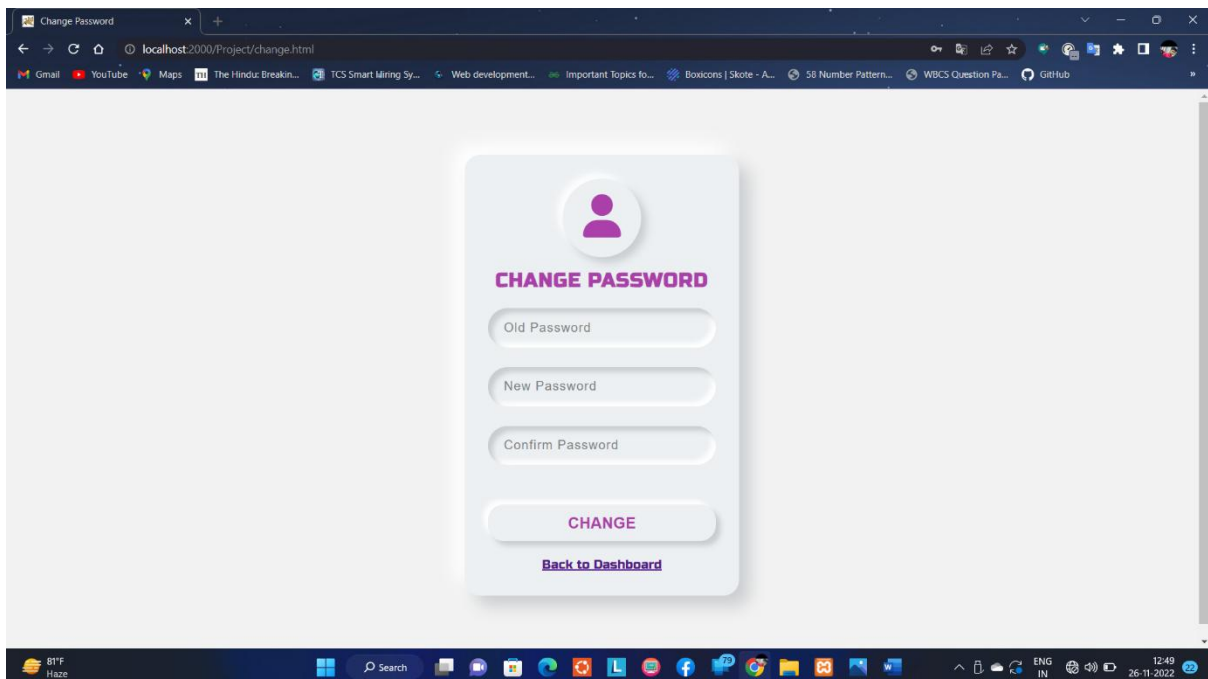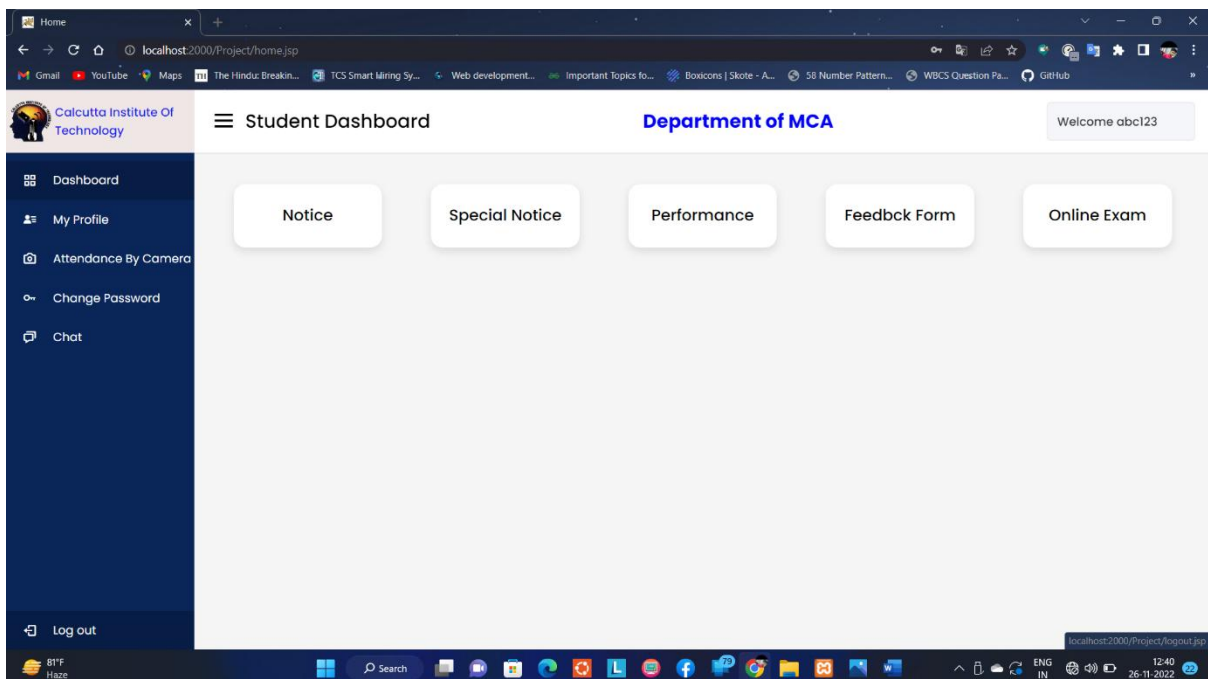
5. If User enter their Wrong Old Password
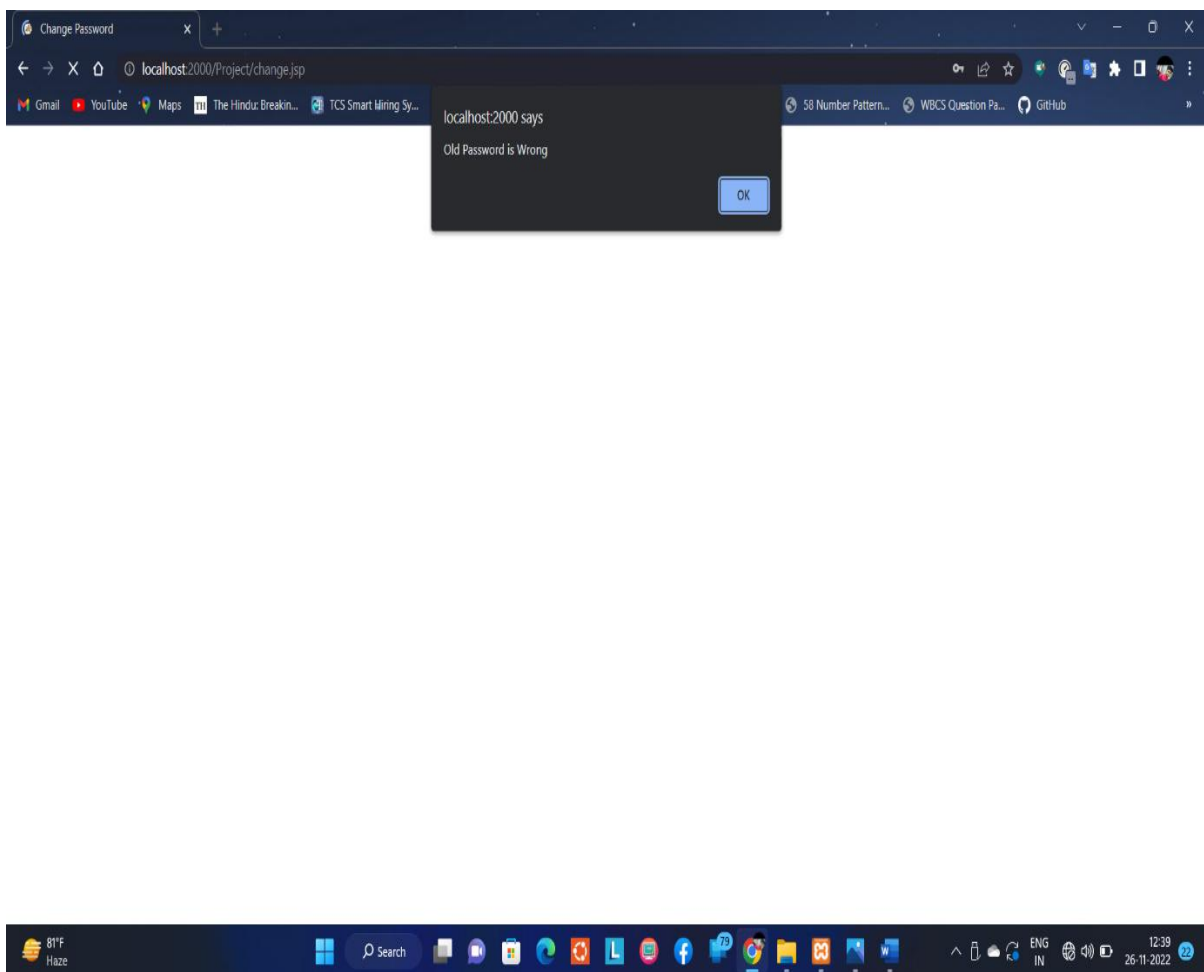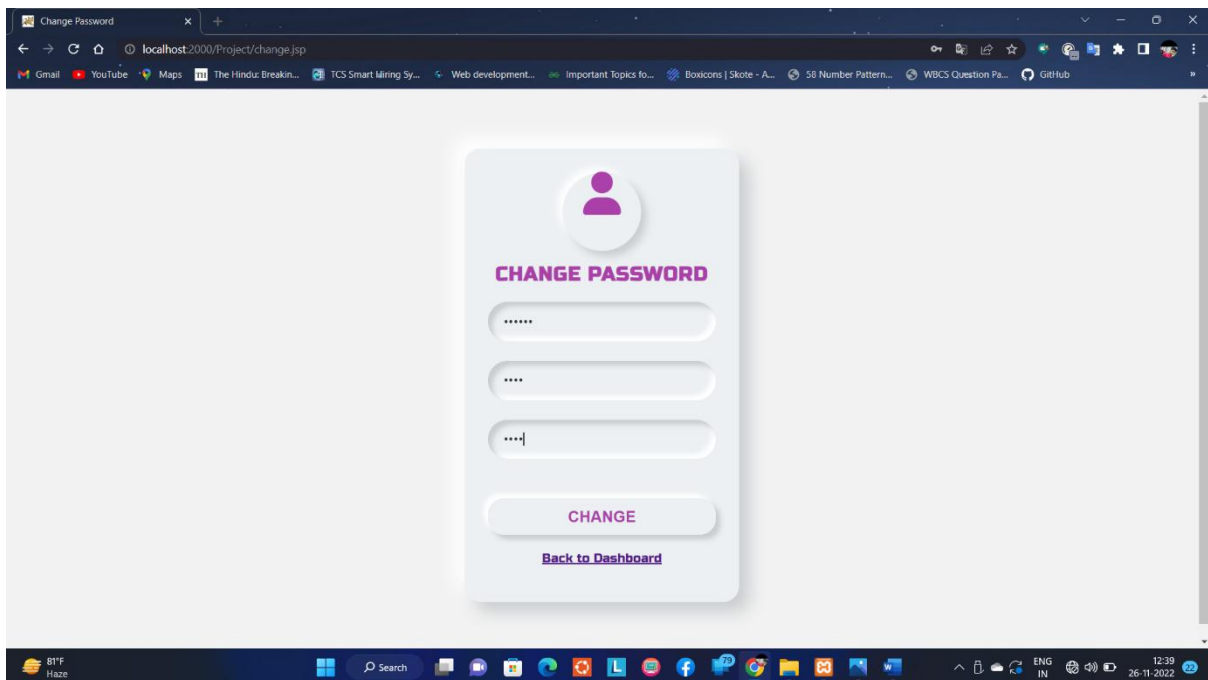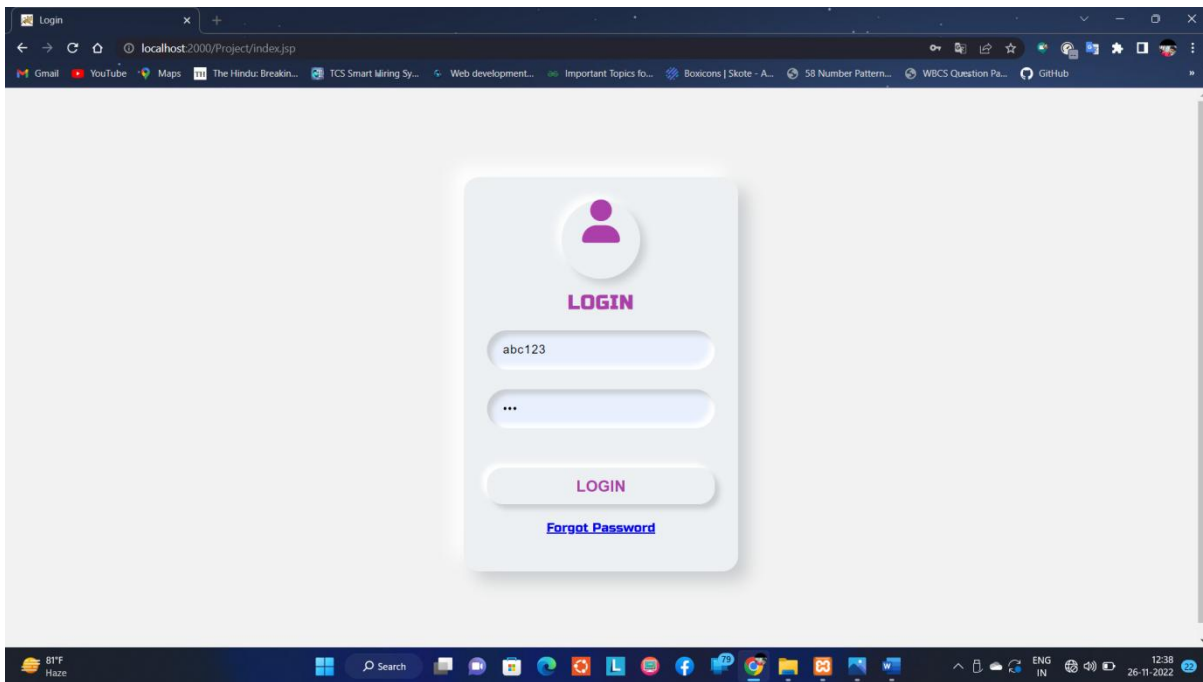
6.   If User enter Wrong New and Confirm Password
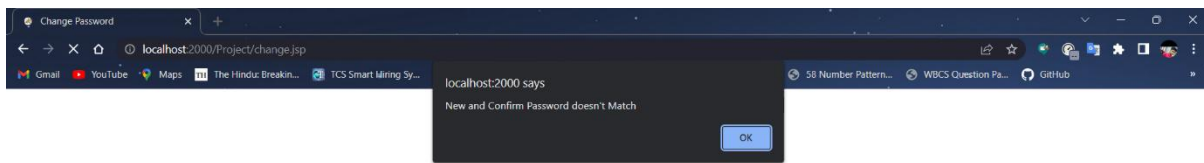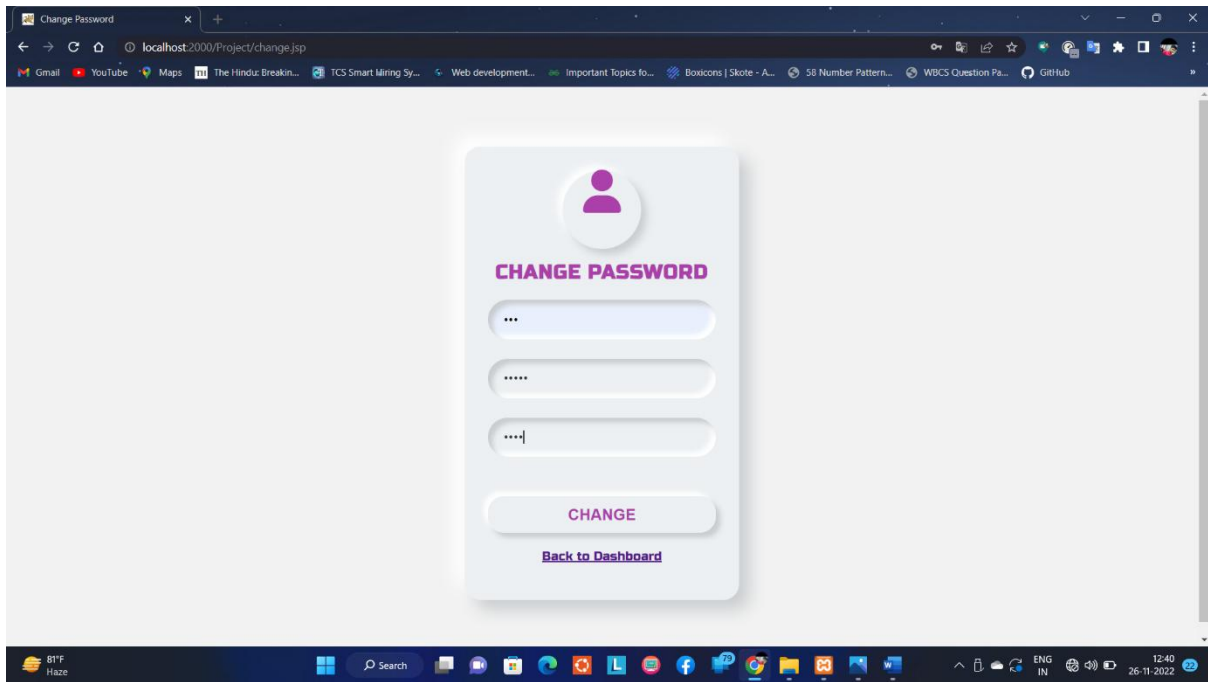
7. If User Enter Correct Old Password and Same New and Confirm Password

The Old Password has been Successfully changed and now they Redirect to their Dashboard

And When they click on Log Out Button they will log out from their account

<u>LIMITATION</u>

At present this system is only website based and do not have any such software for communication purpose.

It does not include information like how many computers are working within a lab or the defective ones.

Using the free express edition of SQL Server can limit how large your database files can be. SOL Server Standard edition has an upper limit of 524 petabytes, but it is not free.

If database reaches the limit of SOL Server Express Version will begin to experience errors due to the inability of the database tables to accept new data.

FUTURE SCOPE

1. Chabot systems can be added for communication through applications.
2. Development of Android app for the website.
3. Test for placement drives can also be added which will be designed according to the company requirements. (MCQ, Short questions etc).
4. Better animations with friendlier user interface.
5. Number of electronic devices (fans, lights or computer systems) in each class or lab will also be mentioned in room module.

CONCLUSION

The overall speedup is considerably higher than the manual work. The management system enhances the functionalities of the routine works of the department in a number of ways. The computerization helps the users a lot to minimize the working time with ease. The department staffs get information in desired manner. Data retrieval is also easy and fast. This also restricts the users to enter invalid data and reduces the burden on the department. The data maintaining has been made quite simple.

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