PROJECT NAME : ONLINE CLASS MANAGEMENT SYSTEM

PROJECT GUIDE : MUKESH NEGI

PROJECT MEMBERS :

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System Requirements Statement (SRS) –

1. CATEGORY : Web Application

2. PURPOSE :

The Online Class Management System is designed for the convenience of students, faculties and course coordinator of the institute. The goal of the application is to provide single online interface to students, faculty and course coordinator, thereby saving the time and efforts.

3. SCOPE :

This will provide more flexibility in the existing learning platform structures. It provides a means of collaborative learning for the students and also promotes the distance learning. It will integrate the benefits of a physical classroom with the convenience of a ‘no-physical-bar’ online learning environment.

4. INTRODUCTION :

The Project deals with developing a web application for managing student data, faculty data, weekly schedules, topic wise assignments, notifications and notes, etc.

It is designed for three types of users :

- Students
- Faculties
- Course Coordinator

In order to use the system, one needs to login into the system.

4.1 Existing system :

The present system is a manual system. Due to Lack of Single portal for Accessing Meeting links, Schedule, Assignments and Notes etc Students need to refer different Platforms like Google drive, whatsapp groups & excel sheets Which caused inconvenience for students, faculties as well as coordinator.

A Manual System has following disadvantages :

- ✓ It's a limited system and fewer users friendly.
- ✓ Searching of particular information is critical it takes lot of time.
- ✓ In the existing system students need to refer multiple platform for every data.
- ✓ Conduct of mock examination and compilation of result is a tedious process which need lot of time and cost.
- ✓ Limited sharing is possible if the data is in discrete format.
- ✓ The manual system gives us less security for saving data, some data may be lost due to mismanagement.

4.2 Proposed system :

As the Online class management system is one that aims to give the student, faculty and coordinator a smarter and convenient way to access and manage data. There are obviously many advantages of this system to the student, as well as the teacher and the associated educational institution.

The system after careful analysis has been identified to be presented with the following modules:

- ✓ **Authentication:** Authentication of this application will be provided for only registered members.
- ✓ **Coordinator Access:** Coordinator would be able to keep an eye on the records of students, Able to manage Students and Faculty data, Able to issue notifications and able to conduct mock examinations.
- ✓ **Students Access:** Student can Access and download all the study material uploaded by coordinator / faculty when required.
- ✓ **Record Storage:** The user information files should be stored in centralized database which can be maintained by the system.
- ✓ **Video Lectures:** Student can watch and listen the class room session repeatedly which will be uploaded by the teacher.
- ✓ **Mock Test & Results :** Simple**,** time and cost effective Conduction of mock examination and compilation of result.

5. FUNCTIONAL REQUIREMENTS :

Functional requirements of our system are explained below.

Sr. No.	SRS Requirement ID	Description
1	**Course Co-Ordinator**	
1.1	F1	Login Process
1.2	F2	Forgot Password Process
1.3	F3	Change Password Process
1.4	F4	Update Account Process
1.5.1	F5	Display All Student
1.5.2	F6	Add New Student
1.5.3	F7	Search Student
1.5.4	F8	Display Particular Student Details
1.5.5	F9	Edit/Delete Particular Student Details
1.6.1	F10	Display All Faculty
1.6.2	F11	Add New Faculty
1.6.3	F12	Search Faculty
1.6.4	F13	Display Particular Faculty Details

1.6.5	F14	Edit/Delete Particular Faculty Details
1.7.1	F15	Display Subjects
1.7.2	F16	Display Particular Subject Details
1.8.1	F17	Upload Notice
1.8.2	F18	Display All Notice
1.9.1	F19	Display Week wise Schedule
1.9.2	F20	Add Next Week Schedule
1.9.3	F21	Display Particular Schedule
1.10.1	F22	Conduct MCQ Test
1.10.2	F23	View Result
2	**Faculty**	
2.1	F24	Login Process
2.2	F25	Forgot Password Process
2.3	F26	Change Password Process
2.4	F27	Update Account Process
2.5	F28	Display Schedule, Notice
2.6	F29	Display All Subjects
2.7.1	F30	Upload Assignment
2.7.2	F31	Display All Assignment
2.7.3	F32	Display Student Assignment
2.8.1	F33	Conduct MCQ Test
2.8.2	F34	View Result
3	**Student**	
3.1	F35	Login Process
3.2	F36	Forgot Password Process
3.3	F37	Change Password Process
3.4	F38	Update Account Process
3.5	F39	Display Schedule, Notice
3.6	F40	Display Topic wise Notes
3.7	F41	Display Week wise Schedule
3.8	F42	Display Particular Schedule
3.9	F43	Display Subject wise Assignment
3.10.1	F44	Attempt Test
3.10.2	F45	View Result

5. NON-FUNCTIONAL REQUIREMENTS :

Non functional requirements of our system are mentioned below :

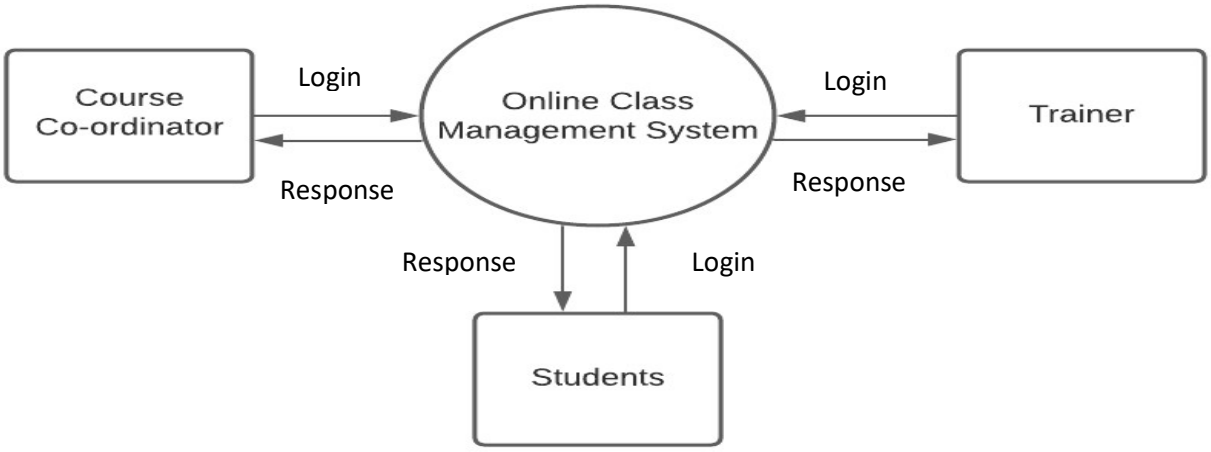
- ✓ Secure access of confidential data.
- ✓ Better component design to get efficiency at peak time.
- ✓ Flexible service based architecture will be highly desirable for future extension.

6. ASSUMPTIONS

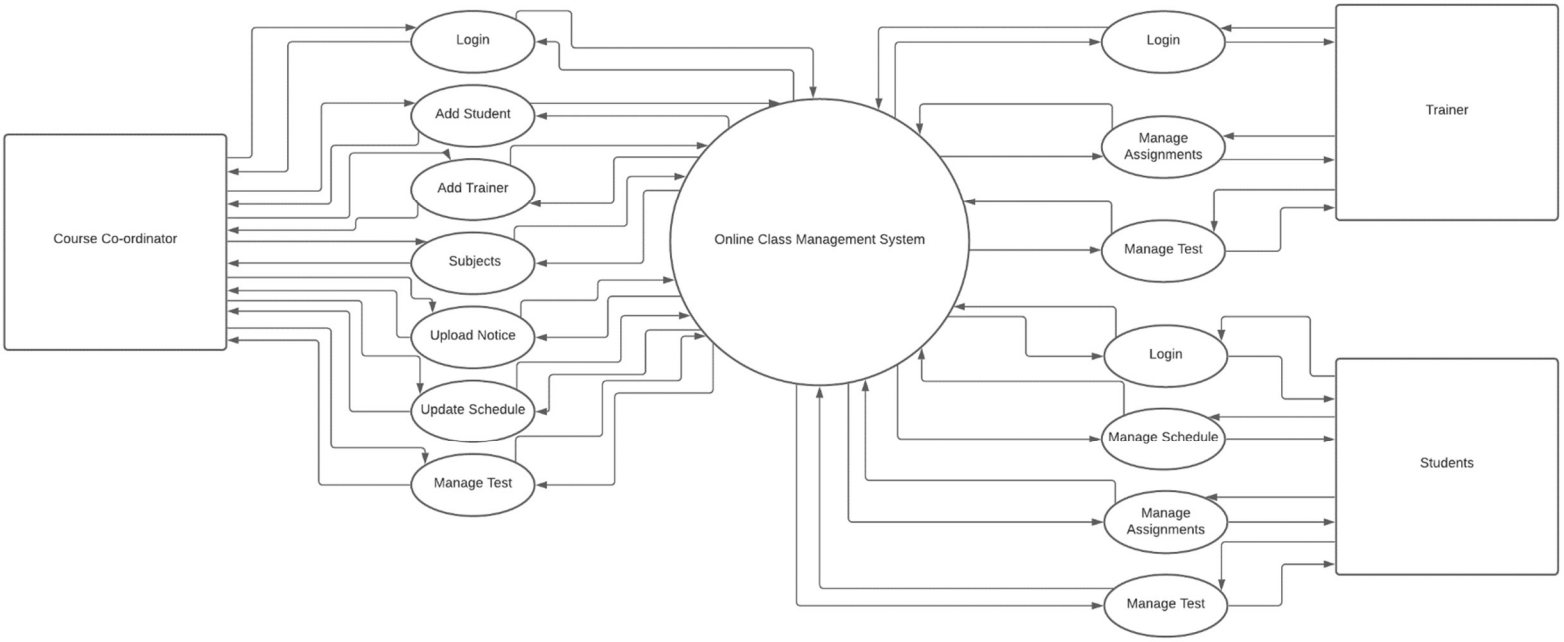
i. Admin / Faculty / Students credentials are already provided
ii. Student / Quiz / Faculty data is already inserted into database
iii. Dummy Schedule / Notice are already inserted into database

7. UML DAIGRAMS :

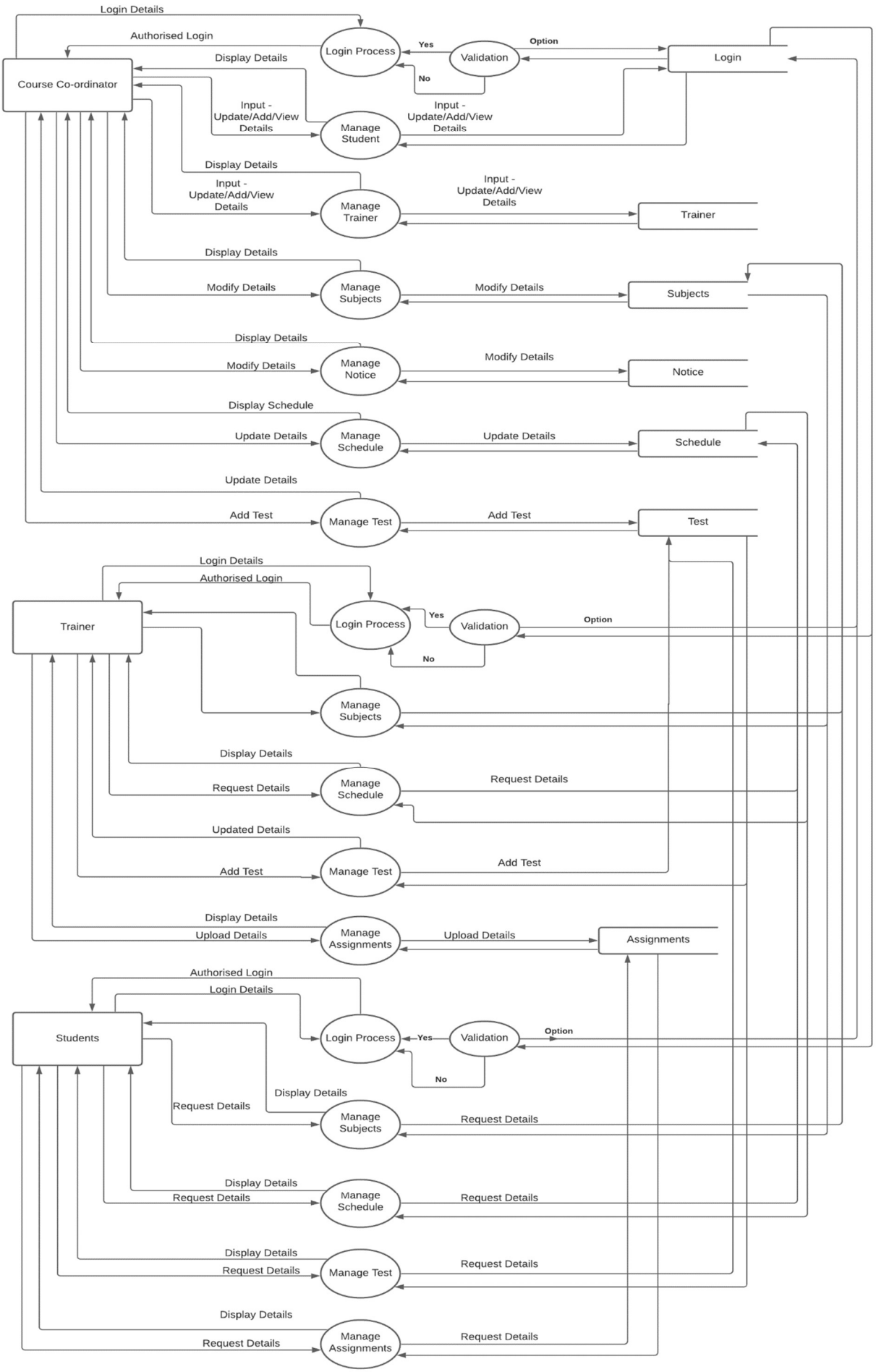
7.1 DFD Level 0 :



7.2 DFD Level 1 :

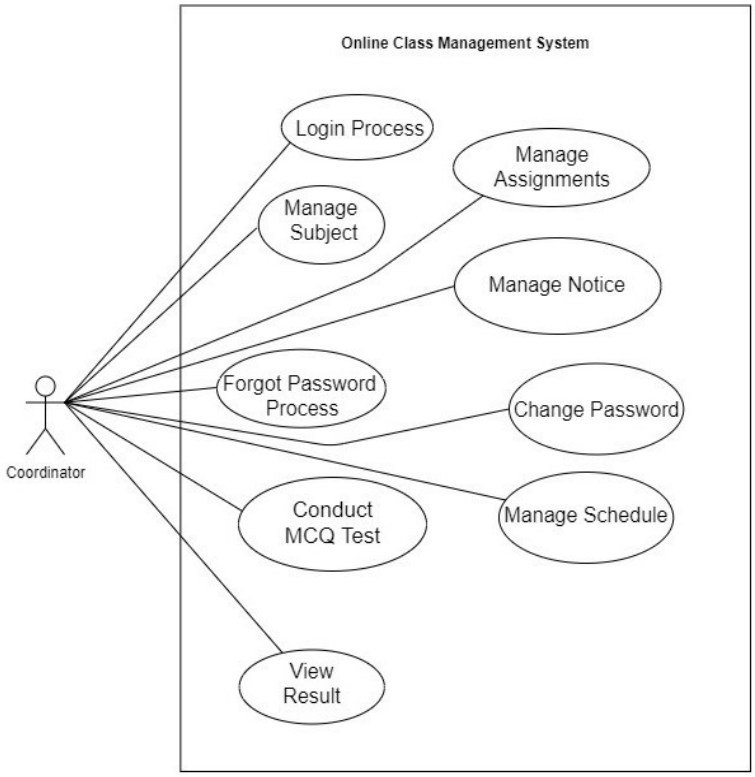


7.3 DFD Level 2 :

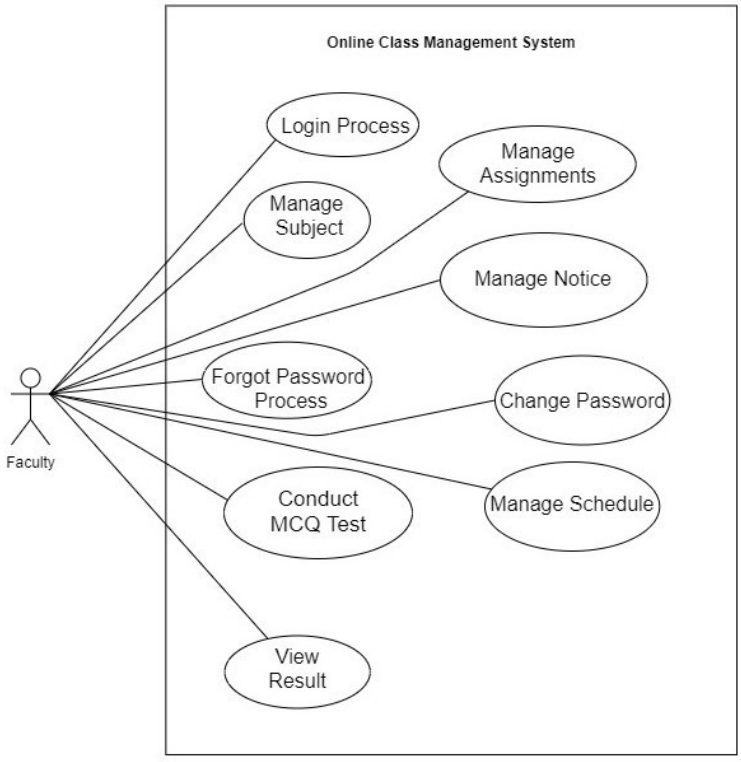


7.4 USE CASE DIAGRAM :

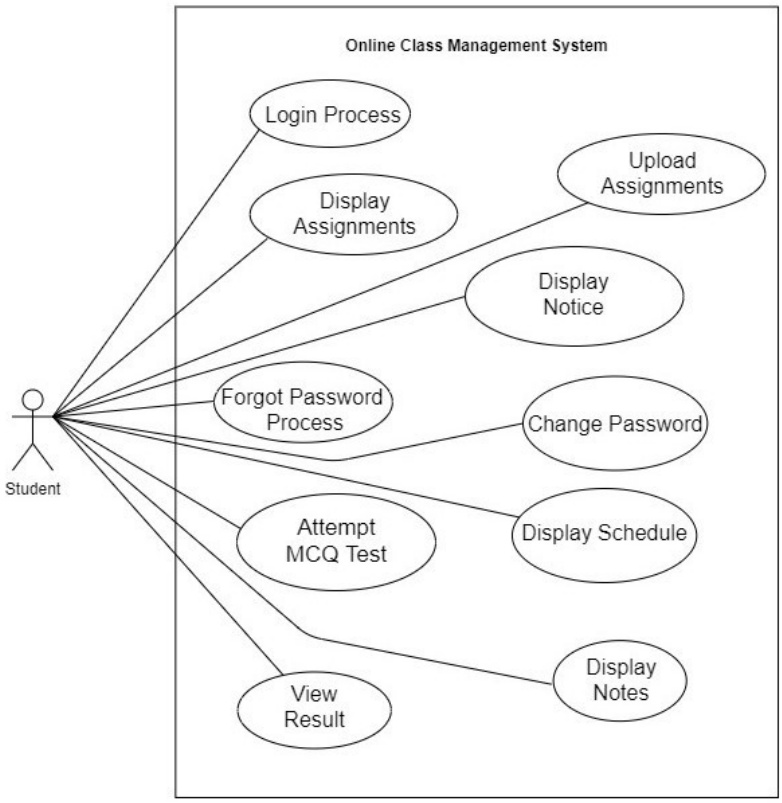
7.4.1 Coordinator use case diagram :



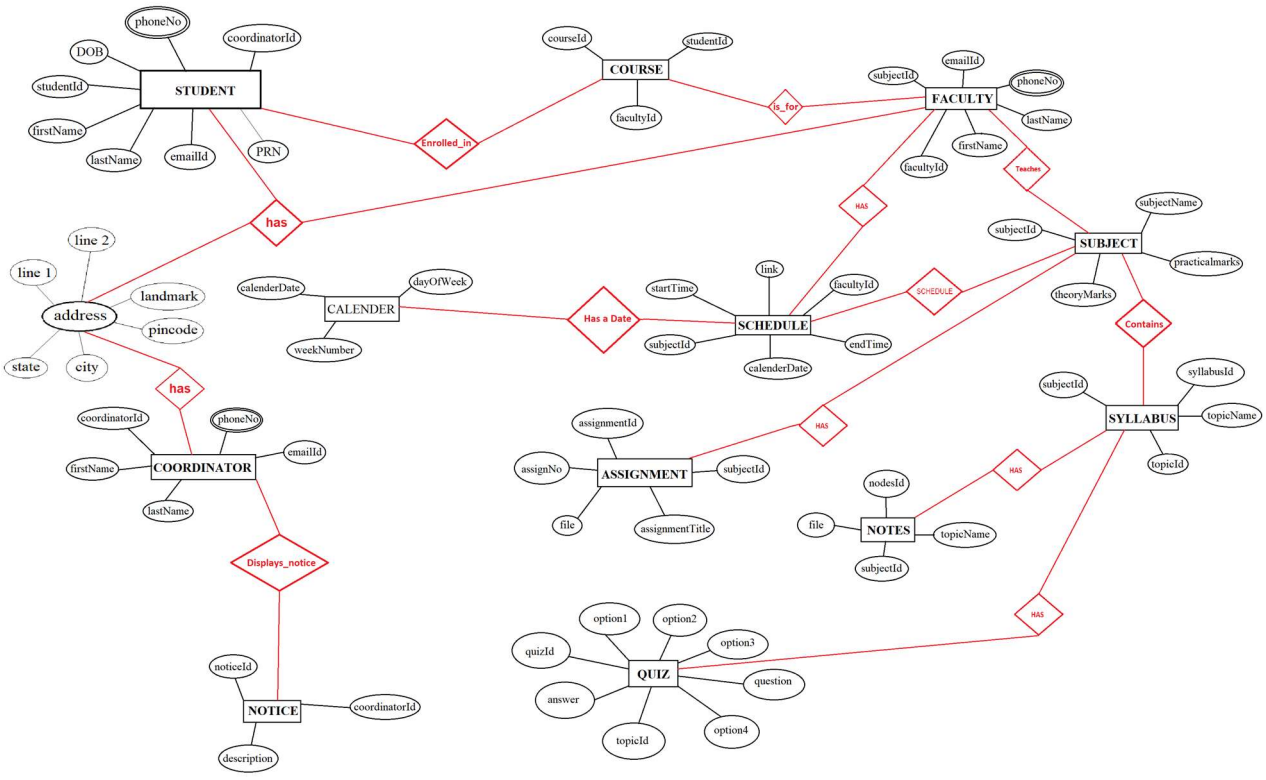
7.4.2 Faculty use case diagram :



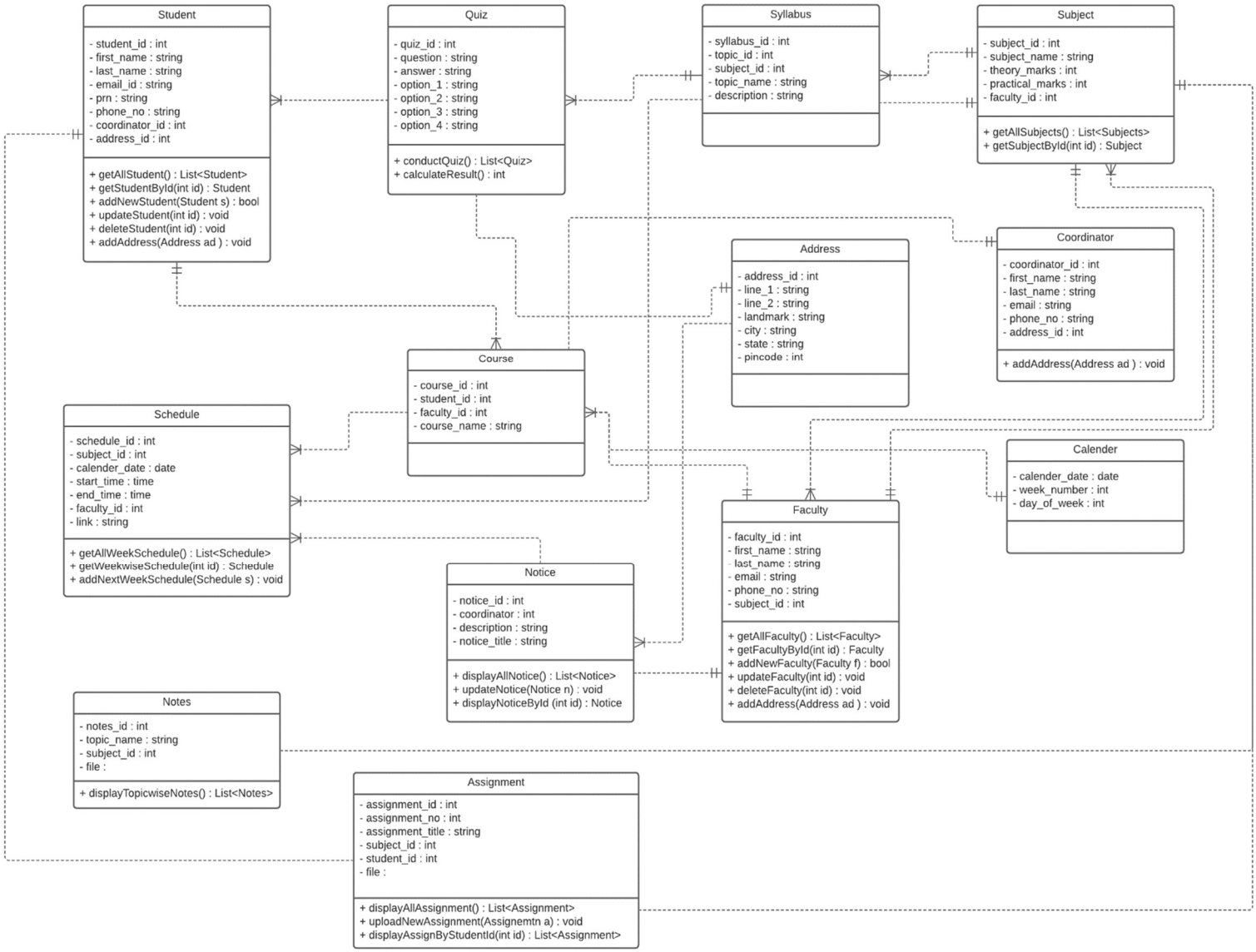
7.4.3 Student use case diagram :



7.5 ER DIAGRAM :



7.6 CLASS DAIGRAM :



8. FUTURE SCOPE :

i. Automatic attendance generation
ii. Repository – to manage all files
iii. Student wise report generation

9. SOFTWARE TOOLS :

Client: Microsoft Internet Explorer, Google Chrome or any web browser

Development Tools :

Frond End : Microsoft Visual Studio Code

Back End : Eclipse IDE

Programming Language:

Frond End : Angular

Back End : Spring boot(Microservices)

Database Server: MySQL Community Server 8.0