**EXPERIMENT-1**

**OBJECTIVE**

To understand about the Functional requirements and Design requirements for Online Course Reservation System.

**INTRODUCTION**

**1) PURPOSE :** The purpose of an online course reservation system is to simplify course enrollment, centralize management, enhance accessibility, streamline payments, track progress, and provide data-driven insights for improved learning and administration.

**2) SCOPE :** The online course reservation system enables students to enroll in courses, instructors to manage content, and admins to oversee operations. It streamlines payments, notifications, progress tracking, and data-driven decision-making.

**3) DEFINATION :** An Online Course Reservation System is a web-based platform that allows students to browse and register, while enabling instructors and administrators to manage course content, enrollment, and operations.

**KEY CONSIDERATIONS**

1) User friendly interface.

2) Real time updates.

3) Search and Filtering.

4) Notifications.

5) Authentication and Security.

**FUNCTIONAL REQUIREMENTS**

**1) User Management :** User Registration, Login and Authentication, Role Management(diff role for student, Instructor and Admin) and Profile Management(user can update their profile, password and notification).

**2) Course Management :** Search and browse courses.

**3) Course Reservation :** Enroll in Courses, Seat availability Check, Cancellation of any Course.

**4) Download Registration Slip**

**DESIGN REQUIREMENT**

**1) User Interface Design :** Responsive, clean and simple layout, user roles(searching and enrolling), UI components ex. search bar.

**2) System Architecture :** Three tier Architecture(Presentation layer, Application layer, Data Layer).

**3) DataBase Management System :** For Structured Data we use MySQL.

**4) Frontend Design :** Home Page, Course Page details, DashBoarad.

**5) Security Design :** Authentication, Data Encryption, Access Control.

**6) Performance and Scalability :** Distribute traffic across multiple servers, Design the system to handle multiple servers.

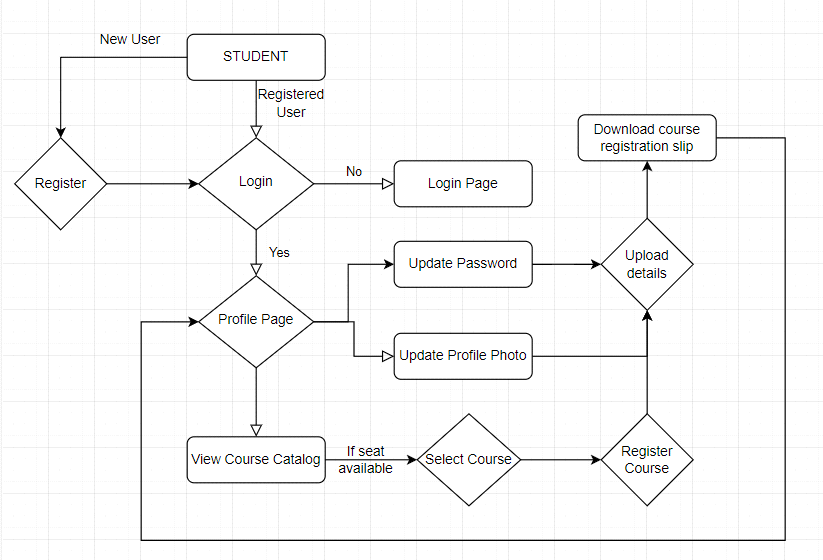
**SOFTWARE REQUIREMENTS**

**1) FRONT END DEVELOPMENT :** HTML, CSS, JavaScript.

**2) BACK END DEVELOPMENT :** C/C++

**3) DATABASE MANAGEMENT :** MySQL.

**ALGORITHM (FLOWCHART)**

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