Exam Registration System

Objective

Creating a software system that needs to serve as an interface between students and exams controllers to streamline the process of exam registration and hall ricket issuance. And replace traditional paper-based methods with a digital platform that offers convenience efficiency and accuracy to both students and teachers.

Introduction

An automated system that manages exams scheduling, registration, and updates for students is known as Exam Registration System. Both administrators (Students and Exam Department) and end users (Students) should be able to utilize the system's features. In addition to receiving notifications, students will be able to check Exam Dates and their Room No. for Exams.

Considerations

User-friendly interface for students and administrators  
Online registration form with personal details input  
Verification of student information against existing database records  
Exam scheduling and fee information display  
Secure fee payment processing  
Automatic Hall ticket generation and issuance  
Integration with existing Student Information Systems (SIS)  
User feedback mechanism for continuous improvement

Functional Requirements  
STUDENT REGISTRATION  
Students will register with credentials(username, password).  
We can recover by e-mail or phone number if we forgot password.  
  
EXAM REGISTRATION  
Search feature will be provided for students to search for specific exams based on subject and course.  
Registration after deadline should not be allowed.  
  
PAYMENT  
Secure payment options for registration fees.  
After payment students should receive a receipt.  
  
DASHBOARD  
Upcoming exams, registered exams and deadlines will be displayed.  
  
NOTIFICATIONS  
Following important notifications/reminders will be displayed-Registration deadlines  
Exam date and times.  
Successful registration/payment

ADMIN FEATURES  
Admin can manage exam schedule, deadlines and registrations.  
Generate reports of student registration and result.

ADMIT CARD  
Exam centres and rooms will be assigned to students randomly. A downloadable admit card will be provided

Design Requirements

Architecture  
Client-Server Architecture: The system should follow a client-server model where students interact with a client (web/mobile app) that communicates with the server, which handles data processing and database management.

Modular Design: The system should be broken down into modules like User Login, Exam Dates, Payment, Admit Card Download and notifications for easier maintenance.

User Interface (UI) Design  
Responsive Design: The system should be responsive, providing a consistent user experience across desktop and mobile platforms.

Database Design  
Relational Database: Use relational databases (MySQL, PostgreSQL) for managing structured data like user profiles, payments, and result.  
Tables: Define tables for users, date of exams, users who registered, result of students.

Software Requirements

Frontend (User Interface)Web Interface: HTML, CSS, JavaScript (React.js or Angular for dynamic content).Mobile App: React Native or Flutter for cross-platform development (iOS/Android

Backend (Server-Side):  
Programming Languages: Java (Spring Boot), Python (Django/Flask), or Node.js (Express).  
Database Management: MySQL, PostgreSQL, or MongoDB for scalable data management.

Payment Integration: Stripe, PayPal, or other payment API integrations for transaction handling.APIs: RESTful APIs to handle communication between the frontend and backend.

Security:  
SSL Encryption: For securing communications between clients and servers.  
OAuth 2.0: For secure user authentication and authorization.