**EXAM SEATING ARRANGEMENT SYSTEM**

Functional Requirements

1: Add/Edit Student Details

As an Admin

I want to add, edit, or delete student details in the database

So that the system has up-to-date and accurate student information for seating arrangements.

2: Classroom Allocation

As an Admin

I want to allocate classrooms to students based on the exam schedule and room availability

So that students are seated in appropriate rooms during exams.

3: Exam Schedule Management

As an Admin

I want to manage and update the exam schedule and timings

So that the seating arrangement is based on the correct schedule.

4: Notification System

As an Admin

I want to send notifications to students and faculty about their allocated rooms and seat numbers

So that they are informed well in advance of the exam day.

5: Seat Search by Students

As a Student

I want to search for my allocated seat using my roll number

So that I can easily find where I am supposed to sit for my exam.

6: Faculty Viewing Seating Arrangements

As a Faculty member

I want to view the seating arrangements for exams I am supervising

So that I can ensure all students are seated correctly during the exam.

7: Report Generation

As an Admin

I want to generate reports of the allocated seating arrangements

So that I can review and print the seating charts for administrative purposes.

8: Conflict Resolution

As an Admin

I want to identify and resolve any conflicts in seating arrangements (e.g., overbooked rooms)

So that all students have a designated seat without issues.

9: Multiple Exam Handling

As an Admin

I want to manage seating arrangements for multiple exams happening simultaneously

So that the seating is efficient and organized for all exams.

10: Seating Arrangement Review

As an Admin

I want to review the seating arrangement before finalizing it

So that I can ensure there are no errors or discrepancies.

**NON-FUNCTIONAL REQUIREMENTS**

1: System Security

As a Developer

I want to ensure the system uses strong encryption for passwords and sensitive data

So that the data is protected from unauthorized access and breaches.

2: System Performance

As a User

I want the system to handle a large number of concurrent users during peak exam times without performance degradation

So that everyone can access the system quickly and efficiently.

3: Data Backup and Recovery

As a System Administrator

I want to have regular data backup and recovery processes in place

So that in case of a system failure, data can be restored without loss.

4: User-Friendly Interface

As a User

I want the application interface to be intuitive and easy to navigate

So that I can perform my tasks without extensive training or confusion.

5: Scalability

As a System Administrator

I want the system to scale easily as the number of students and exams increases

So that the system remains efficient and effective as the college grows.

6: Reliability

As a User

I want the system to be reliable with minimal downtime

So that I can access it whenever needed without interruptions.

7: Response Time

As a User

I want the system to respond quickly to my requests

So that I can perform my tasks without delay.

8: Accessibility

As a User

I want the application to be accessible from various devices and platforms

So that I can use it conveniently from anywhere.

9: Compliance

As an Admin

I want the system to comply with relevant data protection and privacy regulations

So that the data is handled legally and ethically.

10: Maintainability

As a Developer

I want the codebase to be well-documented and maintainable

So that future updates and bug fixes can be implemented easily.