

# Software Requirements Specification

for

## ONLINE EXAM REGISTRATION SYSTEM

*Version 1.0*

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*09.08.2024*

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# **1 Introduction**

## **1.1 Purpose**

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The developed product is a web-based (online) exam registration system. It assists an examiner to create an exam by adding and modifying questions, supplying possible results of a overview of the results of an exam by student group or other factors. A student can solve exams for which they are enrolled and view results and corrections of previous exams. The product will be entirely accessed by a user-friendly web-interface which means that a minimum amount of computer knowledge is required to interact with it.

## **1.2 Document Conventions**

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ERS:Exam Registration System

HTTP:Hyper Text Transfer Protocol

GUI:Graphical User Interface

WWW:World Wide Web

## **1.3 Intended Audience and reading suggestions**

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The different types of readers that this document is intended for are developers, project managers, marketing staff, users, testers and document writers. The rest of this SRS contains overall description, external interface requirements and other requirements suggested sequence for reading the document is begin with the overview sections and proceed through the sections that are most pertinent to each reader type.

## **1.4 Product Scope**

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The developed project is supposed to have the following features

1. There are different kinds of users (Administrators, Examiner etc). can log on to website and access it
2. There is a secure authentication system for different types of user access the website.

3. Each every user has own privilege to access the site.
4. Course materials are also available for different type of courses for which the student applies.
5. It is used to create or modify the exam done by the examiner.

## **1.5 References**

# **2 Overall Description**

## **2.1 Product Perspective**

.  
The online exam registration system which includes registration,examinations and publishing results.This will improve the effectiveness of the examination and also reduce the work load of examiner by allocating the examination schedule based on the modules covered,allocating timetable of examination based on the chapter and subjects.Allowing access for various types of users like administrator,examiner,students etc.

## **2.2 Product Functions**

.  
The examination registration system is a real time examination system which is used for registering for the exam according to the available slots.More or less many product functions are explained in the product perspective itself.now the functional components are-

1. Administrator is provided with the ultimate authority of read,edit,modify and delete all thee contents.
2. Examiner is privileged to add,change,modify and update the date of examination slots are available.
3. The student users are allowed to access the catalogue which consists of study materials for many modules.
4. The student is also privileged to cancel or re-schedule an examination on account of payment.
5. A transaction slip is generated by the administrator after the registration.

## **2.3 User Classes and Characteristics**

1. Students: They are the people who desire to obtain the hall ticket and submit the information to database.
2. Exam Controller: He has the certain privileges to add the registration status to approve the issue of hall ticket. He may contain a group of person under him to verify the documents and give suggestions whether or not to approve the dispatch of hall ticket.

## **2.4 Operating Environment**

The online exam registration system software is developed to work on all java enabled web browsers. It will work on all operating system and requires an internet connection.

## **2.5 Design and Implementation Constraints**

1. The university information and communication system must be compatible with all the web browser, internet applications and platform independent.
2. The software should be connected to web server which runs 24\*7.
3. The user accessing system from any computer must have an internet connection with all browsing capabilities.
4. GUI is available only in English.

## **2.6 User Documentation**

The product will include a user manual. The user manual will include product overview complete configuration of the required software and hardware, technical details and contact information which will include email address.

## **2.7 Assumptions and Dependencies**

1. The user have sufficient knowledge of computers.
2. The remote computer should have internet connection and internet server capabilities.

## **3 External Interface Requirements**

### **3.1 User Interfaces**

1. Login: Log into the system as a student or examiner.
2. Course Registration: Register for a course.
3. Write Exams: Answer questions, traverse between questions, submit answers.
4. Results: Results of previously written exams.
5. Study materials: Download notes and other study materials.
6. Feed Questions: Feed questions and answer into the database.
7. Reports: Reports of students results.
8. Administer courses: Availability, fee, add and remove courses.
9. Administer Students: Add, remove, manage students.

### **3.2 Hardware Interfaces**

Since the application does not have any designated hardware, it does not have any direct hardware interfaces. The physical servers are managed by the servers OS. The hardware connection to the database server is managed by the underlying operating system on the application server and the system.

### **3.3 Software Interfaces**

1. Front end: HTML/CSS/Javascript for the user interface.
2. Back end: Django (or a similar framework) for handling business logic and database interactions.
3. Database: SQLite or MySQL for storing user and exam data.

### **3.4 Community Interfaces**

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The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating system for both the application and the web portal. Required protocols-HTTPS, FTP etc.

## **4 Functional Requirements**

### **4.1 User Registration and Authentication**

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This allows students to create accounts, log in, and manage their profiles securely.

### **4.2 Exam Scheduling**

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Provides options for students to view available exam dates and times and register for their preferred slots.

### **4.3 Payment Processing**

.  
Facilitates the payment of exam fees through secure online payment gateways

### **4.4 Document Upload**

.  
Enables students to upload required documents, such as identification or educational certificates.

### **4.5 Exam Information**

.  
Displays detailed information about the exams, including syllabus, format, and guidelines.

## **4.6 Notifications and Alerts**

.  
Sends reminders and alerts about upcoming exams, deadlines, and any changes in schedules or requirements.

## **4.7 Confirmation and Receipts**

.  
Issues electronic confirmation of registration and receipts for payments made.

## **4.8 Admin Dashboard**

.  
Provides administrators with tools to manage registrations, review payments, and generate reports.

## **4.9 Exam Resulting Tracking**

.  
Allows students to view their exam results and download certificate or score reports

# **5 Other Non-Functional Requirements**

## **5.1 Performance Requirements**

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Performance requirements define acceptable response times for system functionality.

1. The load time for user interface screens shall take no longer than two seconds.
2. The login information shall be verified within two seconds.

## **5.2 Safety Requirements**

1. Data Protection: Ensure user data, including personal information and exam details, is safeguarded against loss or corruption.



2. Error Handling: Implement robust error handling to prevent system crashes or loss of data during unexpected issues.
3. Backup and Recovery: Regularly back up system data and provide mechanisms for recovery in case of data loss or system failure.
4. User Notifications: Alert users about critical system issues, registration status, or changes in exam schedules.

### **5.3 Security Requirements**

1. Authentication and Authorization: Implement strong user authentication (e.g., multi-factor authentication) and authorization mechanisms to ensure only authorized users can access or modify exam-related data.
2. Data Encryption: Use encryption for data in transit (e.g., HTTPS) and at rest to protect sensitive information from unauthorized access.
3. Audit Trails: Maintain logs of user activities, including registration and modification actions, to detect and trace security breaches.
4. Vulnerability Management: Regularly update and patch the system to protect against known vulnerabilities and threats.
5. Session Management: Implement secure session management to prevent session hijacking and unauthorized access.

### **5.4 Software Quality Requirements**

1. Performance: Ensure the system can handle the expected number of concurrent users and transactions without performance degradation.
2. Scalability: Design the system to scale efficiently with increasing user load or additional features.
3. Usability: Provide a user-friendly interface that is easy to navigate and understand for users with varying technical expertise

### **5.5 Business Rules**

1. Server Administrator is under extreme characteristics the administrator has the privileges to back up the data's but can't modify the contents.

2. User has the rights to claim the payment made if the ticket is under waiting list on the date of journey but 10 percent will be deducted. The user will be able to book for just 6 persons at a time.

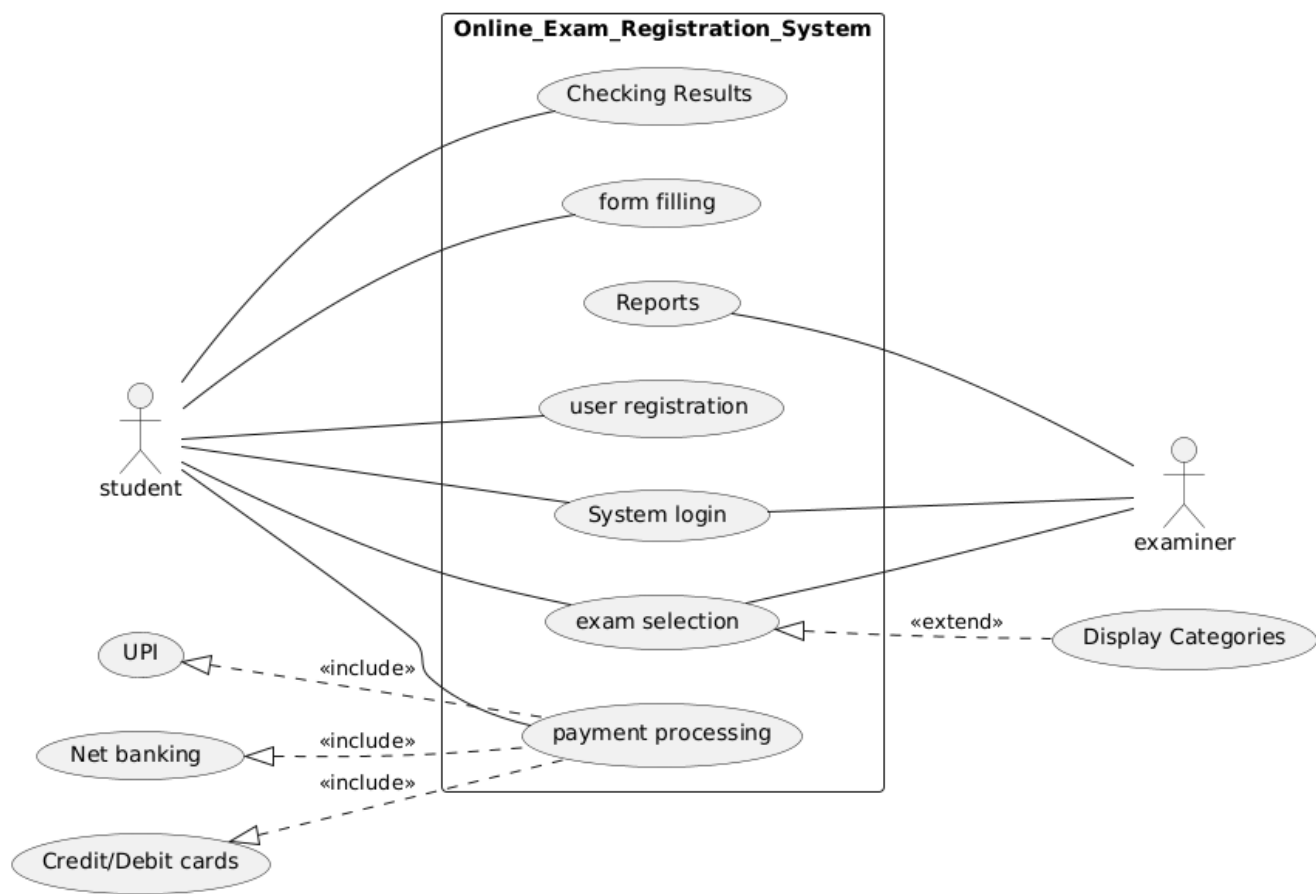


Figure 1: Use case Diagram

### Online exam registration system

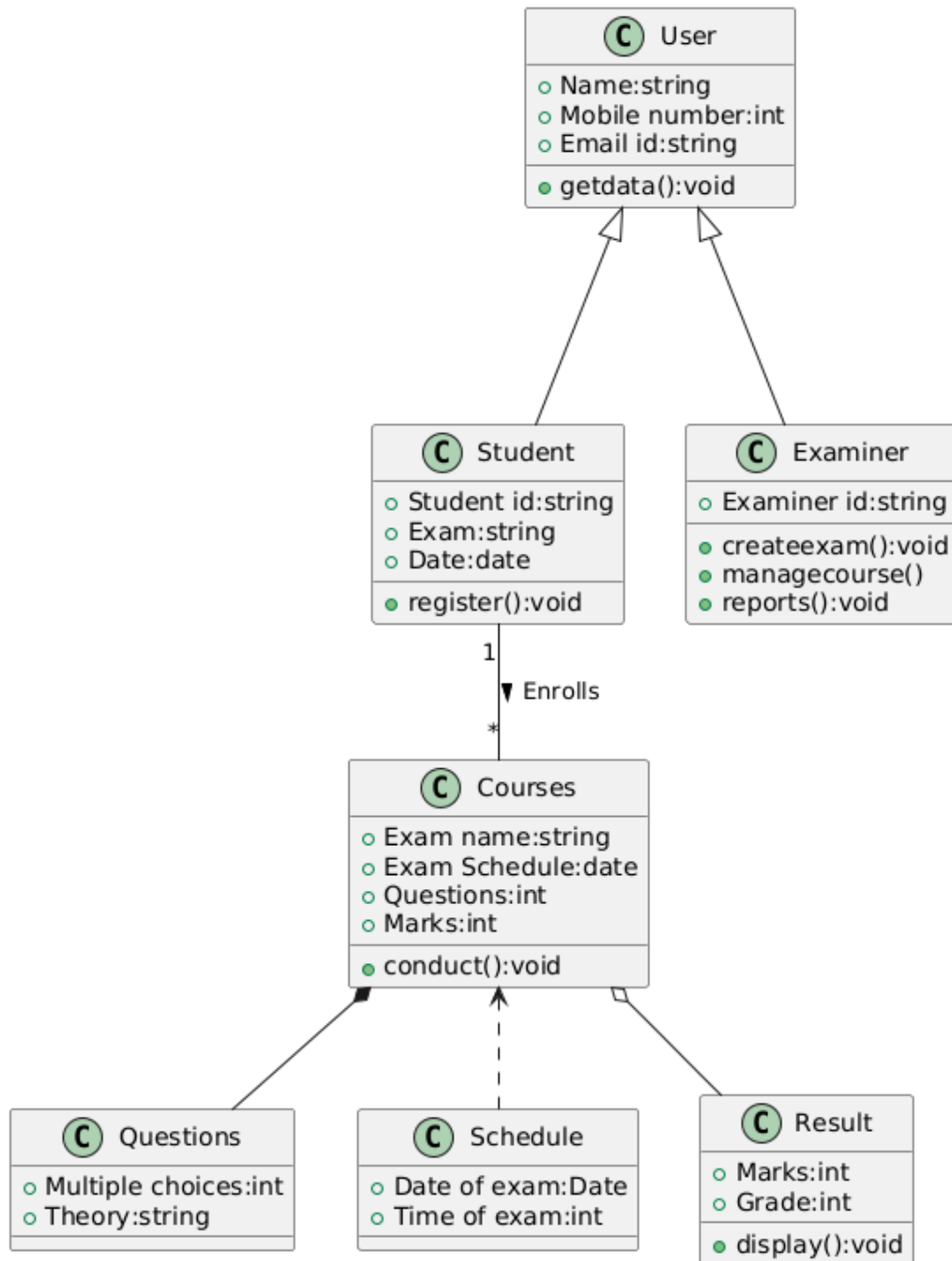


Figure 2: Class Diagram