

**SOFTWARE REQUIREMENTS SPECIFICATION**  
**TITLE : ONLINE COURSE REGISTRATION SYSTEM**  
**INDEX**

<b>1. Introduction.....</b>	<b>2&amp;3</b>
1.1 Purpose.....	2
1.2 Document Conventions.....	2
1.3 Intended Audience and Reading Suggestions.....	2
1.4 Product Scope.....	3
1.5 References.....	3
<b>2. Overall Description.....</b>	<b>3&amp;4</b>
2.1 Product Perspective.....	3
2.2 Product Functions.....	3
2.3 User Classes and Characteristics.....	3
2.4 Operating Environment.....	4
2.5 Design and Implementation Constraints.....	4
2.6 User Documentation.....	4
2.7 Assumptions and Dependencies.....	4
<b>3. External Interface Requirements.....</b>	<b>5</b>
3.1 User Interfaces.....	5
3.2 Hardware Interfaces.....	5
3.3 Software Interfaces.....	5
3.4 Communications Interfaces.....	5
<b>4. System Features.....</b>	<b>5</b>
4.1 System Features one by one.....	5
<b>5.Other Nonfunctional Requirements.....</b>	<b>6&amp;7</b>
5.1 Performance Requirements.....	6
5.2Security Requirements.....	6
5.3Safety Requirements.....	6
5.4Software Quality Attributes.....	7
5.5Business Rules.....	7

## **1. Introduction**

Course Reservation System is an interface between the Student and the Registrar responsible for the issue of the Course. It aims at improving the efficiency of the issue of Course and reduces the complexities involved in it to the maximum possible extent.

### **1.1 Purpose**

Manual course registration is a tedious task where mistakes occur and these courses have limited availability of seats. It also requires a lot of paperwork . Students who apply to them have no idea of the prerequisites needed and a large number of students apply to the same course. An online course registration software saves time, shows the availability of seats and prerequisites required.

### **1.2 Document Conventions**

- **Registrar** - Refers to the super user with the privilege to manage the entire system.
- **Applicant** - One who wishes to register for the Course
- **OCRS** - Refers to the Online Course Reservation System.
- **HTML** - HyperText Markup Language used for creating web pages.
- **J2EE** - Java 2 Enterprise Edition is a programming platform for developing and running distributed java applications.
- **HTTP** - HyperText Transfer Protocol.
- **TCP/IP** - Transmission Control Protocol/Internet Protocol is the communication protocol used to connect hosts on the Internet

### **1.3 Intended Audience and Reading Suggestions**

This document is intended for the following group of people:-

- Developers for the purpose of maintenance and new releases of the software.
- Documentation writers.
- Registrar
- Testers.

## 1.4 Product Scope

- The System provides an online interface to the user where they can fill in their details and submit the necessary documents (maybe by scanning).
- The Registrar concerned with the issue of course can use this system to reduce his workload and process the application speedily.
- Provide a communication platform between the Applicant and the Registrar.
- The System also allows to view course details and availability of seats in the course chosen by the applicant which can be used as a prerequisite for the applicant.

## 1.5 References

- IEEE Software Requirement Specification format.
- [www.google.co.in](http://www.google.co.in)
- [www.wikipedia.com](http://www.wikipedia.com)

## 2. Overall Description

### 2.1 Product Perspective

The OCRS acts as an interface between the 'Applicant' and the 'Registrar'. This system tries to make the interface as simple as possible and at the same time not risk the security of the data stored. This minimizes the time duration in which the user receives the course details.

### 2.2 Product Functions

- Secure Reservation of information by the Applicant.
- SMS and Mail updates to the students by the Registrar.
- The registrar can generate reports from the information and is the only authorized personnel to add the eligible application information to the database.
  - The Applicant can know about the status of each course.
  - The Applicant can view course details.
  - The system automatically generates login credentials to the Applicants and allows the Applicant to change the password if needed.

### 2.3 User Classes and Characteristics

- **Applicant** - They are the person who desires to obtain a course and submit the information to the database.
- **Administrator/Registrar** - He has certain privileges to add the course status and to approve the issue of the course. He may contain a group of persons under him to verify the documents and give suggestions on whether or not to approve the dispatch of course.

## **2.4 Operating Environment**

In order to run this software we need the following components, a windows machine, Internet Explorer or Mozilla ,or Google Chrome browser. The remaining details will be listed in the “External interface requirements” section.

## **2.5 Design and Implementation Constraints**

- The applicants require a computer to submit the information
- Though security is given a high importance , there is always a chance of intrusion in the web world which requires constant monitoring.
- The user has to be careful while submitting the information. Much care is required.
- An Applicant can't login in more than one system at a time.
- An Applicant can have only three tries to login into their account.If tries exceed more than three times it will prompt a message to “try after some time”.
- An Applicant can't give more than one application to the same course.
- Every semester an Applicant can't apply to more than eight courses.

## **2.6 User Documentation**

- **Applicant**
  - These users have access only to view courses and status of the courses they applied to.They also receive updates in the system via SMS or email.
- **Administrator**
  - He/She can contact an applicant regarding the course they applied to and updates in the system.The registrar can generate reports from the information and is the only authorized personnel to add the eligible application information to the database.

## **2.7 Assumptions and Dependencies**

- The Applicants and Administrator must have basic knowledge of computers and the English language.
- The applicants may be required to scan the documents and send them.

### **3. External Interface Requirements**

#### **3.1 User Interfaces**

The following browsers required to launch this app in the client system are Internet Explorer or Mozilla Firefox or Google Chrome .

#### **3.2 Hardware Interfaces**

The server is directly connected to the client systems. The client systems have access to the database on the server .

#### **3.3 Software Interfaces**

- **Front End Client**-The student and register online interface is built using JSP and HTML. the administrators' local interface is built using Java
- **Web Server**-TomCat Apache application server(Oracle Corporation).
- **Back end**- Oracle 11g database

#### **3.4 Communications Interfaces**

A database connection is required to save registered user data and course details.

### **4. System Features**

#### **4.1 Login**

The user enters a username and password and chooses if the user is a student or a registrar. If enter details are valid, the user account becomes available. If it is invalid, an appropriate message is displayed to the user.

#### **4.2 View course details**

In this System, a student can search all the courses available to him and choose the best course he wants. The student can view the course duration, faculty ,and department of the courses he may choose. The registrar can view course details to check on a course.

#### **4.3 Register for course**

When a student has successfully chosen a course, he can register for that course. Upon registration, the student's details are stored in the database.

#### **4.4 Pay fee**

After registration for any course, the student may see the details of his current course. He may wish to know details about fees and other information.

#### **4.5 Check Status**

The student rises to check the status in which category applied. The system displaced the status information to the student. Below are the use case, activity, sequence, state chart, and deployment diagrams.

The Registrar can generate reports to check who and how many registered for each course

#### **4.6 Updating course details**

Only the Registrar/Administrator can add or delete or modify courses and also details about them.

#### **4.7 Notifications**

The applicant will receive notifications on any updations related to their course.

### **5. Other Nonfunctional Requirements**

#### **5.1 Performance Requirements**

##### **5.1.1 Response Time**

- The maximum response time for the submission will be one minute.

##### **5.1.2 Cost Sensitivity**

- Under all circumstances, the maximum cost payable as submitted by the user will be the maximum cost charged to the user.

#### **5.2 Security Requirements**

The main security concern is for users' accounts and proper login mechanisms should be used to avoid hacking.

#### **5.3 Safety Requirements .**

Student login information should be securely saved into the database without any changes in information.

## **5.4 Software Quality Attributes.**

### **5.4.1 Availability**

- Student login and register core status should be available in the Re-login .

### **5.4.2 Security**

- The main security concern is for the use of the account and a proper login mechanism should be used to avoid hacking.

## **5.5 Business Rules**

The importance of business rules is obvious for business analysis however, how to document the business rules identified is often not that obvious. The truth is that it can be done in many different ways.