**EDU ERP SYSTEM**

**(Student Information System)**

**Software Requirements Specification Document**

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# Introduction

The following subsections of the Software Requirements Specifications (SRS) document provide an overview of the entire system.

## Purpose

The Software Requirements Specification (SRS) will provide a detailed description of the requirements for the competition portal (I-Compet). This SRS will allow for a complete under-

standing of what is to be expected of the I-Compet to be constructed. The clear understanding of the I-Compet and it’s functionality will allow for the correct software to be developed for the end user and will be used for the development of the future stages of the project. This SRS will provide the foundation

for the project. From this SRS, the I-Compet can be designed, constructed, and finally tested.

This SRS will be used by the software engineers constructing the I-Compet and the end users. The software engineers will use the SRS to fully understand the expectations of I-Compet to construct the appropriate software. The end users will be able to use this SRS as a “test” to see if the software engineers will be constructing the system to their expectations. If it is not to their expectations the

end users can specify how it is not to their liking and the software engineers will change the SRS to

fit the end user’s needs.

## Scope

The software product to be produced is a Online Competition Portal which will manage different types of contests over the web and used to replace old fashioned way of organizing a competition.The system will create a competition for end user which will be hosted by an organizer. The system provides an organizer with an option of where to organize a competition.These overall functionality will be described in detail in section 2-Overall Description.

There are three end users for the I-Compet. The end users of the system are,

* Admin
* Organizer
* Participant

The I-Compet’s objectives is to provide a system to manage different types of competitions online. The system will effectively work on saving valuable time and efforts of many people in organizing and participating in a contest. It provides a quick access to user to create a competition of their choice viz. photo, video, audio, text entry contests.The system also provides organizers to promote their product or service through end user engagement with different competitions online. The system should be user appropriate, easy to use, provide easy recovery of errors and have an overall end user high subjective satisfaction.

## Definitions, Acronyms, and Abbreviations.

* SRS – Software Requirements Specification
* I-Compet – Online Competition Portal
* O.S.-Operating System
* Subjective satisfaction – The overall satisfaction of the system
* End users – The people who will be actually using the system

## Overview

The SRS is organized into two main sections. The first is The Overall Description and the second is the Specific Requirements. The Overall Description will describe the requirements of the I-Compet from a general high level perspective. The Specific Requirements section will describe in detail the requirements of the system.

# The Overall Description

Describes the general factors that affect the product and its requirements. This section does not state specific requirements. Instead, it provides a background for those requirements, which are defined in section 3, and makes them easier to understand.

## Product Perspective

The I-Compet is a product that focuses on organizing a competition over the web. It generally help organizers to promote their products and services through the use of end user involvement. Product perspective is to reduce time and efforts and enhance user communication and employee engagement.

### Hardware Interfaces

**Server Side:**

The web application will be hosted on one of the department’s Windows servers and connecting to one of the SQL Database server. The web server is listening on the web standard port, port 80.

**Client Side:**

The system is a web based application.clients are requiring using a modern web browser

such as Mozilla Firebox , Internet Explorer 8.0 and Enable Cookies. The computer must have an Internet connection in order to be able to access the system.

### Software Interfaces

An Operating System is capable of running a modern web browser which supports HTML

version 3.2 or higher.

The database for the I-Compet will be configured using PHP MySQL . The database tables include contest, admin, organizer, participants, entries, purchase\_plans, judges, winners, reports, account. These can be modified by the admin only.

* The I-Compet database include all the contest and its users information.

## Product Functions

I-Compet is used to create and manage different types of contests online. This software help the user to easy access the information of students .This software is useful for organizations to promote their products.

* Allows for creating contests.
* Easily track contests just by its name and status of availability.
* Includes customizing a contest as per organizer’s need.
* When a contest is created it gets allocated under a companies/organizations name.
* Ability to modify a contest by an Oranization which created a contest.
* User can try creating a contest for free.
* More customizable, featured and promotable contest can be created in paid version.
* Payments can be made through online transactions.
* Keep track of status of contests and generate reports to help generating more leads.
* Maintains Information about Placements Details of Student weather student is active/Debarred
* Reports generated to audit Student complete information for placements
* Creation of users and assigning passwords

## User Characteristics

The users of the system are trainer, counseller, placement head and the administrator who maintain the system.The users are assumed to have basic knowledge of the computers and Internet browsing. The administrator of the system to have more knowledge of the internals of the system and is able to rectify the small problems that may arise due to disk crashes, power failures and other catastrophes to maintain the system. The proper user interface, users manual, online help and the guide to install and maintain the system must be sufficient to educate the users on how to use the system without any problems.

## Assumptions and Dependencies

The users have sufficient knowledge of computers.The Institute computer should have Internet connection and Internet server capabilities.The users know the English language, as the user interface will be provided in English. The product can access the Institute student databases.

# Specific Requirements

This section contains all the software requirements at a level of detail, that when combined with the system Data Flow diagram, Use Case diagram, Class diagram, Sequence diagram, Activity diagram,and Collaboration diagram, are sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements.

## External Interfaces

The Student Information System will use the standard input/output devices for a personal computer. This includes the following:

* Keyboard
* Mouse
* Monitor
* Printer

### User Interfaces

The User Interface Screens are described in table 1.

All pages of the system are following a consistent theme and clear structure. The occurrence of errors should be minimized through the use of checkboxes, radio buttons and scroll down inorder to reduce the amount of text input from user. JavaScript implement in HTML in order to provide a Data Check before submission. HTML Tables to display information to give a clear structure that easy to understand by user.

Each level of user will have its own interface and privileges to mange and modify the project information such as supervisor able to monitor/manage his student progress.

Table 1: Student Information System User Interface Screens

| **Screen Name** | **Description** |
| --- | --- |
| Login | Log into the system as a admin,trainer,counseller or placement head |
| Enquiry | Save student information |
| Enrollment | Retrieve button ,Modify student information(Education details) |
| Batch | Batch allocation(Time,Id,Course) |
| Attendance | Maintaining Students attendance |
| Assessment | Scheduling of exams ,mock-interviews, aptitude test etc. |
| Placement | Maintains the students placement details |
| Reports | Select, view, save, and delete reports |

### Software Interfaces

An OS is capable of running a modern web browser which supports HTML version 3.2 or higher.

All databases for the SIS will be configured using SQL Server-2008.

### Hardware Interfaces

**Server Side:**

The web application will be hosted on one of the department’s Windows servers and connecting to one of the SQL Database server. The web server is listening on the web standard port, port 80.

**Client Side:**

The system is a web based application.clients are requiring using a modern web browser

such as Mozilla Firebox , Internet Explorer and Enable Cookies. The computer must have an Internet connection in order to be able to access the system.

### Communication Interfaces

The HTTP protocol will be used to facilitate communications between the client and server.

## Functional Requirements

Functional requirements define the fundamental actions that system must perform.

The functional requirements for the system are divided in Enquiry, Enrollment, Assessment and placement managment.

1. Ability to have a detailed information about student.
2. Ability to have enroll student with unique number.
3. Ability to have enrolled students payment details.
4. Ability to have detailed information about batch allocation and management.
5. Ability to have information about lab management.
6. Ability to have information on working of trainer and attendance of student.
7. Ability to have information about students assessment.
8. Ability to have student whole data as a report format to have a criteria match finding for placement.
9. Ability to have placement record of student.

10. Maintain status of student as selected or rejected.

11. Maintain the students successful completion reports.

## Nonfunctional Requirements

Non Functional requirements define the needs in terms of performance, logical database requirements, design constraints, standards compliance, reliability, availability, security, maintainability, and portability.

### Performance Requirements

Performance requirements define acceptable response times for system functionality.

* The load time for user interface screens shall take no longer than two seconds.
* The log in information shall be verified within five seconds.
* Queries shall return results within five seconds.

### Logical Database Requirements

The logical database requirements include the retention of the following data elements. This list is not a complete list and is designed as a starting point for development.

**Enquiry System**

* Student first name
* Student last name
* Student address
* Student phone number
* Assgin enquiry no
* Date of birth
* Student E-mail
* Educational qualification
* Student school/university Name
* Student parent Name
* Student parent occupation
* Monthly household Income
* Student professional Status
* Org. Name
* Work Experience
* Designation
* Student enquiry source
* Student feedback

**Admission System**

* Student first name
* Student last name
* Student address
* Student phone number
* Assgin enquiry no
* Date of birth
* Student E-mail
* Educational qualification
* Student school/university Name
* Student parent Name
* Student parent occupation
* Monthly household Income
* Student professional Status
* Org. Name
* Work Experience
* Designation
* Student enquiry source
* Known languages
* Payments
* Full payments
* Payments in Installments

**Batch Systems**

* Batch Name
* Course Name
* Batch timings
* Students Attendance
* Lab management
* Trainer management

**Assessment systems**

* Aptitude Test
* Mock Test
* Interviews
* G.D

**Placement Systems**

* Qualification
* Marks
* Age
* Course

### Design Constraints

**Software Language Used**

The languages that shall be used for coding the Student Information System are Java Servlets,

Java Server Pages (JSP), HTML. For working on the coding phase of the Student Information System,

the Internet Information Services (IIS) Server needs to be installed.

**Development tools**

Will make use of the available Java Development Tool kits for working with Java Beans and

Java Server Pages . Also will make use of the online references available for developing programs in

JSP, HTML.

### Standards Compliance

There shall be consistency in variable names within the system. The graphical user interface shall have a consistent look and feel.

### Reliability

The system has to be very reliable due to the importance of data and the damages incorrect or incomplete data can do.

### Availability

The system is available 100% for the user and is used 24 hrs a day and 365 days a year.The

system shall be operational 24 hours a day and 7 days a week.

### Security

Counsellor,Trainer,Placement head and admin will be able to log in to the Student Information System. Counsellor will have access to the Enquiry and Enrollment subsystems.The Trainer will have access to the Attendance subsystem and Assessment subsystems. The Placement Head will have access to the Placement cell subsystems. The Admin will have acces to all subsystems.Access to the various subsystems will be protected by a user log in screen that requires a user name and password.

### Maintainability

The Student Information System is being developed in Java. Java is an object oriented programming language and shall be easy to maintain.

### Portability

The Student Information System shall run in a modern web browser which supports HTML version 3.2 or higher.

**4 Change Management Process**

Changes to this document may be made after approval from the project manager and the client approval officer.

# Document Approvals

## Team One Approval

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

Date

## Team Two Approval

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Date

# Supporting Information

A system context diagram as well as use cases and use case descriptions have been developed in separate documents.