Software Requirements Specification

for

Examination cell system

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this document is to provide the software requirement specification report for the Exam cell database of our university.

1.2 Document Conventions

For this document, I have used arial font with size 11

1.3 Intended Audience and Reading Suggestions

This project is college level project and is implemented under the guidance of our college professors. This is useful for both students and faculty and also for the exam cell unit.

1.4 Product Scope

The purpose of the project is to create a comfortable platform for the exam cell in preparing the exam schedule and for the users, ie both the students and faculty can easily access their exam schedule, allotment.

1.5 References

IEEE830-1998 SRS form.

2. Overall Description

2.1 Product Perspective

The database system stores the following information as shown below:

** Student info:*

It contains the basic information of the students such as name, enroll no, batch, courses enrolled etc.

** Exam schedule:*

With the above information, it can store data like number of students enrolled for each subject and can generate the schedule for his/her courses.

**Seating allotment / Invisilation schedule:*

It provides both the students and faculty their respective room for taking up the exam / doing invisilation.

2.2 Product Functions

These are the following functions performed by our app.

1. Provides the students with the exam schedule which includes only the courses in which he/she is enrolled.

2. On the day before the following exam, the student is provided with the room details where he/she is going to take up the exam.

3. In the same way, it is going show the faculty members with their respective invisilation room details.

2.3 User Classes and Characteristics

This database system is primarily used by the exam cell to generate the exam schedule and also to generate the seating/invisilation allotment for both students and faculty.

Students and faculty can access the following information with the help of a mail which is sent respectively to the users.

2.4 Operating Environment

Operating environment for the following database is as follows:

Software components:

IDE: Visual studio 2015 enterprise

Cloud server: Microsoft Azure cloud

Database: Microsoft Azure storage explorer.

2.5 Design and Implementation Constraints

There are no particular constraints but these can be : global schema, fragmentation schema, allocation schema.

2.6 User Documentation

We will provide the online as well as hard copy to our customer which includes the instructions of the documentation of our app.

But for the users of our web app, no need to provide any manual as our product is self-explanatory.

2.7 Assumptions and Dependencies

Assumptions:

We assume that the minimum attendence to be eligible to take up the exam is 75%.Those who are having less will not be shown their allotment in the following exam. But later if they are given permision to take up the exam, but then he/she will not get a mail regarding their seating allotment. Same happens with the faculty, if he/she is on leave on that particular day, they might be alloted with the invisilation schedule.

Dependencies:

Nucleus ERP

Shufftling algorithm

3. External Interface Requirements

3.1 User Interfaces

IDE: Visual studio 2015 enterprise.

Back end software: Microsoft azure storage explorer.

Cloud platform: Microsoft azure.

Algorithm: Shuffling algorithm.

3.2 Hardware Interfaces

Any operating system.

Browser which supports CGI, Web app, JavaScript, HTML5, Asp.net.

3.3 Software Interfaces

OS	*Windows 10 pro (for the best support of Visual studio 2015 enterprise)as it has a developer mode which is designed for developing purpose and it also supports high level software's for developing purpose.*
IDE(Integrated development environment)	*Visual studio 2015 enterprise is the best platform for developing web app in (asp.net). It makes easy for developers to host the web app to Microsoft azure cloud.*
Cloud server	*Microsoft Azure. Our web app will be hosted in Microsoft azure cloud as it can handle million hits per second and it is easy to work in azure than compare to other cloud servers.*
Database	*Microsoft azure storage explorer as it is easy to create database and also compatible to connect with Microsoft azure cloud server.*
Asp.net	*It is an open source web framework for building modern web applications and services and another reason for choosing this is we use more tools from Microsoft for this software.*
HTML5 and CSS	*We use this two common languages to develop the front end and styling for the web app.*
Algorithm	*Shuffling algorithm is used to make seating allotment for the students and invigilation duty for the faculties.*

3.4 Communications Interface

This project supports all types of web browsers.

It will communicate with the server to send e-mail to the particular person or group.

The communication standards will be HTTP.

We are using simple electronic for both student and faculty details.

4. System Features

4.1 System Feature 1

Exam schedule:

Description and priority :

The system contains the courses enrolled for each student and accordingly generates the examination schedule.

It has high priority since it provides the student only with the exam schedule which he is going to appear.

Stimulus/Response sequences:

Generates the exam schedule with date and time.

4.2 System Feature 2

Seating allocation/Invisilation:

Description and Priority:

The Exam seating planner maintains the information on students:

With Enroll number,Batch no,Branch,Courses along with their seating room.

and faculty: with Name,unique id no along with their invisilation room.

It has a high priority because without having a proper seating plan, its very difficult to conduct an examination.

Stimulus/Response sequences:

Search for seating room/invisilation room for a particular exam

Displays the allocated room number

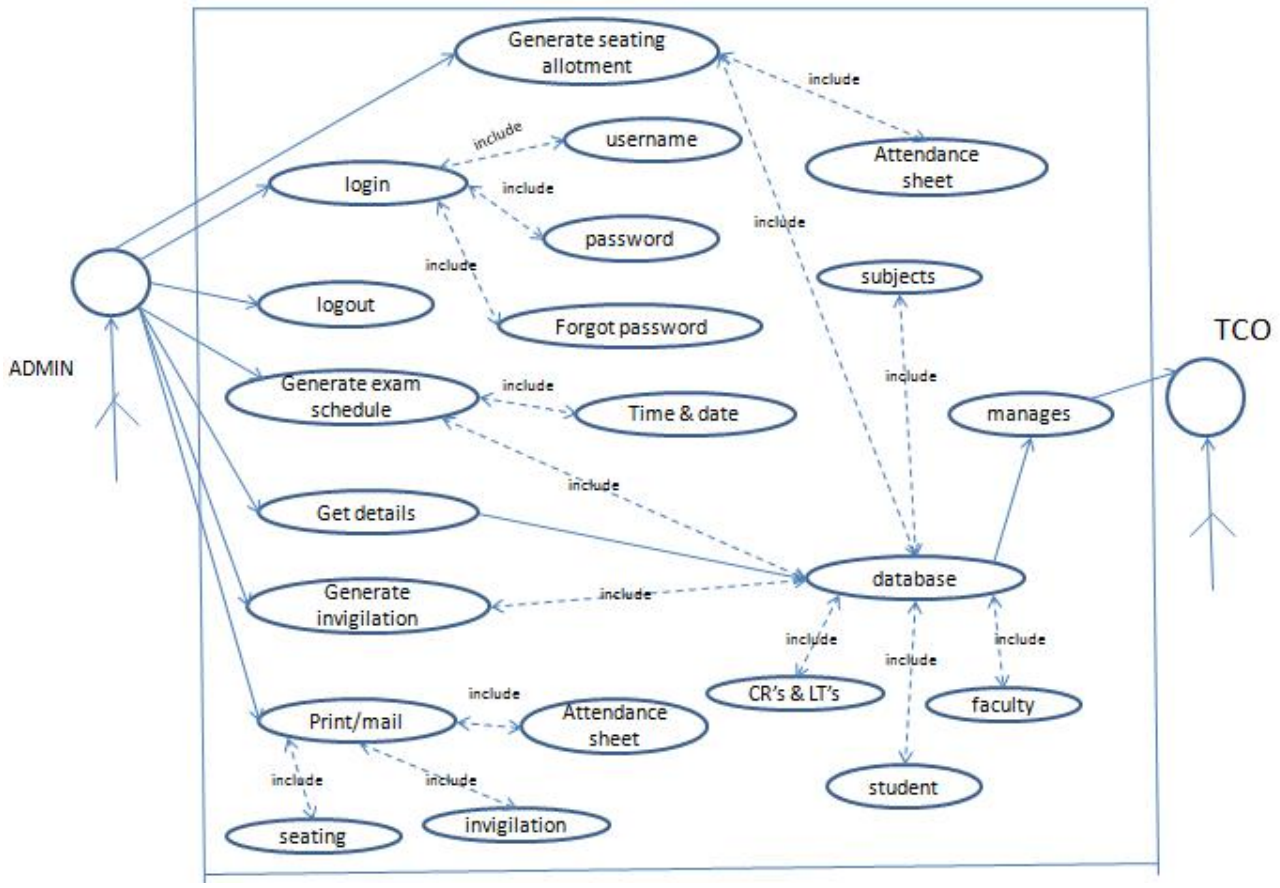
Functional requirement:

Distributed database

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The performance can be listed by a Use case diagram.



5.2 Safety Requirements

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

5.3 Security Requirements

Both students and faculty can get the access through their mails. Security systems need database storage just like many other applications. However, the special requirements of the security market mean that vendors must choose their database partner carefully.

5.4 Software Quality Attributes

Availability: The planning is done based on number of available students taking the exam and total number of courses enrolled by all of them.

Correctness: The planning will be in manner that a student name is not repeated in allotment list and also the same with the faculty.

Maintainability: The administrator of the exam cell will maintain the whole process.

Usability: It will be user friendly and will definetly satisfy most of them.

5.5 Business Rules

The role or the business rule is to provide user friendly mechanism in such a way that all the required information can be accessed through one mail .

6. Other Requirements

To be determined.