**Software Requirements**

**Specification**

**for**

**Online Examination System**

**version 1.0**

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**10th January 2018**

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# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Purpose

This web application provides facility to conduct online examination so that the student can attempt the exam from anyplace. It saves time as it allows number of students to attempt the exam at a time and the result will be generated automatically.

## Document Conventions

This document was prepared using the IEEE recommended practice for Software Requirements Specification.

## Intended Audience and Reading Suggestions

The different types of reader that this document is intended for are developers, project managers, marketing stuff, users, testers and documentation writers. The rest of this SRS contains overall description, external interface, requirements, system features, non-functional requirements and other requirements. Suggested Sequence for this document- begin with the overview and proceed through the sections that are most pertinent to each reader type.

## Product Scope

Scope of this project is very broad compared to manually taken exams. They are:

* This can be used in educational institutions as well as corporate world.
* User’s location doesn’t matter much as it is a web application.
* No restriction that the examiner must be present when the candidate takes the test.
* No manual work of preparing and storing the result information.
* Less time consumption, as the result is calculated immediately after the test and is processed by the server itself.
* For students, it saves time of going to far away centers to give exams.

## References

## [www.atlantis-press.com/php/download\_paper.php?id=4176](http://www.atlantis-press.com/php/download_paper.php?id=4176)

## https://www.irjet.net/archives/V3/i1/IRJET-V3I119.pdf

# Overall Description

## Product Perspective

This is an online examination system which can be accessible via internet 24 hours a day, 7 days a week. The objective of this is to reach and connect student and the examiner in remote communities and conduct exams in a virtual environment online. This application will allow only the registered users to enter the test module.

## Product Functions

The functions are divided according to the user types such as

* The administrator can add/edit the exams in the test module.
* The student can update his/her profile and give various exams.

## User Classes and Characteristics

The various users of this applications are classified into two types

* Administrator
* User

The application requires the user to have characteristics such as the user should be able to communicate and write in English and should have previous experience of giving an online exam. If not, the student should be instructed about the basics usage of the application.

## Operating Environment

This application runs with the environment of a web browser and internet connection is required if it is made online.

## Design and Implementation Constraints

While giving the examination, the candidate is given a set amount of time and the remaining time should be displayed, after which the examination should be closed.

## User Documentation

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

## Assumptions and Dependencies

There are some assumptions regarding this product.

* It is assumed that the user has basic knowledge of the system as any action by the user is considered valid during an examination.
* It is assumed that the data entered by the user while the registration is true.
* It is assumed that the candidate doesn’t cheat during the examination as there are no supervisors around to monitor.

# External Interface Requirements

## User Interfaces

**Registration Screen:**

Various fields available on this screen will be:

Login name.

Email Id.

Password.

**Login Screen:**

Fields available on this screen will be:

Login name.

Password.

**Entering Questions:**

Various fields are:

Exam name.

Number of questions.

**Result Displaying Screen:**

Various fields are:

Number of correct answers.

Number of wrong answers.

## Hardware Interfaces

Screen Resolution of atleast 800X600 is required for proper and complete viewing of screens. Higher Resolution can also be accepted.

## Software Interfaces

Any windows based operating system.

Mysql Server Database.

PHP and JavaScript.

## Communications Interfaces

None

# System Features

Some Performance requirements identified is listed below:

The database shall be able to accommodate a minimum of 1,000 records of Users.

There are no other specific performance requirements that will affect development

# Other Nonfunctional Requirements

## Performance Requirements

The system must be interactive and the delays involved must be less .So in every action-response of the system, there are no immediate delays. In case of opening windows forms, of popping error messages and saving the settings or sessions there is delay much below 2 seconds, In case of opening databases, sorting questions and evaluation there are no delays and the operation is performed in less than 2 seconds for opening ,sorting, computing, posting > 95% of the files. Also when connecting to the server the delay is based editing on the distance of the 2 systems and the configuration between them so there is high probability that there will be or not a successful connection in less than 20 seconds for sake of good communication.

## Safety Requirements

The database may get crashed at any certain time due to virus or operating system failure. Therefore it is required to take the database backup.

## Security Requirements

Some of the factors that are identified to protect the software from accidental of malicious access, use, modification below. Keep specific log or history datasets.

## Software Quality Attributes

The quality of the system is maintained in such a way so that it can be very user friendly to all the users. The software quality attributes are assumed as under:

* Accurate and hence reliable.
* Secured.
* Fast speed.
* Compatibility.

## Business Rules

* Registered professors or lecturers can prepare the questions and update them in the system.
* Registered users are the candidate/student can attempt the questions.
* Any college/university can adopt this system and conduct the examinations online.

# Other Requirements

A database is maintained to store all the questions and its answers and also the information about users and the admins.

# Appendix A: Glossary

# Appendix B: Analysis Models

Figure :Use Case Diagram for Online Examination System

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# Appendix C: To Be Determined List