System Requirement Specification

1. Introduction

1.1 Purpose

- This Web Application provides facility to conduct online examination world wide.
- It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server.
- Administrator has a privilege to create, modify and delete the test papers and its particular questions.
- User can register, login and give the test with his specific id, and can see the results as well.

1.2 Document Conventions

The following are the list of conventions and acronyms used in this document and the project as well:

- **User:** A general login id assigned to users
- **Client:** Intended users for the software

1.3 Scope

Scope of this project is very broad in terms of other manually taking exams.
Few of them are: -

- This can be used in educational institutions as well as in corporate world.
- Can be used anywhere any time as it is a web-based application (user Location doesn't matter).
- No restriction that examiner has to be present when the candidate takes the test.

2. Overall Description

2.1. Product Perspective

The proposed **Language Skill Exam System** is an on-line Exam System. The online test created for taking online test has following stages

- Test
- Result

Test:

Test page is the most creative and important page in this project. It consists of 2 modules namely:

- Subject selection
- Utilities

Subject Selection: -

From the given choices the candidate can select his field (like C, C++ and JAVA etc) for taking on with the test.

Utilities: -

It includes: -

- Skip and come back to the question afterwards if needed.
- Gives the list of attempted and unattempt questions and can go

to any question directly and can either attempt or change the answer of the already attempted question.

2.2 Product Features

The features available to the Students are:

- Can view the different categories of Test available in their account.
- Can view their marks.
- Can view the various reading material.
- Can view and modify its profile but can modify it to some limited range.

2.4 Operating Environment

The product will be operating in windows environment. Also, it will be compatible with the IE 6.0. Most of the features will be compatible with the Mozilla Firefox & Opera 7.0 or higher version. The only requirement to use this online product would be the internet connection.

2.5 Design and Implementation Constraints

Module: -

This second module track the path for the examinee. The examinee can log into the system with a valid ID issued by the admin. After successfully login into the system the examinee moves to the instruction web page where he will get instruction about the examination process. Then after clicking the start button the exam starts and timer also starts. In this manner examinee can take up the test and clicking the submit button, he will get the result of that section immediately. At the end system displays the initial web page.

2.6 User Documentation

The product will include user manual. The user manual will include product overview, complete configuration of the used software, technical details, backup procedure and contact information which will include email address. The product will be compatible with the Internet Explorer 6.0 or higher.

4.3 FUNCTIONAL REQUIREMENT

Functional requirements for an online quiz application can be categorized into various aspects, including user management, quiz creation, quiz-taking, result management, and administration. Here are some functional requirements that you may consider:

4.3.1 User Management:

➢ Users should be able to create accounts with unique usernames and passwords.

➢ User registration may include additional information, such as email addresses.

➢ Optionally, support for social media login (e.g., Google, Facebook).

4.3.2 User Authentication:

➢ Secure authentication mechanisms to ensure user identity.

➢ Password recovery/reset functionality.

4.3.3 Quiz Creation:

➢ Admins should be able to create and manage quizzes.

➢ Specify quiz title, description, and duration.

➢ Set the number of questions, points per question, and passing criteria.

4.3.4 Quiz Categories:

➢ Group quizzes into categories or topics.

4.3.5 Quiz-Taking:

➢ Intuitive and user-friendly quiz interface.

➢ Support for different devices (desktop, tablet, mobile).

4.3.6 Timer:

➢ Display and manage the quiz timer.

➢ Automatic submission when the timer expires.

4.3.7 Submission:

➢ Users should be able to submit their quizzes once completed.

4.3.8 Detailed Results:

➢ Show a breakdown of scores for each question.

➢ Highlight correct and incorrect answers.

4.3.9 Accessibility:

➢ Ensure that the application is accessible to users with disabilities.

➢ Provide text alternatives for multimedia elements.

These requirements can serve as a starting point for developing a comprehensive online quiz application. Adjustments and additional features may be necessary based on specific project requirements and user needs.

4.3 NON-FUNCTIONAL REQUIREMENT

Non-functional requirements, also known as quality attributes or constraints, define the characteristics and constraints of the system beyond its functionality. These requirements describe how the system should perform, rather than what it should do. Non-functional requirements are often related to performance, reliability, security, usability, and other aspects that contribute to the overall system quality. Examples include response time, system availability, data encryption, user interface design, and regulatory compliance.

➢ **Performance:** The application should have fast and responsive image recognition, with minimal latency or delay in detecting and overlaying digital objects on the image targets. It should also deliver smooth playback of videos or animations without any significant lag.

➢ **User Interface (UI) and User Experience (UX): The** application should have an intuitive and user-friendly interface, with clear instructions or visual cues to guide users in scanning the college brochure and interacting with the augmented reality content. The user experience should be immersive, engaging, and visually appealing.

➢ **Compatibility and Device Support:** The application should be compatible with a wide range of smartphones or devices, supporting both Android and iOS platforms. It should consider various screen sizes, resolutions, and camera capabilities to ensure a consistent experience across different devices.

➢ **Stability and Reliability:** The application should be stable and reliable, capable of handling potential errors or exceptions during image recognition or content playback. It should gracefully handle situations such as low lighting conditions or variations in brochure positioning.

➢ **Security and Privacy:** The application should prioritize user privacy and data security, adhering to relevant privacy regulations. It should obtain necessary permissions for accessing device features, such as camera and storage, and ensure secure transmission and storage of any user-related data.

➢ **Scalability:** The application should have the potential to scale, accommodating future updates, additional content, or expanded functionality. It should be designed in a modular and extensible manner, allowing for easy integration of new image targets or features without significant rework.

In a project report, a flowchart can be used to illustrate the various steps involved in the project. For example, a flowchart could be used to show the steps involved in developing a software application, from requirements gathering to testing and deployment. By using a flowchart, project stakeholders can better understand the project workflow and identify areas where improvements can be made.