# Online Exam Management System

## 1. Introduction

The Online Exam Management System is designed to facilitate the creation, administration, and grading of online exams. The system will support multiple roles, including administrators, instructors, and students. It will ensure a secure, efficient, and user-friendly environment for managing exams.

## 2. Functional requirements

### a. Overall description

The system should provide features that cover the entire exam lifecycle from creation to grading.

### b. Public features

These features are available to all visitors to the site:

* **Home page:** A landing page with information about the system.
* **Available exams:** List of available exams for students (requires login to participate).
* **Contact support:** Page for contacting technical support for any issues.

### c. Common features

* **User login:** Authenticate users to provide access to exams and administrative functions.
* **User registration:** Register new users (students, instructors, admins).
* **Reset password:** Allow users to reset forgotten passwords.
* **Change password:** Enable users to change their login credentials.
* **User profile:** View and edit user information.

### d. Student features

* **Exam dashboard:** View upcoming and completed exams.
* **Take exam:** Interface for students to take exams. Includes navigation between questions, timer display, and submission functionality.
* **View results:** Access exam results and feedback after grading.
* **Exam history:** View history of all exams taken with scores.

### e. Instructor features

* **Create exam:** Interface for instructors to create new exams, including setting time limits and selecting question types (e.g., multiple-choice, essay).
* **Question bank:** Manage a repository of exam questions.
* **Assign exam:** Schedule exams for specific classes or groups.
* **Review submissions:** Review and grade student submissions, particularly for essay-type questions.
* **Manage grades:** Enter and update grades in the system.
* **Student performance analytics:** Generate reports on student performance across exams.

### f. Admin features

* **Exam management:** Oversee all exams created within the system, with options to archive old exams.
* **User management:** Manage all user accounts, including instructors and students.
* **System settings:** Configure system-wide settings, such as password policies and security options.
* **Audit log:** Track and monitor all system activities for security purposes.

## 3. Other requirements

* **Configuring information:** Configurable elements include question categories, grading scales, and user roles.
* **User input data formats:** Ensure proper validation for all input fields, particularly in exam settings and question creation.