# ONLINE EXAM MANAGEMENT SYSETEM

"Efficient and Secure Management of Online Exams"

## Abstract

Online Exam Management System is a web-based application that provides a platform for conducting exams and managing student records. It is built with Angular, Java, and MYSQL, ensuring security, scalability, and efficiency. Our software simplifies the exam process for teachers and students, providing a seamless user experience.

## Introduction

The Online Exam Management Software is designed to provide a platform for managing online exams. The software can be used by educational institutions, training canters, and businesses to create and administer online exams, as well as analyse results, provide grade, assign mark. This documentation will provide a step-by-step guide on how to use the software.

## System Requirements

The Online Exam Management Software can be used on any computer with an internet connection and a web browser. The web browser must be up to date and compatible with the latest web technologies.

If you are interested to buy this software then then you have to need to buy domain and need server for database, API and Front end.

## Technical Information

In this technical documentation, we will provide a detailed overview of the Online Exam Management Software's technical specifications. Our software is a web-based application that comprises a front-end, back-end, and database. The front-end is built using Angular, HTML, CSS, and JavaScript, while the back-end is built with Java, Spring Boot, Thymeleaf, JDBC, JWT, Spring Security, and restful APIs. We use MYSQL as the database for our software.

**Front-End:** Our front-end is built with Angular, HTML, CSS, and JavaScript. Angular is a popular open-source framework used for building web applications. We use HTML and CSS for designing the user interface of our application. JavaScript is used for implementing the application's dynamic features and functionalities, such as validation, real-time data processing, and interactivity. Our front-end is designed to be responsive and accessible, providing a seamless user experience on different devices and screen sizes.

**Back-End:** Our back-end is built with Java, Spring Boot, Thymeleaf, JDBC, JWT, Spring Security, and restful APIs. Java is a widely used programming language, while Spring Boot is a popular open-source framework for building web applications. We use Thymeleaf as the server-side template engine, which enables us to create dynamic web pages with reusable components.

JDBC (Java Database Connectivity) is used for connecting our back-end to the MYSQL database. JWT (JSON Web Token) is used for user authentication and authorization. Spring Security provides a robust security framework for our application, securing our software against various attacks and vulnerabilities. RESTful APIs are used for integrating our application with other third-party services and APIs.

**Database:** We use MYSQL as the database for our Online Exam Management Software. MYSQL is a widely used relational database management system that provides excellent data storage and retrieval capabilities. We use MYSQL for storing user data, exam data, course data, and other relevant information related to our application. We have designed our database schema to be scalable, efficient, and maintainable, ensuring data integrity and consistency.

Our Online Exam Management Software comprises a robust front-end, back-end, and database. We have used various technologies and frameworks such as Angular, HTML, CSS, JavaScript, Java, Spring Boot, Thymeleaf, JDBC, JWT, Spring Security, and RESTful APIs to build a scalable, secure, and efficient web application. Our software is designed to provide a seamless user experience while ensuring data integrity, security, and reliability.

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*System Security:*

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Ensuring software security is essential for protecting sensitive information and providing a secure platform for users. Our software uses a variety of security measures to provide a secure environment for our users.

**JWT Token Authorization:** Our software uses JWT token authorization to authenticate and authorize users. This technology is widely used for securing web applications, and it enables us to securely transmit user information without the need for cookies.

**User Roles:** Our software has three modes: user, admin, teacher, and student. Each mode has different permissions and access levels, which ensures that users can only access the functionality they are authorized to use.

**Backend Development:** Our software's backend is developed using Java Spring Boot and Spring Security. These technologies provide robust security features, such as data encryption, role-based access control, and authentication.

**Password Security:** We implement bcrypt for password security, which is a strong and widely used algorithm for hashing passwords. At present, we have temporarily disabled bcrypt, but when a user buys the software, we enable it. Additionally, we do not transfer passwords in plain text but instead encrypt them during transfer.

**Database Security:** Our software uses MySQL database, which is a widely used and secure relational database management system. We ensure database security by implementing encryption and following best practices for database security.

## Installation

The Online Exam Management Software is a web-based application and does not require any installation. Users can access the software through a web browser by visiting the URL provided by the administrator.

## Registration

Registration is a critical process in our Online Exam Management Software. It enables students and teachers to create their accounts and access the software's features. In this documentation, we will provide a detailed guide on the registration process for both students and teachers.

**Student Registration:**

To use our Online Exam Management Software, students must register for an account. Our registration process is simple and user-friendly, ensuring a smooth experience for our users. The student registration form requires the following information:

- NID number
- Full Name
- Father's name
- Mother's name
- Date of birth
- Contact number
- Email address
- Department
- Semester
- Password

Once students provide all the necessary information and click on the "Register" button, the system will redirect them to the login page. However, before they can access the software, their accounts need approval from the admin.

**Teacher Registration:** Teachers must also register to use our Online Exam Management Software. The teacher registration process is similar to student registration, but it requires additional information. Our registration form for teachers requires the following information:

- NID number
- Full Name
- Father's name
- Mother's name
- Date of birth
- Contact number
- Email address
- Department
- Educational Qualification
- Teacher Expertise
- Password

Once teachers provide all the necessary information and click on the "Register" button, the system will redirect them to the login page. Similar to students, teachers' accounts need approval from the admin before they can access the software.

**Account Approval:** After students and teachers register, their accounts will be in a pending state until the admin approves them. The admin will review the registration information and approve or reject the account. If the admin approves the account, the student or teacher will receive an email confirming the approval, and they can log in to the system.

*Login*

The login process is a crucial aspect of our Online Exam Management Software. It is the primary mechanism that allows authorized users to access the system. Users can

access the login page by clicking on the login button on the homepage. Once on the login page, users must enter their username and password to log in to the system.

Our software uses Spring Security and JWT token authorization to ensure secure and authorized access to the system. User passwords are encrypted using the bcrypt algorithm, ensuring that user data is secure. At present, we transfer passwords from the frontend during login time as plain text, but when a user purchases the software, we will encode the passwords before transferring them.

Upon successful login, users are redirected to their respective dashboard based on their roles (admin, teacher, or student). In case of unsuccessful login attempts, the system displays an error message informing the user of the incorrect username or password.

Overall, our software's login process is designed to be secure, efficient, and user-friendly, providing a seamless user experience for authorized users.

*USER MODE EXPLAINATION*

There Will three user mode available for our Online Exam Management System:

- Admin (he is also a Teacher)
- Teacher
- Student

# USER MODE ADMIN

An Admin get different type of facility to manage the full system (we can farther modify it by buyer recommendation).

- **Dashboard**
- **Teacher List**
    - o **Present Teacher's**
    - o **Pending Teachers**
- **Student List**
    - o **My Students**
    - o **All Students**
    - o **Pending Student**
- 
- **Add department**
- **Change Semester**

- **Course**
  - My Courses
  - All Course List
  - Add course
  - Assign Course
  - Requested Course
- 
- **Question**
  - Make Question
  - My Question List
- 
- **Result**
  - Examine Answer Script
  - Assign Grade
- 
- **Review**


All Option With Explanation of Admin Dashboard:

- **Dashboard:**

  The Dashboard is an essential feature of our Online Exam Management Software. It provides users with a comprehensive overview of their account and the software's features. In this documentation, we will provide a detailed guide on the Dashboard's functionality and the available options for users.

  **Dashboard Features:**

  The Dashboard provides users with various features that enable them to manage their account and access the software's features. The following are the available options on the Dashboard:

  **Total Ready Exam Paper Set by the Teacher:** This feature allows the teacher to view the total number of exam papers they have created and ready for use. The teacher can also manage and edit the exam papers from this section.

  **Total Departments:** This feature displays the total number of departments in the educational institution. It provides users with information on the departments available and helps them to choose the appropriate department for their exam.

  **Total Students:** This feature displays the total number of students in the educational institution. It provides users with information on the number of students in each department and helps them to manage their exams accordingly.

  **Total Teachers:** This feature displays the total number of teachers in the educational institution. It provides users with information on the number of

teachers in each department and helps them to manage their exams accordingly.

Each of these features is displayed on an individual card on the Dashboard, providing a clear and concise overview of the software's features. The Dashboard's user-friendly interface makes it easy for users to navigate and access the available options.

**Future Work:** In the future, we plan to add more features to the Dashboard, enabling users to manage their exams more efficiently. We plan to add features such as exam analysis, student performance tracking, and student feedback. These features will provide teachers and students with valuable insights into their performance and help them improve their exam scores.

- **Teacher List**

The Teacher List accessible from the left menu bar.

The Teacher List is a feature in our software that allows users to view a list of all registered teachers and their information. The Teacher List is accessible from the left menu bar, and users can click on it to view the list of teachers. The list provides the following information:

NID number, Full name, Father's name, Mother's name, Date of birth, Contact number, Email address, Department, Educational Qualification, Teacher Expertise

**Benefits of Teacher List:**

The Teacher List feature provides various benefits to our users. These benefits include:

**Easy Access:** The Teacher List is easily accessible from the left menu bar, allowing users to view the list of teachers with just a few clicks.

**Efficient Management:** The Teacher List provides a comprehensive view of all registered and waiting for approve teachers and their information. This information can help administrators and other users to manage teachers more efficiently.

**Better Decision Making:** The information provided in the Teacher List can help administrators and other users to make informed decisions related to the management of teachers. For example, educational qualifications and expertise can help administrators assign teachers to specific courses or subjects.

**Improved Communication:** The Teacher List provides contact information for all registered teachers, enabling easy and efficient communication between teachers and administrators or other users.

**WE Provide 2 sub option in teacher list option:**

- **Present Teacher.** Here Admin can see all of the present teacher list.
- **Pending Teacher.** Here Admin Can see pending teacher list and admin can take decision by click see more button (on right sight of every teacher info row) then will *get two facility*- either approve the teacher using approve button or delete using delete button.

- **Student List:**
  It enables teachers to access information about their students. The Student List has three sub-options: My students, all students, and Pending students.

  - **My Students:** The My Students sub-option enables teachers to access a list of all students who have registered for their course. When a teacher selects their course, they can view a list of all students registered for that particular course. The list displays the student's name, email address, contact number, department, and semester. This information enables teachers to keep track of their students and monitor their progress. Additionally, teachers can view a student's profile and access their exam results.
  - **All Students:** The All Students sub-option enables teachers to access a list of all students registered for the software. This list displays all student information, including their name, email address, contact number, department, and semester. By accessing the All Students list, teachers can view information about all registered students.
  - **Pending Students:** The Pending Students sub-option enables teachers to view a list of students whose accounts are still pending approval from the admin. This list displays the student's name, email address, contact number, department, and semester. By accessing the Pending Students list, teachers can keep track of students whose accounts are still pending approval and follow up with the admin to ensure a speedy approval process.

    From here the admin can make a decision by clicking the see more button (on right sight of every pending student info row) then will *get two facilities*- either approve the student using the approve button or delete using delete button.

- **Add Department:**
  The Add Department feature in our Online Exam Management Software allows admins to add new departments to the system. This feature is designed to help educational institutions manage different departments effectively. In

this documentation, we will provide a detailed guide on how to add a department to our software.

The admin is the only user who can add new departments to the system. Adding a department is simple and straightforward. To add a new department, the admin needs to follow these steps:

**Step 1:** Log in to the software with the admin credentials.

**Step 2:** Click on the "Add Department" option from the left navigation bar, which will take the admin to the department creation page.

**Step 3:** On the department creation page, the admin will need to enter the following information:
**Department ID:** This is a unique identifier assigned to the department. It helps to differentiate between different departments in the system.
**Department Name:** This is the name of the department that the admin wants to add.

**Step 4:** After entering the required information, the admin can click on the "Add Department" button to save the new department to the system.

**Step 5:** Once the department is added, the admin can view it on the department list page.

**Benefits of Add Department Feature:**

The Add Department feature in our software offers several benefits to educational institutions. These benefits include:

**Efficient Management:** The ability to add new departments to the system allows educational institutions to manage their departments efficiently, improving overall organizational performance.
**Improved Communication:** With the creation of new departments, communication between departments can improve, leading to better collaboration and teamwork.
**Easy Navigation:** By assigning unique identifiers to departments, it becomes easier for users to navigate the system and locate relevant information.
**Better Reporting:** The Add Department feature helps generate reports by department, making it easier for admins to analyse department-specific data.

- **Change Semester**

The change semester feature in our Online Exam Management Software enables the admin to shift to a new semester. He can access it from the left navigation bar. This feature provides several benefits to teachers and students, such as assigning grades and accessing new features. In this documentation, we will provide a detailed guide on how to use the change semester feature.

**Change Semester Process:** The change semester feature is accessible only to the admin, who has to provide their username and password for double security. When the admin clicks on the change semester button, the semester will change.

**Facilities Available after Shifting Semester:** After shifting the semester, several new facilities will open up for teachers and students. Teachers will get the facility to assign grades to their students of the previous semester, which will help students keep track of their progress.

Students will also have access to new features and functionalities, such as new course materials, assignments, and exam schedules. They can access their grades and course progress from the previous semester and plan their studies accordingly.

**<span style="color:red">Disclaimer:</span>**

It's essential to note that once the admin shifts to a new semester, the action is irreversible. This means that the admin cannot rollback to the previous semester, and all data from the previous semester will be archived.

- **Course**

  The course option feature in our Online Exam Management Software allows the admin to manage courses, assign them to teachers and other facilities. In this documentation, we will provide a detailed guide on how to use the course option feature and its sub-options.

  - **My Courses:**
    The "My Courses" sub-option allows teachers to view all the courses they are assigned to. When teachers click on the My Courses sub-option of course from left navigation bar, they will see a list of courses they are currently teaching. This feature helps teachers keep track of their courses and prepare their lectures accordingly.

  - **Course List:**
    The "Course List" sub-option allows the admin to view all the courses of all departments. When the admin clicks on the Course List sub-option of course from the left navigation bar, he will see a list of all courses in the system. The admin can use this feature to check the course details.

  - **Add Course:**
    The "Add Course" sub-option allows the admin to add a course to the system. The admin needs to provide the course code, course name, and

select the department for the course. Once the admin adds the course, it will appear on the Course List, and the admin can assign it to a teacher.

- o **Assign Course:**
  The "Assign Course" sub-option allows the admin to assign a course to a teacher. The admin needs to select the teacher and the course to assign it to. Once the admin assigns the course, it will appear in the teacher's My Courses section.

- o **Requested Course:**
  The "Requested Course" sub-option allows the admin to view a list of student IDs and requested courses. The admin can use this feature to approve or delete a specific course for a specific student. The admin can approve a course by clicking on the approve button, and the course will appear in the Course List. If the admin clicks on the delete button, the course request will be deleted.

- **Question:** The Question Options feature in an online education system allows teachers to create, manage and edit question papers for their exams. It includes two sub-options, as described below:
  - o **Make Question:** The Make Question sub-option allows teachers to create and design question papers for their exams. This feature provides teachers with the flexibility to create different types of questions, including multiple-choice, text-based, and fill-in-the-blank questions. Teachers can also specify the department ID, course code, teacher ID, exam time and date, and the marks allotted for each question, time and date for this exam for the exam.
  - o **My Question List:** The My Question List sub-option allows teachers to view and manage their question papers. This feature provides teachers with the opportunity to review their past question papers, make changes to them, and delete them if necessary. Teachers can use this feature to maintain a comprehensive record of their question papers, along with the marks allotted for each question and the total marks for the exam.

The Question Options feature in an online education system provides teachers with the flexibility to create, manage and edit question papers for their exams. By offering them the opportunity to make questions and manage their question papers, this feature enables teachers to design exam papers that align with their teaching objectives, assess students' understanding of the subject matter, and maintain a comprehensive record of their question papers.

- **Result:** The Result Options feature in an online education system allows teachers to    manage and assign grades to students. It includes two sub-options, as described below:

- o **Examine Answer Script:** The Examine Answer Script sub-option allows teachers to view the answer scripts of individual students. This feature provides teachers with an opportunity to review the answers submitted by students, compare them against the correct answers, and provide feedback on any mistakes or misunderstandings. Teachers can use this feature to evaluate students' understanding of the subject matter and identify areas where they need to improve.
- o **Assign Grade:** The Assign Grade sub-option allows teachers to assign grades to individual students. This feature provides teachers with an opportunity to evaluate the performance of students, based on their exam scores, assignments, and participation in class. Teachers can use this feature to provide students with feedback on their progress and assign grades that reflect their understanding of the subject matter.

The Result Options feature in an online education system provides teachers with a comprehensive approach to evaluating and grading their students. By offering them the opportunity to examine answer scripts and assign grades, this feature enables teachers to gain a better understanding of their students' performance and identify areas where they need to improve.

- **Review:** The Review Option feature in an online education system allows students to request a review of their exam paper. This feature provides students with an opportunity to have their exam paper re-evaluated by a qualified instructor or examiner, who will review their answers and provide feedback on any mistakes or misunderstandings. This can help students to identify errors that may have been overlooked during the initial evaluation and potentially improve their overall grade.

Upon receiving a request for a review, the teacher will recheck the student's exam paper to ensure that all answers have been marked and graded correctly. If any errors or oversights are found, the teacher will adjust the grade accordingly. This feature provides an opportunity for teachers to rectify any grading errors and ensure that students receive accurate grades for their exams.

Overall, the Review Option feature in an online education system provides students with a fair and transparent way to have their exam papers re-evaluated. By allowing students to request a review and teachers to review exam papers, this feature ensures that grades are accurate and that students receive the grades they deserve.

# USER MODE TEACHER

An Admin get different type of facility to manage the full system (we can farther modify it by buyer recommendation).

- **Dashboard**
- **All Teacher**
- **Student List**
    - o **My Students**
    - o **All Students**
- **Course**
    - o **My Courses**
    - o **All Course List**
- 
- **Question**
    - o **Make Question**
    - o **My Question List**
- 
- **Result**
    - o **Examine Answer Script**
    - o **Assign Grade**
- 
- **Review**


All Option With Explanation in Teacher:

- **Dashboard:**

    The Teacher Dashboard is a web-based tool that provides an overview of a teacher's performance and progress in managing exams and subjects. It consists of several cards that display relevant information about exams, departments, subjects, and ratings.


    **Review Exam:** The Review Exam card displays number of review request come from student and their respective results. The card is designed to help teachers monitor their students' progress and assess their teaching effectiveness.


    **Total Department:** The Total Department card shows the total number of departments.


    **Total Exam:** The Total Exam card displays the total number of exams conducted by the teacher.

**Future Work:** In the future, we plan to add more features to the Dashboard, enabling users to manage their exams more efficiently. We plan to add features such as exam analysis, student performance tracking, and student feedback. These features will provide teachers and students with valuable insights into their performance and help them improve their exam scores.

- **All Teacher**

  The Teacher List is a feature in our software that allows users to view a list of all registered teachers and their information. The Teacher List is accessible from the left menu bar, and users can click on it to view the list of teachers. The list provides the following information:

  NID number, Full name, Father's name, Mother's name, Date of birth, Contact number, Email address, Department, Educational Qualification, Teacher Expertise

  **Benefits of Teacher List:**

  The Teacher List feature provides various benefits to our users. These benefits include:

  **Easy Access:** The Teacher List is easily accessible from the left menu bar, allowing users to view the list of teachers with just a few clicks.

  **Efficient Management:** The Teacher List provides a comprehensive view of all registered and waiting for approve teachers and their information. This information can help administrators and other users to manage teachers more efficiently.

  **Improved Communication:** The Teacher List provides contact information for all registered teachers, enabling easy and efficient communication between teachers and student or other users.

- **Student List:**
  The Student List is an interesting feature of our Online Exam Management Software. It enables teachers to access information about their students and manage their courses effectively. This is accessible from the left menu bar. The Student List has three sub-options: My students, all students, and Pending students.

  - **My Students:** The My Students sub-option enables teachers to access a list of all students who have registered for their course. When a teacher selects their course, they can view a list of all students registered for that particular course. The list displays the student's name, email address, contact number, department, and semester. This information

enables teachers to keep track of their students and monitor their progress. Additionally, teachers can view a student's profile and access their exam results.

- o **All Students:** The All Students sub-option enables teachers to access a list of all students registered for the software. This list displays all student information, including their name, email address, contact number, department, and semester. By accessing the All Students list, teachers can view information about all registered students.

- **Course**

  The course option feature in our Online Exam Management Software allows the Teacher to manage courses, assign them to teachers and other facilities.

  - o **My Courses:**
    The "My Courses" sub-option allows teachers to view all the courses they are assigned to. When teachers click on the My Courses sub-option of course from left navigation bar, they will see a list of courses they are currently teaching. This feature helps teachers keep track of their courses and prepare their lectures accordingly.

  - o **All Course List:**
    The "All Course List" sub-option allows the Teacher to view all the courses of all departments. When the Teacher clicks on the Course List sub-option of course from the left navigation bar, he will see a list of all courses in the system. The Teacher can use this feature to check the course details.

- **Question:** The Question Options feature in an online education system allows teachers to create, manage and edit question papers for their exams. It includes two sub-options, as described below:
  - o **Make Question:** The Make Question sub-option allows teachers to create and design question papers for their exams. This feature provides teachers with the flexibility to create different types of questions, including multiple-choice, text-based, and fill-in-the-blank questions. Teachers can also specify the department ID, course code, teacher ID, exam time and date, and the marks allotted for each question, time and date for this exam for the exam.
  - o **My Question List:** The My Question List sub-option allows teachers to view and manage their question papers. This feature provides teachers with the opportunity to review their past question papers, make

changes to them, and delete them if necessary. Teachers can use this feature to maintain a comprehensive record of their question papers, along with the marks allotted for each question and the total marks for the exam.

The Question Options feature in an online education system provides teachers with the flexibility to create, manage and edit question papers for their exams. By offering them the opportunity to make questions and manage their question papers, this feature enables teachers to design exam papers that align with their teaching objectives, assess students' understanding of the subject matter, and maintain a comprehensive record of their question papers.

- **Result:** The Result Options feature in an online education system allows teachers to    manage and assign grades to students. It includes two sub-options, as described below:
    - ○ **Examine Answer Script:** The Examine Answer Script sub-option allows teachers to view the answer scripts of individual students. This feature provides teachers with an opportunity to review the answers submitted by students, compare them against the correct answers, and provide feedback on any mistakes or misunderstandings. Teachers can use this feature to evaluate students' understanding of the subject matter and identify areas where they need to improve.
    - ○ **Assign Grade:** The Assign Grade sub-option allows teachers to assign grades to individual students. This feature provides teachers with an opportunity to evaluate the performance of students, based on their exam scores, assignments, and participation in class. Teachers can use this feature to provide students with feedback on their progress and assign grades that reflect their understanding of the subject matter.

The Result Options feature in an online education system provides teachers with a comprehensive approach to evaluating and grading their students. By offering them the opportunity to examine answer scripts and assign grades, this feature enables teachers to gain a better understanding of their students' performance and identify areas where they need to improve.

- **Review:**  The Review Option feature in an online education system allows students to request a review of their exam paper. This feature provides students with an opportunity to have their exam paper re-evaluated by a qualified instructor or examiner, who will review their answers and provide feedback on any mistakes or misunderstandings. This can help students to identify errors that may have been overlooked during the initial evaluation and potentially improve their overall grade.

Upon receiving a request for a review, the teacher will recheck the student's exam paper to ensure that all answers have been marked and graded correctly. If any errors or oversights are found, the teacher will adjust the grade accordingly. This feature provides an opportunity for teachers to rectify any

grading errors and ensure that students receive accurate grades for their exams.

Overall, the Review Option feature in an online education system provides students with a fair and transparent way to have their exam papers re-evaluated. By allowing students to request a review and teachers to review exam papers, this feature ensures that grades are accurate and that students receive the grades they deserve.

# USER MODE STUDENT

A student get different type of facility to manage the full system (we can further modify it by buyer recommendation).

All Option in student:

- **Dashboard**
- **Courses**
    - **Present Courses**
    - **Departmental Courses**
    - **Completed Courses**
    - **Request For Course**
- **Exam**
    - **Upcoming Exam**
    - **Previous Exam**
- **Exam Hall**
- **Review**
    - **Re-examining Script**
    - **Request Ans-Script**

- **Dashboard**
- **Courses**
    - **Present Courses**
    - **Departmental Courses**
    - **Completed Courses**
    - **Request For Course**
- **Exam**
    - **Upcoming Exam**
    - **Previous Exam**

- **Exam Hall**
- **Review**
  - **Re-examining Script**
  - **Request Ans-Script**

Explanation of all option in student:

- **Dashboard**

  **Student Dashboard:** The Student Dashboard is a web-based tool that provides an overview of a student's progress and performance in an online exam management system. It consists of several cards that display relevant information about courses, reviews, exams, and schedules.

  **Complete Course:** The Complete Course card displays all the courses that the student has completed. It includes information such as the course name, date of completion, and the overall score. This card helps students keep track of their progress and accomplishments in the course.

  **Pending Review:** The Pending Review card displays all the reviews that are pending for the student. It includes information such as the review date, the reviewer name, and the course name. This card helps students prioritize their review tasks and ensures that they submit their reviews in a timely manner.
  **Present Courses:** The Present Courses card displays all the courses that the student is currently enrolled in. It includes information such as the course name, the instructor name, and the progress status. This card helps students keep track of their current courses and stay on top of their coursework.

  **Upcoming Exam**: The Upcoming Exam card displays all the exams that are scheduled for the student in the near future. It includes information such as the exam date, the course name, and the exam duration. This card helps students plan their study schedules and prepare for their exams in advance.

  Overall, the Student Dashboard provides students with a comprehensive view of their progress and performance in an online exam management system. It enables them to stay organized, prioritize their tasks, and stay on track with their coursework.

- **Courses**

  The Course Options feature in an online education system is a powerful tool that helps students manage their courses effectively. It offers several sub-options that provide different services to students, including:

  - **Present Courses**

The Present courses sub-option enables students to view the courses they are currently enrolled in. It provides them with information such as the course name, the instructor name, and the course progress status. This feature helps students stay organized and focused on their current coursework.

- o **Departmental Courses**
  The Departmental Courses sub-option allows students to explore courses that are part of their department's curriculum. With this feature, students can view course descriptions, schedules, and instructor names. They can enrol in courses that align with their academic and career goals and stay on track with their departmental requirements. This sub-option is an excellent resource for students who want to enhance their academic knowledge and skills.

- o **Completed Courses**
  The Completed Courses sub-option provides students with an easy way to keep track of their academic progress and accomplishments. It provides them with an overview of the courses they have completed, the date of completion, and the grade received. This feature helps students maintain an accurate record of their academic performance, which they can use to build their resumes or apply for further studies.

- o **Request For Course**
  The Request for Course sub-option allows students to request courses that are not currently offered in their department's curriculum. This feature provides students with the flexibility to customize their learning experience and enrol in courses that align with their career goals. By filling out a form with all the relevant details of the course, such as course name, instructor name, description, and proposed schedule, students can request new courses that will help them achieve their academic and career aspirations.

Overall, the Course Options feature in an online education system offers students a range of tools that can help them succeed academically. By providing them with an efficient and comprehensive approach to managing their courses, this feature enables students to stay organized, focused, and on track with their academic and career goals.

- **Exam**
- 

The Exam feature in an online education system provides students with a way to manage their exams efficiently. It includes two sub-options that provide different services to students, as described below:

- o **Upcoming Exam**
  The Upcoming Exam sub-option enables students to view their upcoming exams. This feature provides them with essential information such as the date, time, and location of the exam. By using this feature,

students can stay organized and prepared for their upcoming exams. They can also use this feature to plan their study schedule and allocate their time accordingly.

- o **Previous Exam**
  The Previous Exam sub-option allows students to view their exam history. It provides them with an overview of the exams they have completed, the date of completion, and the grade received. This feature helps students maintain an accurate record of their academic performance, which they can use to improve their future exam performance.

Overall, the Exam Options feature in an online education system offers students a comprehensive approach to managing their exams. By providing them with essential information about their upcoming exams and an overview of their exam history, this feature enables students to stay organized, focused, and prepared for their academic assessments.

- **Exam Hall**
  The Exam Hall is an essential feature of an online education system that provides students with a secure and convenient way to take their exams. It includes several features that enable students to take their exams in a controlled environment and help them stay organized and focused. Some of the key features of the Exam Hall are:

**Upcoming Exam Time and Date:** The Exam Hall displays the time and date of the student's upcoming exam. This feature helps students stay organized and plan their schedule accordingly. Students can also use this information to ensure they arrive at the exam hall on time and are prepared to take their exam.

**Time Countdown:** Here student can see how many time remaining to start exam.

**Demo Question-Answer Script:** Here student can see demo answer script. How he have to answer.

**Exam Security Measures** (if organization need we add it in future): The Exam Hall includes several security measures to ensure a fair and secure exam environment. These measures may include monitoring the student's computer screen, restricting access to external websites, and recording the student's activity during the exam. These security measures help prevent cheating and ensure that all students have an equal opportunity to succeed.

Overall, the Exam Hall is a crucial feature of an online education system that provides students with a secure and convenient way to take their exams. By providing essential information, instructions, and security measures, the Exam

Hall helps students stay organized, focused, and confident during their exam experience.

- **Review**
  The Review Options feature in an online education system allows students to Request for review and re-examine their exams. It includes two sub-options that provide different services to students, as described below:

  - **Re-examining Script**
    The Re-examining Script sub-option allows students to request a review of their exam script. This feature provides students with an opportunity to have their exam reviewed by a qualified instructor or examiner, who will re-evaluate their answers and provide feedback on any mistakes or misunderstandings. Students can use this feature to gain a better understanding of their exam performance and to identify areas where they need to improve.

  - **Request Ans-Script**

    The Request Ans-Script sub-option allows students to request a copy of their exam answer script. This feature provides students with a record of their exam answers, which they can use to review their performance and identify any mistakes or areas for improvement. Students can also use this feature to gain a better understanding of the exam format and structure, which can help them prepare for future exams.

Overall, the Review Options feature in an online education system provides students with a comprehensive approach to reviewing and re-examining their exams. By offering them the opportunity to have their exams reviewed and to access their exam answer script, this feature enables students to gain a better understanding of their exam performance and identify areas where they need to improve.

*Conclusion*

The Online Exam Management Software is a powerful tool for managing online exams. With its user-friendly interface and powerful features, the software makes it

easy to create, administer, and analyse online exams. This documentation provides a comprehensive guide on how to use the software, ensuring a positive experience for users.