

Exam Management System

User Manual

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Introduction

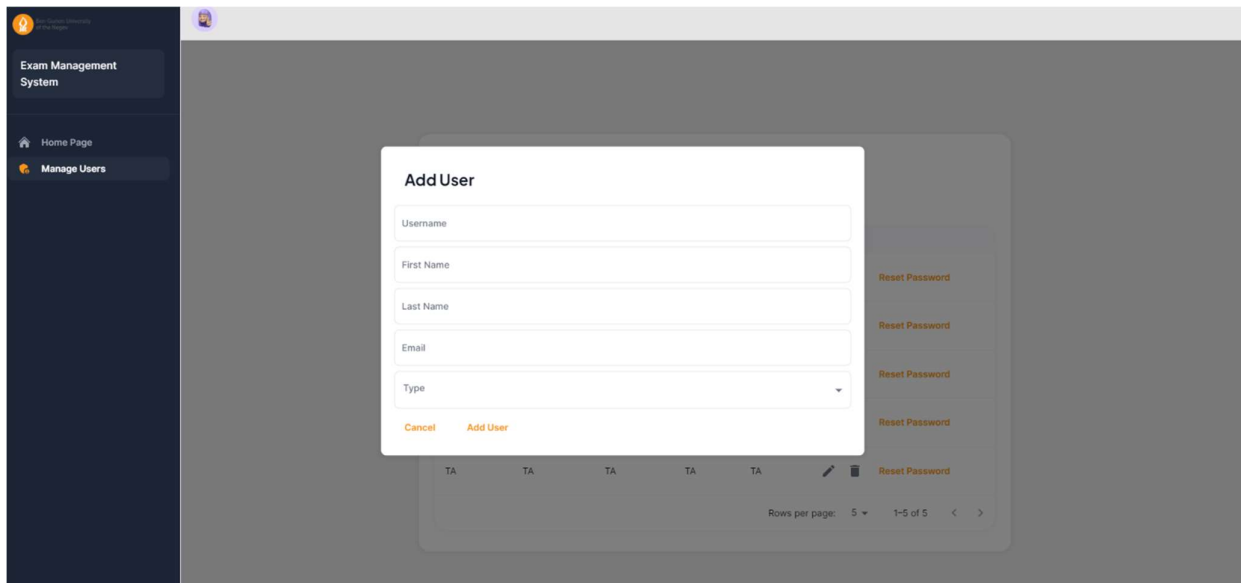
The Exam Management System (EMS) is designed to streamline the process of creating, managing, and generating exams. It offers a range of functionalities to help administrators, lecturers, and TAs manage their tasks efficiently. This manual serves as both a training guide and a reference document, providing detailed instructions on how to use the EMS to accomplish various tasks.

Training

Use Cases

1. Add User

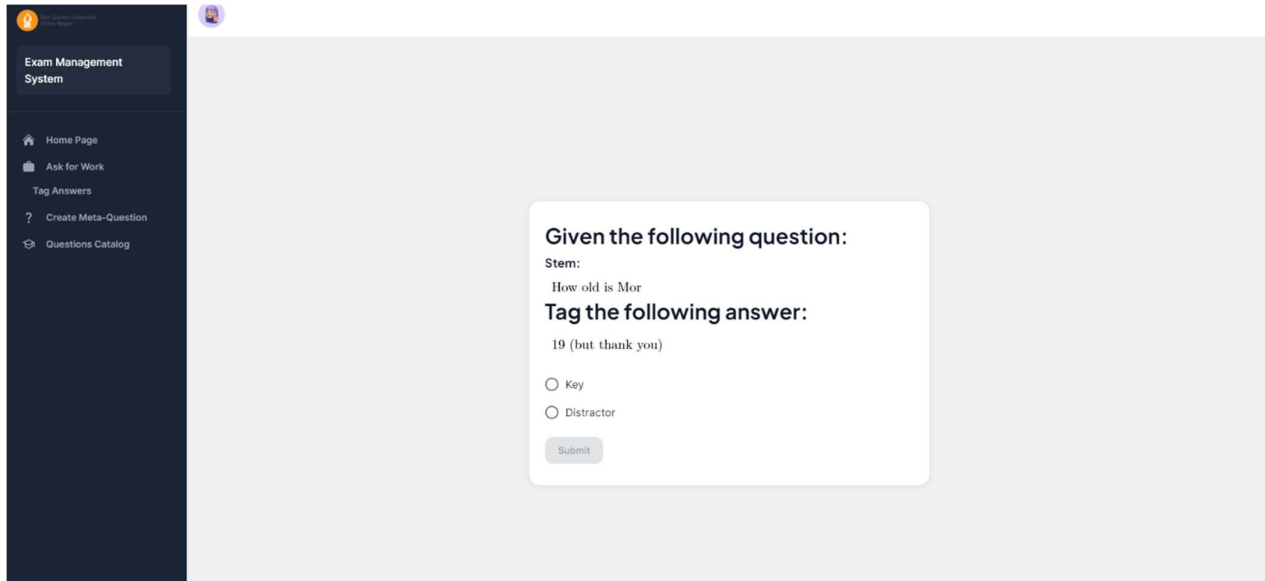
- **Description:** Allows administrators to add new users to the system.
- **Actor:** Administrator
- **Preconditions:** The user must be logged in as an administrator.
- **Basic Flow:**
 1. The administrator accesses the course management section of the system.
 2. The administrator views a list of existing users.
 3. The administrator adds a new user to the course.
- **Alternate Flows:**
 - If the administrator tries to add a user with an already existing username, a proper error message should be shown.



The screenshot displays the 'Add User' form within the 'Exam Management System'. The form is a modal dialog with the following fields: Username, First Name, Last Name, Email, and Type (a dropdown menu). At the bottom of the form are 'Cancel' and 'Add User' buttons. The background shows a table of users with 'TA' entries and a 'Reset Password' button. The table has a header row with 'TA' and a footer row with 'Rows per page: 5' and '1-5 of 5'.

2. Creating a Task

- **Description:** Enables users to review questions and create tasks.
- **Actor:** Lecturer, TA
- **Preconditions:** The user must be logged in with appropriate permissions.
- **Basic Flow:**
 1. The TA accesses the review questions section.
 2. The TA submits a different answer for the question that he got.
 3. The system creates a review question task.
- **Alternate Flows:**
 - If the TA does not make changes to the question, then a task is not created.



The screenshot displays the 'Exam Management System' interface. On the left is a dark sidebar with navigation links: Home Page, Ask for Work, Tag Answers, Create Meta-Question, and Questions Catalog. The main content area is light gray and contains a white form box. The form has the following text: 'Given the following question:', 'Stem:', 'How old is Mor', 'Tag the following answer:', '19 (but thank you)', two radio buttons labeled 'Key' and 'Distractor', and a 'Submit' button.

3. Manage Questions

- **Description:** Allows users to manage questions within the system.
- **Actor:** Lecturer, TA
- **Preconditions:** The user must be logged in as a Lecturer or TA.
- **Basic Flow:**
 1. The user accesses the questions management section of a course.
 2. The user creates new content such as questions, stems, meta-questions, and appendices organized by subjects and keywords.
 3. The user edits, deletes, or validates existing content as needed.
- **Alternate Flows:**
 - Other users on the course need to review and provide feedback on proposed content changes before finalizing them.

Exam Management System

- Home Page
- Ask for Work
- Tag Answers
- Create Meta-Question
- Questions Catalog
- Meta Questions
- Appendices

Meta-Questions Catalog

[+ Create Simple MetaQuestion](#)
[+ Create Appendix+MetaQuestion](#)

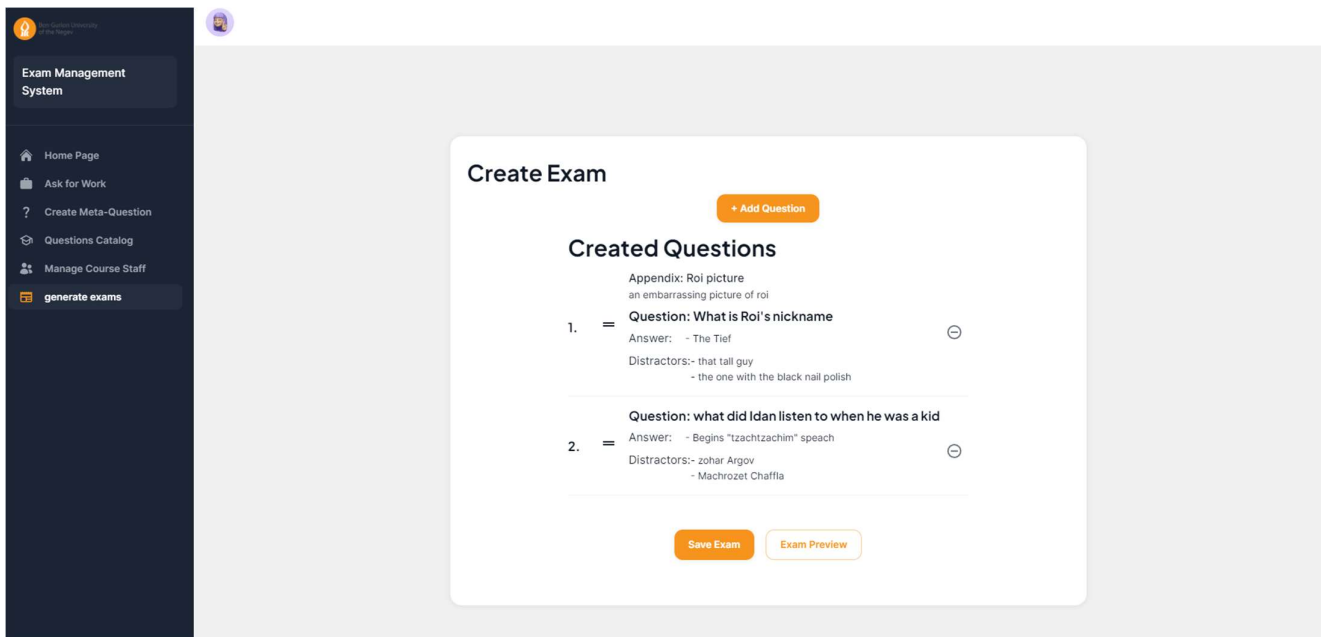
Stem

STEM	KEYWORDS			
How old is Mor	key1, key2, key5	View PDF	✎	🗑
where does Ofek live	key1, key2, key3	View PDF	✎	🗑
what is Mor's last name	key1, key2, key5	View PDF	✎	🗑
$Se^*(f(p)) + 1 = S$	key1, key2, key3	View PDF	✎	🗑
what did idan listen to when he was a kid	key1, key2, key3	View PDF	✎	🗑

Rows per page: 5 1-5 of 6 < >

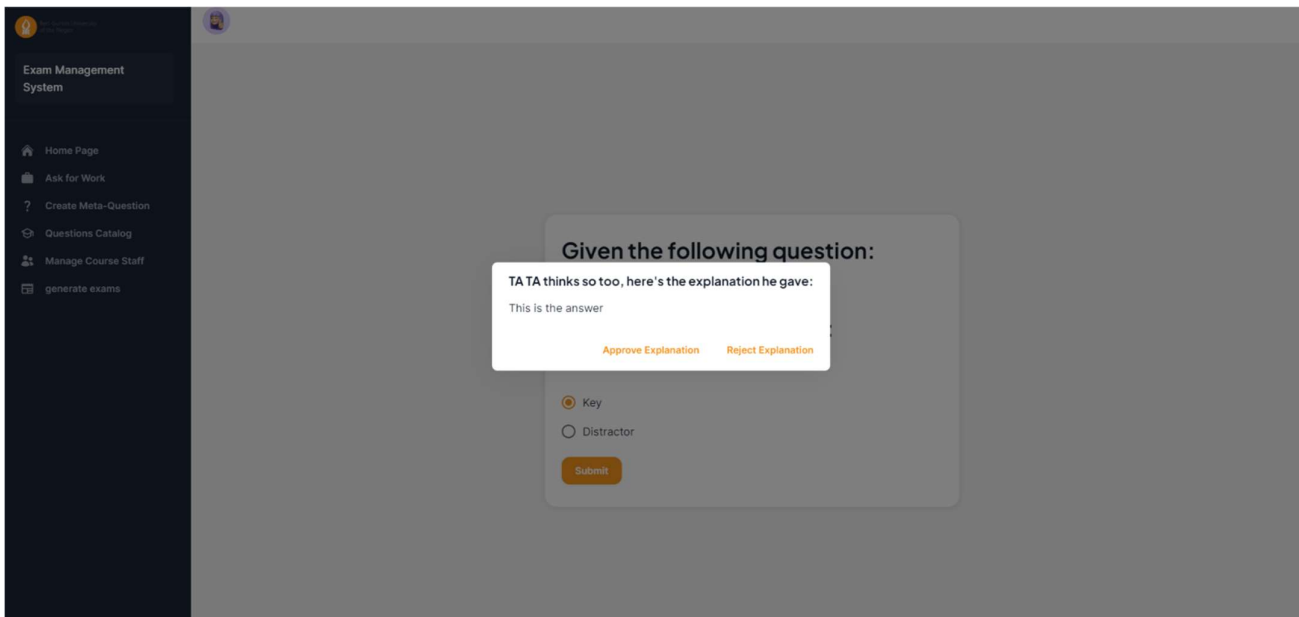
4. Generate Exams

- **Description:** Allows users to generate exams based on the available content.
- **Actor:** Lecturer
- **Preconditions:** The user must be logged in as a Lecturer, and the course must have defined exam properties such as subjects, number of questions, and grading system.
- **Basic Flow:**
 1. The user accesses the exam creation section of the system.
 2. The user selects to create an exam and provides necessary details.
 3. The system generates the exam using LaTeX-based templates and exports it to a PDF file.
- **Alternate Flows:**
 - If the user wants to preview the exam before finalizing it, he can review it and make adjustments as needed.



5. Finishing a Task

- **Description:** Allows users to finish a task that is assigned to them.
- **Actor:** Lecturer
- **Preconditions:** The user must be logged in.
- **Basic Flow:**
 1. The user accesses the tasks section of the system.
 2. The user selects a task to view.
 3. The user answers the task and submits his answer.
- **Alternate Flows:**
 - If the user does not accept the task changes, then no change is made to the database and the task is finished.



Reference

User Facing Functions

1. Add Appendix

- **Functionality:** Allows users to add new appendices to the system.
- **Example:** The user navigates to the 'Add Appendix' section, enters the details of the new appendix, and submits the form. The system adds the appendix to the database.

2. Add Lecturer

- **Functionality:** Allows administrators to add new lecturers to the system.
- **Example:** The administrator navigates to the 'Add Lecturer' section, enters the details of the new lecturer, and submits the form. The system adds the lecturer to the database and sends a confirmation email.

3. Add Meta-Question

- **Functionality:** Allows users to add new meta-questions to the system.
- **Example:** The user navigates to the 'Add Meta Question' section, enters the details of the new meta-question, and submits the form. The system adds the meta-question to the database.

4. Add TA

- **Functionality:** Allows administrators to add new TAs to the system.
- **Example:** The administrator navigates to the 'Add TA' section, enters the details of the new TA, and submits the form. The system adds the TA to the database and sends a confirmation email.

5. Change Password

- **Functionality:** Allows users to change their password.
- **Example:** The user navigates to the login section, enters their current password, and sets a new password. The system updates the user's password.

6. Complete Task

- **Functionality:** Marks a user-created task as complete.
- **Example:** The user views a created task, completes the required actions, and clicks Submit'. The system updates the task status to 'Completed'.

7. Create Exam

- **Functionality:** Allows users to create a new exam.
- **Example:** The user navigates to the 'Create Exam' section, enters the exam details, selects questions, and clicks 'Create Exam'. The system generates the exam and makes it available for students.

8. Delete Appendix

- **Functionality:** Allows users to delete an appendix from the system.
- **Example:** The user selects an appendix from the appendix list, clicks 'Delete Appendix', and confirms the action. The system removes the appendix from the database.

9. Delete Question

- **Functionality:** Allows users to delete a question from the system.
- **Example:** The user selects a question from the question list, clicks 'Delete Question', and confirms the action. The system removes the question from the database.

10. Delete User

- **Functionality:** Allows administrators to delete a user.
- **Example:** The administrator selects a user from the user list, clicks 'Delete User', and confirms the action. The system removes the user from the database.

11. Edit Appendix

- **Functionality:** Allows users to edit existing appendices.
- **Example:** The user selects an appendix from the list, navigates to 'Edit Appendix', updates the details, and clicks 'Save'. The system updates the appendix in the database.

12. Edit Meta-Question

- **Functionality:** Allows users to edit existing meta-questions.
- **Example:** The user selects a meta-question from the list, navigates to 'Edit Meta Question', updates the details, and clicks 'Save'. The system updates the meta-question in the database.

13. Edit User

- **Functionality:** Allows administrators to edit user details.
- **Example:** The administrator selects a user from the user list, navigates to 'Edit User', updates the user's details, and clicks 'Save'. The system updates the user's information in the database.

14. Generate Task

- **Functionality:** Generates a new task for the user.
- **Example:** The user navigates to the 'Tag Answers' section. The system creates a new 'Tag Answers' task for the user.

15. Get All Appendices

- **Functionality:** Retrieves a list of all appendices.
- **Example:** The user clicks on 'View All Appendices' in the questions management section. The system fetches and displays a list of all appendices.

16. Get All Exams

- **Functionality:** Retrieves a list of all exams.
- **Example:** The user clicks on 'View All Exams' in the exams management section. The system fetches and displays a list of all exams, including their status and assigned users.

17. Get All Meta-Questions

- **Functionality:** Retrieves a list of all meta-questions.
- **Example:** The user clicks on 'View All Meta Questions' in the questions management section. The system fetches and displays a list of all meta-questions.

18. Get All Staff

- **Functionality:** Retrieves a list of all staff members.
- **Example:** The user clicks on 'View All Staff' in the user management section. The system fetches and displays a list of all staff members.

19. Get All Users

- **Functionality:** Retrieves a list of all users.
- **Example:** The administrator clicks on 'View All Users' in the user management section. The system fetches and displays a list of all users.

20. Get Meta-Questions for Appendix

- **Functionality:** Retrieves meta-questions associated with a specific appendix.
- **Example:** The user selects an appendix and clicks on 'View Meta Questions'. The system displays all meta-questions associated with the appendix.

21. Get Meta-Questions for Exam

- **Functionality:** Retrieves meta-questions associated with a specific exam.
- **Example:** The user selects an exam and clicks on 'View Meta Questions'. The system displays all meta-questions associated with the exam.

22. Remove Question from Exam

- **Functionality:** Allows users to remove questions from an exam.
- **Example:** The user selects an exam, navigates to the question list, selects a question, and clicks 'Remove'. The system removes the question from the exam.

23. Reset Password

- **Functionality:** Allows users to reset their password.
- **Example:** The user navigates to the 'user menu' section and clicks 'Reset Password'.

24. Sign In

- **Functionality:** Allows users to sign in to the system.
- **Example:** The user navigates to the login page, enters their credentials, and clicks 'Sign In'. The system authenticates the user and grants access to the system.

25. Sign Out

- **Functionality:** Allows users to sign out of the system.
- **Example:** The user clicks on 'Sign Out'. The system logs the user out and redirects them to the login page.

26. View Questions

- **Functionality:** Allows users to view all questions in the system.
- **Example:** The user navigates to the 'View Questions' section. The system displays a list of all questions, organized by subject and keyword.

27. View Tasks

- **Functionality:** Allows users to view their tasks.
- **Example:** The user navigates to the dashboard. The system displays a list of tasks assigned to the user.

Limitations

The current version of the Exam Management System has the following limitations:

- The system does not support offline functionality.
- Real-time collaboration on exam creation is not supported.
- Limited customization options for exam templates.

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- **A:** Add Appendix, Add Lecturer, Add Meta-Question, Add TA
- **C:** Change Password, Complete Task, Create Exam
- **D:** Delete Appendix, Delete Question, Delete User
- **E:** Edit Appendix, Edit Meta-Question, Edit User
- **G:** Generate Task, Get All Appendices, Get All Exams, Get All Meta-Questions, Get All Staff, Get All Users, Get Meta-Questions for Appendix, Get Meta-Questions for Exam
- **R:** Remove Question from Exam, Reset Password
- **S:** Sign In, Sign Out
- **V:** View Questions, View Tasks