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**Group 11**  
**Use Case & Tech Stack Report - D1**  
**Section 1 - Eray Tüzün**  
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# Tech Stack

This section explains the technologies used in our project, which consists of two main parts: Backend and Frontend.

## Backend

The backend will be developed using Python. We will also use Django as the chosen framework since Django simplifies web application development by handling database interactions, authentication, and API creation. It follows the MTV (Model-Template-View) pattern and this will help in keeping the structure organized for the TA Management System.

For data storage, we will use MySQL, a relational database system that will maintain records related to TA assignments, proctoring schedules, course details, and system logs.

To enable communication between the frontend and backend, we will implement RESTful APIs and this will allow data exchange through HTTP requests. These APIs will be documented and tested using Swagger and Postman.

## Frontend

The frontend will be built using JavaScript, with the React library. React enables the development of dynamic and interactive interfaces through reusable components which are compatible with our project.

The UI will be designed using HTML and CSS, in order to obtain a clean and structured layout. Styling will be done with CSS to maintain a visually appealing and user-friendly experience.

The frontend will interact with the backend through API requests, allowing users to access their relevant data. The system will have different views for TAs, faculty, department staff, and administrators, ensuring that each user only sees the functionalities they need.

# Use Cases

## Actor Explanations

### TA

TA stands for the Teaching Assistants who are hired to assist teachers with various academic activities. TAs are required to log in to see their workload, mark their completed work, and look at duties assigned. They are able to look at the information they are authorized to view and choose an action from the home page like other actors. TAs can input duty logs for instructor signatures, apply for leave of absence, and be assigned proctoring duties. They can also trade proctoring duties with other TAs if needed. TAs are to update their workload in the system and maintain fairness in duty distribution.

### Instructor

Instructor actor describes the instructors of the system as they have to log in the system to the instructor page. They can view information and they can choose an action on the main page. Their most critical role in the system is that they can manipulate the duties that will be assigned to the TAs after creation. Duties can be created by the instructor, canceled or assigned. In addition, instructors can also evaluate the duty logs that are submitted by the TAs by either accepting or rejecting the logs. Finally instructors also can evaluate the leave of absence request by the TAs.

### Admin

Admin describes the user that administers the system. Admins have to log in the system to administer the system. Admins can see the information they are allowed to see in the home page and they can choose an action they are allowed to do. Admins have permission to create new users, delete users and edit the existing users. They can also monitor the logs so that if any issue appears in the system, they can recognise the issue and solve it. Admins also can export the classroom student distribution just in case other actors couldn't.

### Dean

The Dean is a high level administrator and is responsible for checking multiple departments of the faculty. In the TA Management System, the Dean has access to department wide and faculty wide data. The Dean can review workload reports, check TA assignments across departments for common exams, and make decisions regarding resource allocation. He can also create, assign, and cancel TA duties. Additionally, the Dean has permission to export classroom student distribution and evaluates leave of absence requests. The Dean collaborates with the Department Chair and Secretary to manage TA assignments and overall faculty workload effectively.

## Department Chair

Department Chair describes the department chair for each department. The Department Chair has to log in the system so that they have access to the system. They can view the information they are allowed to see and choose an action from the main page just like every other actor. They can also export the classroom student distribution for the exams.

## Secretary

The Secretary (Authorized Staff) in the TA Management System is responsible for managing TA assignments, proctoring duties, and leave requests while ensuring fair workload distribution. They handle manual and automatic TA duty assignments, approve or reject TA leave requests, and oversee exam proctoring organization by defining exam details and assigning proctors. Additionally, they manage system data imports, generate student distribution lists for exams, and track TA workload logs and reports. The Secretary plays a key administrative role, collaborating with course instructors and the Dean's Office to maintain an efficient and organized TA management system.

## Use Case Narratives

### Main Page

**Use case name:** Login

**Actors:** TA, Instructor, Secretary, Department Chair, Admin, Dean

**Description:** Users authenticate themselves to access the system.

**Preconditions:**

- The user must have a registered account.
- The system must be online, connected to the database and run properly.

**Basic Flow:**

- User navigates to the login page.
- User enters their credentials (username/email and password).
- System verifies the credentials.
- If credentials are valid, the user is granted access to the system.
- User is redirected to the main dashboard, according to his/her role.

**Postconditions:**

- User is authenticated and logged into the system properly.

**Exception Flow:**

- If credentials are incorrect, an error message is displayed, and user is prompted to retry.
- If user forgets the password, they can request a password reset via email verification.
- After the email verification code is sent, the user must enter the verification code and his/her password twice to proceed properly.
- If login fails due to system errors, the user is advised to contact the admin.

**Use case name:** View Information

**Actors:** TA, Instructor, Secretary, Department Chair, Admin, Dean

**Description:** User views their profile information and system-related details.

**Preconditions:**

- User must be logged properly into the system.

**Basic Flow:**

- User selects the profile option from the main menu.
- System retrieves the user's information from the database.
- System displays the user's profile details, related information and if so upcoming events etc.

**Postconditions:**

- User's profile details and relevant information is displayed successfully.

**Exception Flow:**

- If there is no upcoming event, the relevant part can be empty.
- If the information cannot be retrieved due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.

**Use case name:** Choose Action

**Actors:** TA, Instructor, Secretary, Department Chair, Admin, Dean

**Description:** User selects an action to navigate within the system.

**Preconditions:**

- The user must be logged properly into the system.

**Basic Flow:**

- User is presented with a list of available actions according to their role in the system.
- User selects an action from allowed actions.
- The system redirects the user to the selected module.

**Postconditions:**

- User is successfully navigated to the chosen module.

**Exception Flow:**

- If the navigation to the module fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.
- If the user tries to go to a module that is not allowed, an information pop-up occurs.

**Use case name:** See Manage Term Info

**Actors:** Admin, Department Chair, Dean

**Description:** User views and manages term-related information.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "See Manage Term Info" from the menu to navigate this module.
- The system displays the retrieved term-related data.

**Postconditions:**

- Relevant information is displayed successfully.

**Exception Flow:**

- If the displaying relevant data fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.

**Use case name:** See Manage Users

**Actors:** Admin

**Description:** Admin sees and manages system users.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "Manage Users" from the menu to navigate this module.
- The system displays the user list and management options.
- The admin can perform an action related to user management. (create, edit, delete a user etc.).

**Postconditions:**

- Relevant information is displayed successfully.
- The user list is updated based on the performed action.

**Exception Flow:**

- If the displaying relevant data fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.
- If an error occurs while managing users, the system displays an appropriate message.

**Use case name:** See Notifications

**Actors:** TA, Instructor, Secretary, Department Chair, Admin, Dean

**Description:** User views system notifications.



**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "See Notifications" from the menu to navigate this module.
- The system retrieves and displays the latest notifications.

**Postconditions:**

- User successfully views his/her notifications.

**Exception Flow:**

- If the displaying relevant data fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.

**Use case name:** See Manage Leave of Absence

**Actors:** TA, Department Chair, Admin

**Description:** User views and manages leave of absence requests.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "See Manage Leave of Absence" from the menu to navigate this module.
- The system retrieves and displays leave requests.
- User can view, approve, or reject leave requests. (due to their roles)

**Postconditions:**

- Leave requests are successfully reviewed or updated.

**Exception Flow:**

- If the displaying relevant data fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.
- If an error occurs while managing leave of absences (view, approve, or reject etc.), the system displays an appropriate message.

**Use case name:** See Manage Duties

**Actors:** TA, Instructor, Department Chair

**Description:** User views and manages TA duties.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "See Manage Duties" from the menu to navigate this module.
- The system retrieves and displays duty assignments.
- User can view, assign, or modify duties. (due to their roles)

**Postconditions:**

- Duties and relevant information are successfully reviewed or updated.

**Exception Flow:**

- If the displaying relevant data fails due to a system error, an error message is displayed.
- In that case, the user is asked to refresh the page or try again later.
- If an update fails, the system notifies the user.

## Duty Management

**Use case name:** Create Duty

**Actors:** Instructor

**Description:** User creates duties specifying what type and time slot.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

**Basic Flow:**

- User selects "Create Duty" from the menu to navigate to this module.
- The system projects a selection to the user about the type of the duty.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use case name:** Create Course Assistance Duty

**Actors:** Instructor

**Description:** One of the selections from duty creation. Four different types will be selected afterwards.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.
- User should select "Create Duty" from the menu.

**Basic Flow:**

- User selects "Create Course Assistance Duty" after choosing to create a duty.
- There are four types of course assistance duty for the user selection.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use case name:** Create Course Assistance Duty - Lab Work

**Actors:** Instructor

**Description:** Subsection of course assistance duty. This duty is about being the respective TA of the assigned lab.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.
- User should select "Create Course Assistance Duty" from the menu.

**Basic Flow:**

- User selects "Lab Work" after choosing to create a course assistance duty.
- After the selection, the time slot and the description of the duty is entered into the system.
- User clicks on the "Create Duty" button and the duty is created on the system.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use case name:** Create Course Assistance Duty - Grading

**Actors:** Instructor

**Description:** Subsection of course assistance duty. This duty is about being the respective TA of grading an exam, quiz or any other assignment.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.

- User should select “Create Course Assistance Duty” from the menu.

**Basic Flow:**

- User selects “Grading” after choosing to create a course assistance duty.
- After the selection, the time slot and the description of the duty is entered into the system.
- User clicks on the “Create Duty” button and the duty is created on the system.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use case name:** Create Course Assistance Duty - Recitation

**Actors:** Instructor

**Description:** Subsection of course assistance duty. This duty is about being the respective TA of the assigned recitation.

**Preconditions:**

- User must be logged properly into the system.
- User’s role must be eligible to see this module.
- User should select “Create Course Assistance Duty” from the menu.

**Basic Flow:**

- User selects “Recitation” after choosing to create a course assistance duty.
- After the selection, the time slot and the description of the duty is entered into the system.
- User clicks on the “Create Duty” button and the duty is created on the system.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use case name:** Create Course Assistance Duty - Office Hour

**Actors:** Instructor

**Description:** Subsection of course assistance duty. This duty is about being the respective TA of the assigned office hour.

**Preconditions:**

- User must be logged properly into the system.
- User's role must be eligible to see this module.
- User should select "Create Course Assistance Duty" from the menu.

**Basic Flow:**

- User selects "Office Hour" after choosing to create a course assistance duty.
- After the selection, the time slot and the description of the duty is entered into the system.
- User clicks on the "Create Duty" button and the duty is created on the system.

**Postconditions:**

- Created duty is ready to be assigned to the TA(s).

**Exception Flow:**

- If the selected time slot is not available, the duty cannot be created.

**Use Case Name:** Create Proctoring Duty

**Actors:** Dean, Secretary, Instructors

**Description:** Dean, Secretary and Instructors define an exam and assign proctoring duties. The system ensures that TAs are assigned fairly based on workload and availability.

**Preconditions:**

- The exam must be scheduled (course, section, date/time, and duration must be entered).
- The user (staff or instructor) must be logged into the system.
- The system must be connected to the database and functioning properly.

**Basic Flow:**

- The authorized staff/instructor navigates to the "Create Proctoring Duty" page.
- The user chooses the exam, quiz or duty created before to assign proctors to it.
- The system verifies the exam information and checks for any missing or conflicting data.
- The proctoring duty record will be saved into the system.
- The system notifies relevant users (TAs, staff, instructors) about the new proctoring duty.

**Postconditions:**

- The proctoring duty is recorded in the system.
- The duty is either ready for manual assignment or will be automatically assigned based on the workload at the Assign Duty use case.

**Exception Flow:**

- If mandatory details are missing, the system prompts the user to complete the missing fields.
- If there are conflicts (e.g., overlapping exam times, unavailable rooms), the system alerts the user.
- If no suitable TAs are available, the system provides suggestions:
  - Override certain restrictions (e.g., consecutive proctoring days)
  - Request additional TAs from other departments via the Dean's Office

**Use Case Name:** Cancel Duty

**Actors:** Instructors, Secretary, Admin, Department Chair

**Description:** Course instructors or authorized staff can cancel previously assigned TA duties (including TA tasks and proctoring duties). The cancellation may occur due to schedule conflicts, incorrect assignments, or changes in exam organization.

**Preconditions:**

- The duty must already exist in the system.
- The user must have sufficient privileges to cancel a duty (TAs cannot cancel their own duties).

**Basic Flow:**

- The course instructor or authorized staff navigates to the "Duty Management" page.
- The user selects the duty they want to cancel from the list of assigned duties.
- The system verifies the duty status (e.g., whether it has already been completed, is upcoming, or in progress).
- The system asks for a reason for cancellation (e.g., incorrect assignment, changes in scheduling, TA leave approval).

**Postconditions:**

- The duty is removed in the system.
- Affected users (TAs, instructors, or staff) receive notifications about the cancellation.

**Exception Flow:**

- If the duty has already been completed, the system prevents cancellation.
- If system errors occur (e.g., database issues), an error message is displayed, and the user is advised to retry later.

**Use Case Name:** Assign Duty

**Actors:** Secretary, Admin, Instructors, Secretary

**Description:** The authorized staff or course instructor assigns a TA to an existing duty. The user selects whether the assignment will be manual or automatic. The system processes the assignment based on the selected method.

**Preconditions:**



- The duty must already exist in the system.
- The user must have sufficient privileges to assign the duty.

**Basic Flow:**

- The authorized staff or instructor navigates to the "Assign Duty" page.
- The user sees a list of unassigned duties and selects one.
- The system prompts the user to choose an assignment method:
- Manual Assignment (The user selects a TA manually from the available list).
- Automatic Assignment (The system selects a TA based on workload and eligibility rules).
- The system redirects the user to the appropriate assignment process:
  - If Manual Assignment is selected → The system proceeds with the Manual Assignment use case.
  - If Automatic Assignment is selected → The system proceeds with the Automatic Assignment use case.
- Once the assignment process is completed, the system updates the duty record and notifies relevant users.

**Postconditions:**

- The selected duty is now assigned to a TA.
- The system updates the TA's workload records.
- Affected users (TAs, instructors, or staff) receive notifications.

**Exception Flow:**

- If the user does not select an assignment method, the system prompts them to do so.
- If the system detects a scheduling conflict, the user is notified and must select another TA or modify constraints.
- If the TA's total workload has already exceeded the allowed limit, the system prevents the assignment and suggests choosing another TA.
- If the duty has already reached the maximum number of required TAs, the system prevents further assignments.
- If the selected TA is not compatible with the duty (e.g., MS/PhD course restrictions, proctoring rules, etc.), the system alerts the user and provides alternative suggestions.
- If the system encounters an error (e.g., database issues), an error message is displayed, and the user is advised to retry later.

**Use Case Name:** Manually Assign

**Actors:** Secretary, Dean, Department Chair, Instructor

**Description:** The authorized staff or course instructor manually selects and assigns a TA to a proctoring duty or TA-related task. The system provides a list of available TAs, prioritizing those with the least workload while displaying any warnings for potential conflicts. The system ensures that only eligible TAs can be assigned.

**Preconditions:**

- The duty must already exist in the system.
- The user must have sufficient privileges to manually assign a TA.
- The TA must be eligible for the duty (e.g., no scheduling conflicts, workload within limits).
- The system must be online and functioning properly.

**Basic Flow:**

- The authorized staff or instructor navigates to the "Assign Duty" page.
- The user selects a duty from the list of unassigned duties.
- The system provides an option for manual assignment.
- The user selects "Manually Assign", and the system displays a sorted list of available TAs, prioritizing:
  - TAs with the least workload.
  - TAs from the same department or course.
  - TAs who have no scheduling conflicts or leave requests.
- The user selects a TA from the list and confirms the assignment.
- The system:
  - Updates the TA's workload records.
  - Marks the duty as "Assigned."
  - Notifies the assigned TA and relevant faculty members.

**Postconditions:**

- The duty is now assigned to the selected TA.
- The system updates the TA's workload records.
- The TA and faculty members receive notifications about the assignment.

**Exception Flow:**

- If the TA's total workload has already exceeded the allowed limit, the system prevents the assignment and suggests choosing another TA.
- If the TA has a scheduling conflict or is on leave, the system prevents the assignment and prompts the user to select another TA.
- If the TA is not eligible for the duty (e.g., PhD requirement for an MS/PhD course), the system displays a warning and prevents the assignment.
- If no suitable TAs are available, the system suggests:
  - Overriding certain restrictions (e.g., allowing an extra workload).
  - Requesting additional TAs from other departments via the Dean's Office.
- If the system encounters an error (e.g., database issues), an error message is displayed, and the user is advised to retry later.

**Use Case Name:** Automatically Assign

**Actors:** Department Chair, Secretary, Admin, Instructors

**Description:** The authorized staff or course instructor chooses the automatic assignment option for a duty. The system automatically selects the most suitable TA(s) based on workload and eligibility criteria. The system ensures fair workload distribution while considering constraints such as TA leave, academic level, and conflicts with other duties or exams.

**Preconditions:**

- The duty must already exist in the system.
- The user must have sufficient privileges to assign a TA.
- The system must have eligible TAs available for assignment.
- The system must be online and functioning properly.

**Basic Flow:**

- The authorized staff or instructor navigates to the "Assign Duty" page.
- The user selects a duty from the list of unassigned duties.
- The system provides an option for automatic assignment.
- The user selects "Automatically Assign."
- The system scans the list of available TAs and selects candidates based on the following priority:
  - TAs with the least workload.
  - TAs from the same course (for course-related duties).
  - TAs from the same department (for proctoring duties).
  - TAs who have no conflicts (e.g., exams, leave, prior assignments).

- If multiple TAs meet the criteria, the system balances the assignments by selecting the one with the lowest total workload.
- If the required number of TAs are found, the system assigns them to the duty.
- The system updates the TA's workload records and marks the duty as "Assigned."
- The system notifies the assigned TAs and relevant faculty members.

**Postconditions:**

- The duty is automatically assigned to the most suitable TA(s).
- The system updates the TA's workload records.
- The assigned TA(s) and faculty members receive notifications.

**Exception Flow:**

- If no suitable TAs are found, the system suggests options:
  - Override restrictions (e.g., allow extra workload, break MS/PhD assignment rule).
  - Request additional TAs from other departments via the Dean's Office.
- If a TA reaches their workload limit, the system prevents their assignment and selects another TA.
- If all eligible TAs are unavailable due to conflicts (e.g., leave, exams, prior assignments), the system alerts the user.
- If system errors occur (e.g., database issues), an error message is displayed, and the user is advised to retry later.

**Use Case Name:** Log Duty Workload

**Actors:** TA

**Description:** TAs enter details of the tasks they have completed into the system. The system tracks and logs the total workload of each TA. Course instructors approve or reject the logged tasks before they are counted toward the TA's total workload.

**Preconditions:**

- The TA must be assigned to a course.
- The task must be relevant to TA duties (e.g., grading, lab work, recitations, office hours).
- The TA must be logged into the system.
- The system must be online and functioning properly.

**Basic Flow:**

- The TA navigates to the "Log Duty Workload" page.
- The TA selects the duty assigned to them to log workload for.
- The TA enters the work hours.
- The TA submits the workload entry for approval.
- The course instructor receives a notification and reviews the submission.
- The instructor approves or rejects the submitted workload:
  - If approved, the system updates the TA's total workload.
  - If rejected, the TA receives a notification and may need to resubmit.
- The system logs the final workload status and updates reports accordingly.

**Postconditions:**

- If approved, the workload is added to the TA's total workload for the semester.
- The system updates the TA workload report.
- The TA and the instructor receive notifications regarding the approval status.

**Exception Flow:**

- If the TA tries to log a duty they are not assigned to, the system prevents submission.
- If required fields (e.g., duration, course) are missing, the system prompts the TA to fill in the missing details.
- If the instructor rejects the submission, the TA receives a notification with a reason for rejection.
- If the TA's workload exceeds the allowed limit, the system warns the instructor before approving.
- If system errors occur (e.g., database issues), an error message is displayed, and the TA is advised to retry later.

**Use case name:** Duty Log Request Evaluation

**Actors:** Instructors

**Description:** Instructor displays the workload entered by the TA and takes an action.

**Preconditions:**

- Duty log must be entered by the TA.

- Instructor must be logged in.

**Basic Flow:**

- Instructor receives an e-mail that one of the TAs entered the workload.
- Instructor displays the entered workload.
- Instructor takes an action to accept/reject the entered workload.

**Postconditions:**

- TA's workload is evaluated.

**Exception Flow:**

- If the workload cannot be displayed, the software will display a proper error message.
- Instructor can refresh the page or log in again.
- If the issue remains, the instructor can contact the admin.

**Use case name:** Accept Log

**Actors:** Instructors

**Description:** Instructor accepts the workload entered by the TA.

**Preconditions:**

- Duty log must be entered by the TA.
- Duty to be accepted must be selected.
- Instructor must be logged in.

**Basic Flow:**

- Instructor selects the workload log that TA entered.
- Instructor clicks on the accept button.

**Postconditions:**

- TA's workload is accepted.
- Accepted workload will be added to that TA's total workload.

**Exception Flow:**

- If the workload cannot be selected, the instructor can refresh the page and try again.
- If the issue remains, the instructor can contact the admin.

**Use case name:** Reject Log

**Actors:** Instructors

**Description:** Instructor rejects the workload entered by the TA.

**Preconditions:**

- Duty log must be entered by the TA.
- Duty to be rejected must be selected.
- Instructor must be logged in.

**Basic Flow:**

- Instructor selects the workload log that TA entered.
- Instructor clicks on the reject button.

**Postconditions:**

- TA's workload is rejected.
- Rejected workload will not be counted in that TA's total workload.

**Exception Flow:**

- If the workload cannot be selected, the instructor can refresh the page and try again.
- If the issue remains, the instructor can contact the admin.

**Use case name:** Enter Leave of Absence

**Actors:** TA

**Description:** TA enters when he/she won't be available for TA duties.

**Preconditions:**

- TA must be logged in.

- TA doesn't have a duty for that date.

**Basic Flow:**

- TA opens up the calendar.
- TA selects the dates that he/she won't be available.

**Postconditions:**

- TA will be assigned as absent for selected dates.
- TA cannot be assigned to a duty for the dates he/she is absent.
- An e-mail that informs the dean that TA will be absent for the specific dates is sent by the system automatically.

**Exception Flow:**

- If the absence limit is exceeded, TA cannot select a date to be absent.
- If TA cannot assign himself/herself as absent for a specific date, he/she can refresh the page. If the issue persists, TA can contact admin.

## Data Management

**Use case name:** Import Excel Sheet

**Actors:** Secretary

**Description:** The secretary imports various data lists (offerings, staff, TA, classrooms) into the system.

**Preconditions:**

- User must be logged properly into the system.
- The user's role must be eligible to see this module.

**Basic Flow:**

- The secretary selects "Import Excel Sheet."
- The system displays available import options (offerings, TA list, staff, classrooms).
- The user selects the type of data to import.



**Postconditions:**

- The system updates the relevant database based on the imported data.

**Exception Flow:**

- If the file format is incorrect, the system rejects the upload.

**Use case name:** Import Offerings

**Actors:** Secretary

**Description:** The secretary imports course offerings data from an Excel sheet into the system.

**Preconditions:**

- The user must be logged into the system.
- File format must be proper.
- User should select “Import Offerings” from the menu.

**Basic Flow:**

- The secretary selects the "Import Offerings" option.
- The system prompts the user to upload an Excel file.
- The secretary uploads the file.
- The system validates the format, if it is correct, course offerings are added to the system.

**Postconditions:**

- Course offerings are imported and stored in the system.

**Exception Flow:**

- If the file format is incorrect, an error message is displayed.

**Use case name:** Import Assistant Information List

**Actors:** Secretary

**Description:** The secretary imports a list of teaching assistants into the system.

**Preconditions:**

- The user must be logged into the system.
- File format must be proper.
- User should select “Import Assistant Information List” from the menu.

**Basic Flow:**

- The secretary selects the "Import Assistant Information List" option.
- The system requests an Excel file upload.
- The secretary uploads the file.
- The system verifies the format, if it is correct, the assistant information is added to the system.

**Postconditions:**

- TA data is imported and stored in the system.

**Exception Flow:**

- If the file format is incorrect, an error message is displayed.

**Use case name:** Import Exam Classroom - Student Distribution List

**Actors:** Secretary

**Description:** The secretary imports a list mapping students to exam classrooms.

**Preconditions:**

- The user must be logged into the system.
- File format must be proper.
- User should select “Import Exam Classroom - Student Distribution List” from the menu.

**Basic Flow:**

- The secretary selects "Import Exam Classroom - Student Distribution List."
- The system prompts for an Excel file upload.

- The secretary uploads the file.
- The system verifies the format, if it is correct, the Exam Classroom - Student Distribution information is added to the system.

**Postconditions:**

- Student distributions for exam classrooms are imported and stored in the system.

**Exception Flow:**

- If the file format is incorrect, an error message is displayed.

**Use case name:** Import Staff List

**Actors:** Secretary

**Description:** Secretary imports faculty and administrative staff data.

**Preconditions:**

- The user must be logged into the system.
- File format must be proper.
- User should select “Import Staff List” from the menu.

**Basic Flow:**

- The secretary selects "Import Staff List."
- The system requests an Excel file upload.
- The secretary uploads the file.
- The system verifies the format, if it is correct, the Staff List information is added to the system.

**Postconditions:**

- Staff List information is imported and stored in the system.

**Exception Flow:**

- If the file format is incorrect, an error message is displayed.

**Use case name:** Import Classroom Information List

**Actors:** Secretary

**Description:** Secretary imports classroom data including details such as capacity.

**Preconditions:**

- The user must be logged into the system.
- File format must be proper.
- User should select “Import Classroom Information List” from the menu.

**Basic Flow:**

- The secretary selects "Import Classroom Information List."
- The system requests an Excel file upload.
- The secretary uploads the file.
- The system verifies the format, if it is correct, the Classroom Information List is added to the system.

**Postconditions:**

- Classroom information is imported and stored in the system.

**Exception Flow:**

- If the file format is incorrect, an error message is displayed.

**Use case name:** Export Classroom Student Distribution List

**Actors:** Department Chair, Dean, Instructor, Secretary, Admin

**Description:** Authorized users export the student-classroom assignment list for exams.

**Preconditions:**

- The user must be logged into the system.
- The distribution list must be available in the system.

**Basic Flow:**

- The user selects "Export Classroom Student Distribution List."
- The user downloads the file.

**Postconditions:**

- The user receives an exported file with the student-classroom mapping.

**Exception Flow:**

- If there is an issue generating the file, the system prompts the user to retry.

## Admin Page

**Use case name:** Manage Users

**Actors:** Admin

**Description:** Admin can display, update, add and block the users.

**Preconditions:**

- Admin must be logged in.
- A specific user has to be selected.

**Basic Flow:**

- Admin selects a specific user from the user list.
- Admin chooses the action (update, add or block).
- Admin confirms the action.

**Postconditions:**

- A specific user will be either updated, added or blocked.

**Exception Flow:**

- If an action cannot be taken, an error message will be displayed. Admin can refresh the page and try again.

**Use case name:** Monitor Logs

**Actors:** Admin

**Description:** Admin can display logs and filter them.

**Preconditions:**

- Admin must be logged in.
- Logs must be entered into the system automatically.

**Basic Flow:**

- Admin lists the logs.
- Admin can filter the logs to distinguish them easily.

**Postconditions:**

- Admin will receive the logs saved in the system.

**Exception Flow:**

- If the logs cannot be displayed, the admin can refresh the page.

# Use Case Diagram

For a better experience, click [here](#).

