Functional Requirements-TAMS

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**THE SYSTEM SHALL:**

1. User Management:

| Allow **Teaching Assistants (TAs)**, **Instructors**, and **Administrators** to create and manage their accounts. |
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| Provide **secure login and authentication** for all users. |
| Allow users to **reset their password** via email verification or security questions. |
| Maintain user profiles containing personal details, assigned courses, and contact information. |
| Differentiate access level:   * **Administrator:** can access user accounts,courses and system settings. * **Instructor:** Assign TAs to courses,view grades. * **TA:** view assigned courses,view dashboard, weekly tasks and submit grades. |

2. Course and Assignment Management:

| Allow Instructor to **create**,**edit** and **delete** courses |
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| Allow instructor to assign the TAs to the course |
| Automatically generate a **weekly timetable** for each assigned TA based on the course’s schedule. |
| Allow TAs to **view the course information**, including:Lab schedule and session details |
| Enable instructors to **upload course materials** such as lab manuals, grading rubrics, and assignment guidelines. |
| Allow TAs to **download and view course materials** |

3. Task and Schedule Management:

| Automatically create a **weekly to-do list** for each TA based on the course’s timetable. |
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| Display **lab tasks** in clear order. |
| Allow TAs to **mark tasks as completed, pending, or in progress**. |
| Support **adding notes or uploading supporting files** (e.g., lab notes). |
| Notify TAs of **upcoming deadlines** and overdue tasks via dashboard alerts or email notifications. |
| Allow instructors to **monitor TA task completion progress** in real time |

4. Grading Management

| Allow TAs to **enter grades directly** into the system for lab reports, assignments, and exams. |
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| Allow instructors to **review and approve grades** before submission to the official course system. |
| **Automatically calculate total coursework grades** based on the grading policy |
| Allow exporting grades in **CSV or Excel format** for integration with the instructor’s grading system,and student’s LMS. |
| Maintain a record of all grading history and updates |

5. Dashboard and Reporting:

| Provide a **customized dashboard** for each TA showing:Pending tasks , Upcoming labs Grading progress , Notifications or course updates. |
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| Provide instructors with an **overview dashboard** showing: Lab activity and progress , Completed vs pending grading tasks , course statistics and grade distribution. |
| Generate **weekly reports** summarizing overall weekly progress |
| Allow exporting reports as **PDF or Excel files** |

6. Notifications and Communication:

| The system shall send **email or in-system notifications** for:New task assignments,Deadlines approaching or overdue tasks,Instructor announcements |
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| Support **in-app messaging** or commenting between TAs and instructors for task clarification. |
| Keep record for all communication related to a course. |

7.System Administration:

| Allow the administrator to **add, edit, and deactivate users**. |
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| Allow the administrator to **back up and restore** the database |
| Allow configuration of **semester dates**, **course schedules**, and **system notifications**. |

8. Security and Data Management:

| Ensure **secure data storage** for user credentials and grades. |
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| Enforce **role-based access control** to prevent unauthorized actions |
| Ensure all sensitive data is **encrypted in transit and at rest** |
| Maintain **data integrity** and prevent accidental loss through version control or backups. |

9. Usability and Accessibility:

| Have a **responsive user interface** accessible from desktops, tablets, and mobile devices |
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| Provide **clear navigation** between dashboard, courses, grading, and schedule modules |
| Offer **search and filter functions** for tasks, courses, and students. |
| Support **accessibility standards.** |