# **PROBLEM STATEMENT:**

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| **The problem of** | Managing final years projects FYPs of university. |
| **affects** | Students, supervisors, committee members, and panel members. |
| **The impact of which is** | Inefficient communication, time-consuming allocation and registration, error-prone paperwork, and unnecessary administrative burden. This leads to frustration, delays, and potential errors in the FYP process. |
| **A successful solution would be** | A web-based FYP management system that streamlines communication, automates project allocation and registration, eliminates paper-based processes, and reduces the administrative burden for all stakeholders. |

# **USER STORIES**

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| USER STORIES | ACCEPTANCE CRITERIA |
| 1. **As a** FYP Committee member**,** **I want** to manage user accounts (create, edit, deactivate), including roles and permissions, **so that** I can ensure proper access control and maintain accurate user data within the system. | **Given:** A FYP Committee member with appropriate permissions navigates to the "User Management" section.   * **When:** They select the option to create a new user account.   **Then:** The system should display a form allowing them to enter user details (name, email, role, etc.).  **And:** The system should validate entered information (e.g., email format, unique username).  **And:** Upon successful creation, the system should display a confirmation message and list the new user.   * **When:** They select the option to edit an existing user account.   **Then:** The system should display a pre-populated form with the user's current information.  **And:** The system should allow editing of relevant user details (excluding non-editable fields like username).  **And:** Upon successful update, the system should display a confirmation message and reflect the changes in the user list.   * **When:** They select the option to deactivate a user account.   **Then:** The system should prompt for confirmation before deactivation.  **And:** Upon successful deactivation, the user should be marked as inactive and lose access to the system. |
| 1. **As a** FYP Committee member, **I want** to view and search for users and user groups (students, faculty), **so that I** can effectively manage user access, monitor student participation, and track project progress. | **Given:** A FYP Committee member navigates to the "User Management" section.   * **When:** They navigate to the user list view.   **Then:** The system should display a comprehensive list of all users with their names, roles, and relevant details.   * **When:** They use the search functionality with specific criteria (e.g., name, role).   **Then:** The system should filter the user list based on the provided search terms and display only matching results.  **And:** The search functionality should be case-insensitive and support partial matches. |
| 1. **As a** FYPCommittee member**,** **I want** to create new student user accounts with valid details (name, email, etc.) **so I** can manage student access to the system. | **Given:** A FYP Committee member with appropriate permissions navigates to the "Student Management" section.   * **When:** They select the option to create a new student account.   **Then:** The system should display a form allowing them to enter student details (name, email, etc.).  **And:** The system should validate entered information (e.g., email format, unique username).  **And:** Upon successful creation, the system should display a confirmation message and list the new student in the student list view. |
| 1. **As a FYP Committee member,** **I want** to view a comprehensive list of all registered students with their names, relevant details, and potentially group information (if applicable) **so I** can monitor student participation. | **Given:** A FYP Committee member navigates to the "Student Management" section.   * **When:** They navigate to the student list view.   **Then:** The system should display a comprehensive list of all registered students.  **And:** The student list should include student names, relevant details (e.g., program, year), and potentially group information (if applicable).   * **When:** They utilize the search functionality with specific criteria (e.g., name, group affiliation).   **Then:** The system should filter the student list based on the provided search terms and display only matching results.  **And:** The search functionality should be case-insensitive and support partial matches. |
| 1. **As a FYP Committee member,** **I want** to edit existing student information (excluding non-editable fields) and deactivate student accounts **so that I** can maintain accurate data and manage student access. | **Given:** A FYP Committee member navigates to a student's profile within the student list view.   * **When:** They select the option to edit student information.   **Then:** The system should display a pre-populated form with the student's current information.  **And:** The system should allow editing of relevant student details (excluding non-editable fields like username)  **And:** Upon successful update, the system should display a confirmation message and reflect the changes in the student list view.  **Given:** A FYP Committee member navigates to a student's profile within the student list view.   * **When:** They select the option to deactivate the student account.   **Then:** The system should prompt for confirmation before student account deactivation.  **And:** Upon successful deactivation, the student should be marked as inactive and lose access to the system.  **And:** The student list view should reflect the deactivated status. |
| 1. **As a** FYP Committee member, **I want to** view a list of all faculty members, **so I** can identify potential supervisors for FYP projects. | **Given:** A FYP Committee member navigates to the "Faculty Management" section.   * **When:** They navigate to the faculty list view.   **Then:** The system should display a comprehensive list of all faculty members with their names, departments, and potentially other relevant details (e.g., research areas).  **And:** The list should allow sorting and filtering capabilities (e.g., by department, name). |
| 1. **As a** FYP Committee member, **I want** to manage supervisor workload (maximum 6 FYPs per supervisor), **so I** can ensure balanced workload distribution among faculty. | **Given:** A FYP Committee member navigates to the "Faculty Management" section.   * **When:** They access a specific faculty member's profile.   **Then:** The system should display the faculty member's information, including current assigned FYP projects (number and potentially project titles).  **And:** The system should clearly indicate a maximum workload limit (e.g., "Maximum 6 FYPs").   * **When:** They attempt to assign a new FYP group to a faculty member who has already reached the maximum workload limit.   **Then:** The system should display a warning message indicating the workload limit is exceeded and prevent further assignment until workload allows. |
| 1. **As a** FYP Committee member, **I want** to assign FYP groups to supervisors based on their expertise and workload, **so I** can match student projects with appropriate faculty guidance. | **Given:** A FYP Committee member navigates to the "FYP Management" section (or dedicated assignment section).   * **When:** They access a list of FYP groups and a list of faculty members.   **Then:** The system should display both lists, allowing the committee member to view project details (e.g., title, research area) for each FYP group alongside faculty member information (name, department, expertise).  **And:** The system should allow selection of an FYP group and a faculty member for supervisor assignment.  **Then:** Upon successful assignment, the system should update the faculty member's profile to reflect the new FYP group and update the FYP group information with the assigned supervisor details. |
| 1. **As a** FYP Committee member, **I want** to create evaluation panels from faculty members, **so I** can assign groups of faculty to evaluate student projects. | **Given:** A FYP Committee member navigates to the "Evaluation Management" section.   * **When:** They access the functionality to create a new evaluation panel.   **Then:** The system should provide a mechanism to select faculty members for the panel (e.g., drop-down list, search function with faculty details).  **And:** The system should allow defining basic panel information (e.g., name, optional description).  **And:** The system should enforce limitations on panel size (e.g., minimum and/or maximum number of faculty members).  **Then:** Upon successful panel creation, the system should display the new panel in the list of evaluation panels with its name and relevant details (e.g., number of assigned faculty members). |
| 1. **As a** FYP Committee member, **I want** to assign FYP projects to relevant panels for evaluation, **so I** can ensure fair and diverse evaluation for each project. | **Given:** A FYP Committee member navigates to the "Evaluation Management" section.   * **When:** They access a list of FYP projects and a list of evaluation panels.   **Then:** The system should display both lists in a user-friendly format.   * The FYP project list should showcase project details (e.g., title, research area, potentially student group members) for easy identification. * The evaluation panel list should display panel names and potentially additional information (e.g., number of faculty members, areas of expertise) to aid in informed assignment decisions.   **And:** The system should allow selection of an FYP project and a relevant evaluation panel for assignment.  **Then:** Upon successful assignment, the system should:   * Update the FYP project information to reflect the assigned evaluation panel (e.g., display the panel name or provide a link to view panel details). * Update the evaluation panel information to indicate the newly assigned FYP project (e.g., add the project title to a list of assigned projects). * Provide a confirmation message summarizing the successful assignment. |
| 1. **As a** FYP Committee member, **I want** to set deadlines for FYP project submissions and evaluations, **so I** can maintain a clear timeline for the project cycle. | **Given:** A FYP Committee member navigates to the "Deadline Management" section.   * **When:** They access the functionality to set deadlines.   **Then:** The system should provide a clear and user-friendly interface for defining deadlines (e.g., calendar view, date pickers).  **And:** The system should allow setting separate deadlines for FYP project submissions and evaluations.  **And:** The system should offer options to set deadlines for specific project stages or overall project completion (if applicable).  **Then:** Upon successful deadline creation, the system should display the new deadlines in a dedicated list or calendar view with clear labels (e.g., "Submission Deadline", "Evaluation Deadline"). |
| 1. **As a** FYP Committee member, **I want** to view a list of upcoming deadlines and track completion status, **so I** can monitor progress and identify any potential delays.   . | **Given:** A FYP Committee member navigates to the "Deadline Management" section.   * **When:** They access the list of deadlines.   **Then:** The system should display a comprehensive list of upcoming deadlines for FYP submissions and evaluations.   * The deadline list should be well-organized and easy to understand, potentially utilizing visual cues like colors or icons to indicate approaching deadlines. * The list should include clear labels for each deadline type (submission/evaluation) and the associated FYP projects. * deadline type (submission/evaluation) and the associated FYP projects.   **And:** The system should provide a mechanism to track completion status for each deadline (e.g., green checkmark for met deadlines, red indicator for approaching or missed deadlines).  Clicking on a deadline entry could provide access to detailed information about submissions or evaluations received and outstanding |
| 1. **As a** FYP Committee member, **I want to** generate reports on missing evaluations (student assessments, faculty member evaluations), **so I** can identify and address any incomplete evaluations. | **Given:** A FYP Committee member navigates to the "Reporting Management" section.   * **When:** They select the option to generate a "Missing Evaluation Report."   **Then:** The system should generate a report that identifies missing evaluations for FYP projects.   * The report should include details like project titles, student group information, and specific missing evaluations (e.g., missing student assessment, missing evaluation from a particular faculty member in the assigned panel). * The report should be downloadable in a user-friendly format (e.g., PDF, CSV) for further analysis or sharing |
| 1. **As a** FYP Committee member, **I want to** generate reports on supervisor workload distribution and student grades statistics, **so that I** can analyze trends and improve the FYP process. | **Given:** A FYP Committee member navigates to the "Reporting Management" section.   * **When:** They select the option to generate a "Supervisor Workload Report."   **Then:** The system should generate a report that provides an overview of supervisor workload distribution.   * The report should display faculty member names, departments, and the number of FYP projects they are currently supervising. * The report can be presented in various formats (e.g., tabular, chart) to visualize workload distribution trends. * **When:** They select the option to generate a "Student Grades Report."   **Then:** The system should generate a report that provides statistics on student grades for FYP projects.   * The report should offer options to filter by specific project categories, semesters, or other relevant criteria. * The report can present data in various formats like overall grade distribution (e.g., percentage of A's, B's, etc.), average grades per project, or faculty member grading trends (if applicable). * The report should be downloadable in a user-friendly format (e.g., PDF, CSV) for further analysis or sharing. |
| 1. **As a** student, **I want** to view my FYP group details **so that** I can stay informed about my project details. | **Given**: I am logged into the system.   * **When**: I navigate to the dashboard, * **Then**: I should see a clear display of my FYP group members, along with the project title,description and supervisor information. |
| 1. **As a** student, **I want** to see the assigned evaluation panels for my FYP **so that** I can prepare for presentations accordingly. | **Given:** I am logged into the system.   * **When:** I navigate to the designated section. * **Then**: The interface should clearly show the panels assigned to evaluate the student's FYP without revealing individual panel member names. |
| 1. **As a** student, **I want** to view the comments and suggestions provided by the evaluation panels **so that** I can improve my FYP based on feedback. | **Give:** I am logged into the system   * **When:** I access the comments section. * **Then:** The interface should display comments and suggestions from the evaluation panels while keeping panel member names hidden. |
| 1. **As a** student, **I want** to know the deadlines for presentations and document submissions **so that** I can plan and submit work on time. | **Given:** I am logged into the system   * **When:** The student navigates to the deadlines section. * **Then:** The interface should display deadlines for FYP presentations and document submissions. |
| 1. **As a** student, **I want** to see my final grades for the FYP **so that** I can assess my performance and track my progress. | **Given:** The grades are finalized for the FYP.   * **When:** The student accesses the grades section. * **Then:** The interface should clearly present individual and group grades, including any additional comments from the evaluation panels. |
| 1. **As a** student, **I want** a user-friendly interface for easy navigation **so that** I can access information efficiently | **Given:** The student is using the interface.   * **When:** The student interacts with different sections. * **Then:** The interface should have an intuitive design, ensuring easy navigation for the student. |
| 1. **As a** student, **I want** to receive notifications for upcoming deadlines and announcements **so that** I can stay updated on important events. | **Given:** I am logged into the system as a student.   * **When:** There are upcoming deadlines or announcements. * **Then:** I should receive timely notifications to keep me informed |
| 1. **As a** student, **I want** to have an option to contact my supervisor through the interface **so** **that** I can easily communicate with them regarding project-related queries. | **Given:** I am logged into the system as a student.   * **When:** I need to communicate with my supervisor. * **Then:** I should have a communication channel available within the interface to contact them. |
| 1. **As a** supervisor member, **I want** to be logged in successfully in supervisor members interface, **so that** only authorized faculty can access the system. | **Given:** User navigates to login page   * **When:** they attempt to log in with valid credentials * **Then:** system should authenticate the users’ credentials   **Given:** User navigates to login page   * **When:** they attempt to log in with invalid credentials * **Then:** system should display invalid credentials error message |
| 1. **As a** supervisor, **I want** to view a list of all active Final Year Project that I am currently supervising **so that** I can keep track of their progress | **Given** that I am log in as supervisor.   * **When**: I navigate the search option * **Then:** I should see a section displaying the names of the Final year project that are assigned to me |
| 1. **As a** supervisor, **I want** to have access to each evaluation of projects that are assigned to me, **so that** I can provide grades and assessments. | **Given:** that I am logged in as supervisor.   * **When:** I select a specific project * **Then:** I should be able to access its evaluation |
| 1. **As a** supervisor, **I want** to receive notifications for deadlines related to Final year projects assessments, **so that** I can plan accordingly | **Given:** that I am log in as supervisor.  **When:** I navigate the notification section  **Then:** I should see upcoming deadlines for FYP assessments |
| 1. **As a** supervisor, **I want** to view assignments of projects to different panels, **so that** I am aware of the panel members. | **Given:** that I am log in as supervisor.  **When:** I access the details of a specific FYP,  **Then:** I should see the name and role of the panel members assigned to FYP. |
| 1. **As a** supervisor, **I want** to view comments and suggestions provided by panel members during the project evaluation, **so that** I can incorporate them into my feedback. | **Given:** that I am log in as supervisor   * **When:** I access the evaluation for specific Fyp * **Then:** I should be able to see any comments or suggestions submitted by panel members |
| 1. **As a** faculty member, **I want** to be logged in successfully in panel members interface, **so that** only authorized faculty can access the system. | **Given:** User navigates to login page   * **When:** they attempt to log in with valid credentials * **Then:** system should authenticate the users’ credentials   **Given:** User navigates to login page   * **When:** they attempt to log in with invalid credentials * **Then:** system should display invalid credentials error message |
| 1. **As a** faculty member, **I want** to view a comprehensive list of all Final Year Projects assigned to my panel, including details such as group members and FYP descriptions, **so that** I can easily access relevant project information. | **Given** that I am logged into the panel members interface,   * **When** I navigate to the assigned FYPs section * **Then** I should see a list of all FYPs that are assigned to my panel. |
| 1. **As a** faculty member, **I would** like to be notified if there are any missing assessment forms for the projects allocated to my panel **so that** I can complete them right away. | **Given** that I am logged into panel members interface.   * **When** I access the evaluation section for a specific   Project   * **Then** the interface should display any pending evaluation forms * **And** I should receive notifications indicating the presence of any   Missing evaluation forms |
| 1. **As a** panel member head, **I want** to ensure that each faculty member is assigned to only one panel, so **that** it prevents any ambiguity or conflicts of interest in the evaluation process. | **Given that** a faculty member attempts to join a panel,   * **When** they are already assigned to another panel, * **Then** the system should prevent them from joining the new panel and display a clear error message indicating that they are already assigned to a panel. |
| 1. **As a** panel member, **I want** to be able to search for a specific project assigned with my panel, **so that** I can quickly find the project to evaluate. | **Given t**hat I am on the panel members interface,   * **When** I utilize the search functionality to find a Final Year Project (FYP), * **Then** I should be able to search by project title, group members, or other relevant keywords. |

# **ROLES:**

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| **PRODUCT OWNER** | Bareera Fatima in product owner. Her responsibility includes:   * Developing and maintaining the product backlog. * Prioritizing items in the backlog based on stakeholder needs and business value. * Collaborating with the Scrum Team to refine backlog items and ensure a clear understanding of requirements. |
| **SCRUM MASTER** | Aimen Asad is the scrum master. Her responsibility includes:  Facilitating Scrum events such as Sprint Planning, Daily Stand-ups, Sprint Reviews, and Retrospectives.   * Coaching the Scrum Team on Scrum principles, practices, and values. * Removing impediments or blockers that hinder the progress of the team. * Shielding the team from external distractions and influences. * Helping the organization embrace and adopt Scrum principles and practices. |
| **Development Team** | Hadiya Faisal is the part of the development  Team. Her roles include:   * Collaborating with the Product Owner to understand and refine requirements. * Estimating and selecting the backlog items they commit to completing in the Sprint. * Self-organizing to determine how to best accomplish the work. * Creating and delivering increments of the product during each Sprint. * Ensuring that the product increment meets the Definition of Done. |