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Submitted to-

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Introduction

Thesis supervision is essential in higher education, but manual allocation often causes inefficiency, bias, and mismatches. ThesisHub is developed to automate supervisor-student allocation based on research interests, expertise, and workload. The system also supports progress tracking, communication, and document management, ensuring transparency and efficiency.

1. Project Title:

ThesisHub: Automated Thesis Supervision Allocation & Management System

Team Members:

- **Abdullah Nazmus-Sakib** (ID: 383)
- **Khaled Mahmud Jon** (ID: 391)
- **Shah Sultan** (ID: 379)
- **Tawhidul Islam** (ID: 395)

2. Project Overview

Short Description

ThesisHub is a smart, centralized system designed to streamline the thesis supervision process in academic institutions. It automates the allocation of supervisors to students based on research interests, availability, and expertise, while also managing progress tracking, communication, and deadlines. This reduces administrative overhead and enhances transparency and efficiency for both students and faculty.

Target Platform

- Web-based application (desktop-first, responsive for mobile and tablets)

Visual Style

- Clean, modern UI with academic and professional tones
- Minimalist design with a soft neutral color palette (e.g., white, navy blue, grey)
- Intuitive dashboards and data-driven visuals (charts, timelines)

Audio Style

- Minimal or optional audio
- Light notification sounds for deadlines, messages, and task updates
- Professional and non-intrusive audio environment to maintain focus

3. ThesisHub – Project Flow Documentation

Project Flow Screens & Navigation

3.1 Landing Screen

- Project Title: **ThesisHub**
- Buttons: Login, Register

Flow:

- New users → Register
 - Returning users → Login
-

3.2. Authentication Screens

- **Login Screen**
 - Inputs: User ID, Password
 - Redirects to dashboard based on role
 - **Register Screen**
 - Inputs: Name, ID, Email, Password
 - Role: (Student / Teacher – requires Chairman approval)
-

3.3 Student Flow

Student Dashboard

- Menu Options:
 - Group Management
 - Teacher Preferences
 - My Supervisor
 - Tasks
 - Notifications

3.4 Student Screens

1. **Group Management** – create/join group
 2. **Preference Submission** – rank teachers
 3. **My Supervisor** – view assigned teacher
 4. **Tasks** – submit deliverables, track progress
 5. **Notifications** – alerts about assignments
-

3.5 Teacher Flow

Teacher Dashboard

- Menu Options:
 - My Groups
 - Assign Tasks
 - Evaluate Tasks
 - Final Marks
 - Notifications

3.6 Teacher Screens

1. **My Groups** – view assigned groups
 2. **Assign Tasks** – create/edit tasks
 3. **Evaluate Tasks** – review student work
 4. **Final Marks** – mark out of 100
 5. **Notifications** – submission alerts
-

3.7. Chairman Flow (Admin)

Chairman Dashboard

- Menu Options:
 - View Groups
 - Sort Groups
 - Supervisor Allocation
 - Override Assignments
 - Reports
 - Notifications

3.8 Chairman Screens

1. **View Groups** – group details with CGPA
2. **Sort Groups** – auto-sort by CGPA
3. **Supervisor Allocation** – assign teachers (max 2 groups per teacher)
4. **Override Assignments** – manual reassignment
5. **Reports** – generate PDF/CSV reports

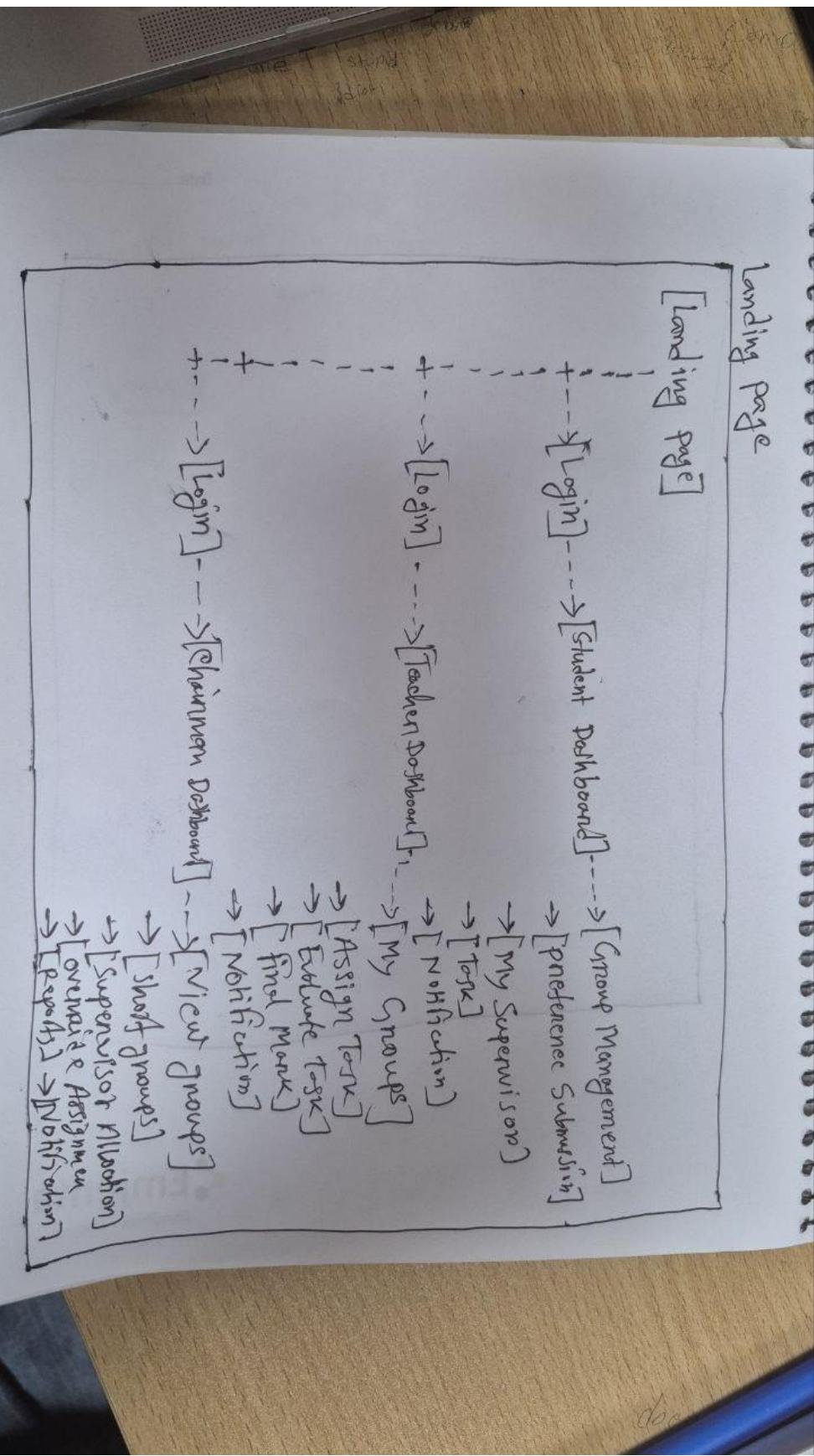
6. **Notifications** – pending approvals, updates

3.9. Common Screens

- **Profile Screen** – edit details
 - **Notifications** – alerts & updates
 - **Logout** – return to landing screen
-

 **Screen Navigation Flow**

 **Homepage**



4. User Interface

The system will have three main user roles — **Student, Teacher, Chairman (Admin)**. Each role will have its own dashboard and interface design.

4.1 Student UI

Login/Registration Page

- **Inputs:** Student ID, Password.
- **Action:** Redirects to Student Dashboard upon successful login.
- **Visuals:** Modern, minimal form with highlighted borders on focus.
- **Sounds:** Soft notification sound on successful login.

Dashboard (Student)

- **Modules:** Group Formation, Teacher Preference Submission, Assigned Supervisor, Task Progress, Evaluation Report.
- **Navigation:** Top navigation bar with *Home, Tasks, Notifications, Logout*.

Group Formation Page

- Students can form a group of two members.
- **Visuals:** Dropdown/auto-search box for selecting a group partner.

Teacher Preference Submission Page

- List of teachers displayed in preference order.
- **Visuals:** Drag-and-drop ordering or priority numbering system.

Task Progress Page

- Displays supervisor-assigned tasks with deadlines.
- **Visuals:** Progress bar for each task's completion status.

Evaluation Page

- Displays marks and feedback for each submission.
 - **Visuals:** Tabular format for clarity.
-

Usages Description

ThesisHub supports several core usage flows for Students, Teachers, and the Chairman. Each role interacts with the system differently. Below are the main interactions:

Student Usage

1. Group Formation

- **Action:** A student selects classmates and forms a group.
- **System Flow:** The system records group members, validates eligibility, and assigns a group ID.
- **Rules:** Groups must have 2–3 students; duplicate group members are not allowed.
- **Outcome:** A valid group is created and saved in the system.

2. Teacher Preference Submission

- **Action:** The group submits a ranked list of preferred teachers for supervision.
 - **System Flow:** Preferences are stored, and CGPA data is linked with the group.
 - **Rules:** Each group must select at least 3 teachers; preferences cannot be changed after deadline.
 - **Outcome:** Group preferences are queued for allocation.
-

Teacher Usage

1. Viewing Assigned Groups

- **Action:** A teacher logs in and checks the list of groups assigned to them.
- **System Flow:** The system displays group details (members, CGPA, thesis topic).
- **Outcome:** Teacher can see all supervised groups.

2. Creating Tasks & Deadlines

- **Action:** Teacher creates thesis-related tasks (proposal submission, progress reports, final draft).
 - **System Flow:** The system stores deadlines and notifies students automatically.
 - **Rules:** Deadlines must be set within the semester duration.
 - **Outcome:** Students are notified of tasks and progress can be tracked.
-

Chairman Usage

1. Viewing Groups & Preferences

- **Action:** Chairman views all student groups with CGPA and preferred teachers.
- **System Flow:** Data is displayed in a consolidated list.
- **Outcome:** Chairman has a transparent overview of student requests.

2. Automated Allocation of Supervisors

- **Action:** Chairman initiates the allocation process.
- **System Flow:** The system assigns groups to teachers based on CGPA, preferences, and teacher availability.
- **Rules:** Each teacher can supervise a maximum of 2 groups. If conflicts occur, CGPA priority is applied.
- **Outcome:** Supervisors are fairly assigned, ensuring balanced workload distribution.

The screenshot shows the ThesisHub system interface. On the left, there's a main content area with sections for 'Project Title' (containing team members), 'Project Overview' (with a short description), and 'Target Platform', 'Visual Style', 'Audio Style'. On the right, a navigation sidebar titled 'Pages 2' lists various project components: Home, Project description, ThesisHub - Project Flow Documentation, Project Flow Screens & Navigation, and a detailed list of screens from 3.1 to 3.9, along with common screens and a screen navigation flow.

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Project description

- 1. Project Title:
- 2. Project Overview
- 3. Short Description
- 4. Target Platform
- 5. Visual Style
- 6. Audio Style
- 7. ThesisHub – Project Flow Documentation
- 8. Project Flow Screens & Navigation
 - 3.1 Landing Screen
 - 3.2. Authentication Screens
 - 3.3 Student Flow
 - 3.4 Student Dashboard
 - 3.5 Teacher Flow
 - 3.6 Teacher Dashboard
 - 3.7. Chairman Flow (Admin)
 - 3.8 Chairman Dashboard
 - 3.9. Common Screens
 - 9. Screen Navigation Flow
- 10. Homepage
- 11. User Interface
 - 4.1 Student UI
 - 4.2 Login/Registration Page
 - 4.3 Dashboard (Student)
 - 4.4 Group Formation Page
 - 4.5 Teacher Preference Submission Page

The screenshot continues the ThesisHub system interface. It shows sections for 'Target Platform', 'Visual Style', and 'Audio Style' on the left, each with a list of bullet points. On the right, there's a detailed list of user interface components under 'User Interface', including 'Student UI', 'Teacher UI', and 'Chairman UI' with their respective sub-pages.

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User Interface

- 4.1 Student UI
 - Login/Registration Page
 - Dashboard (Student)
 - Group Formation Page
 - Teacher Preference Submission Page
- 4.2 Teacher UI
- 4.3 Chairman UI
 - Dashboard (Chairman)
 - Group Formation Page
 - Teacher Preference Submission Page

3. ThesisHub – Project Flow Documentation

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3.5 Teacher Flow

Teacher Dashboard

- Menu Options:
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Task Progress Page

Evaluation Page

Usages Description

Student Usage

1. Group Formation

2. Teacher Preference

Submission

Teacher Usage

1. Viewing Assigned Groups

2. Creating Tasks & Deadlines

Chairman Usage

1. Viewing Groups &

Preferences

2. Automated Allocation of

Supervisors

+ Add a custom sidebar

Clone this wiki locally

<https://github.com/AbdullahRFA/Thesi>

3.7. Chairman Flow (Admin)

Chairman Dashboard

- Menu Options:
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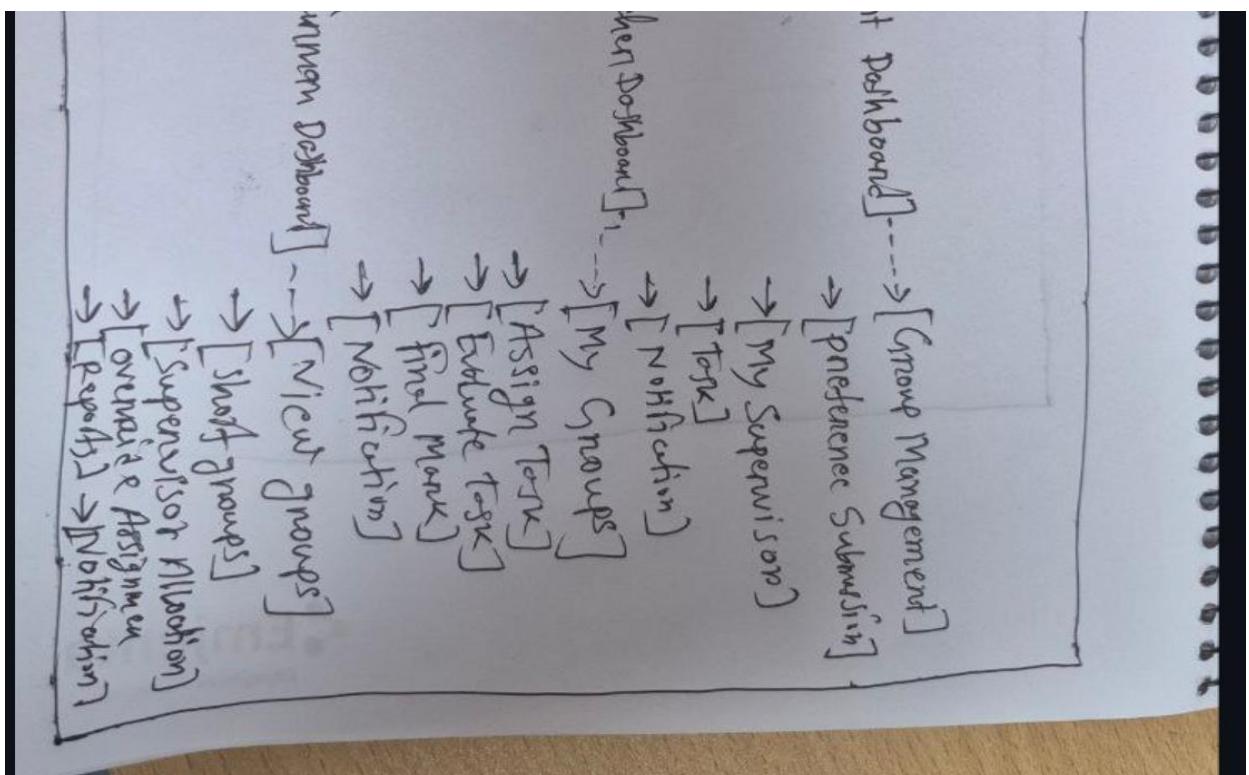
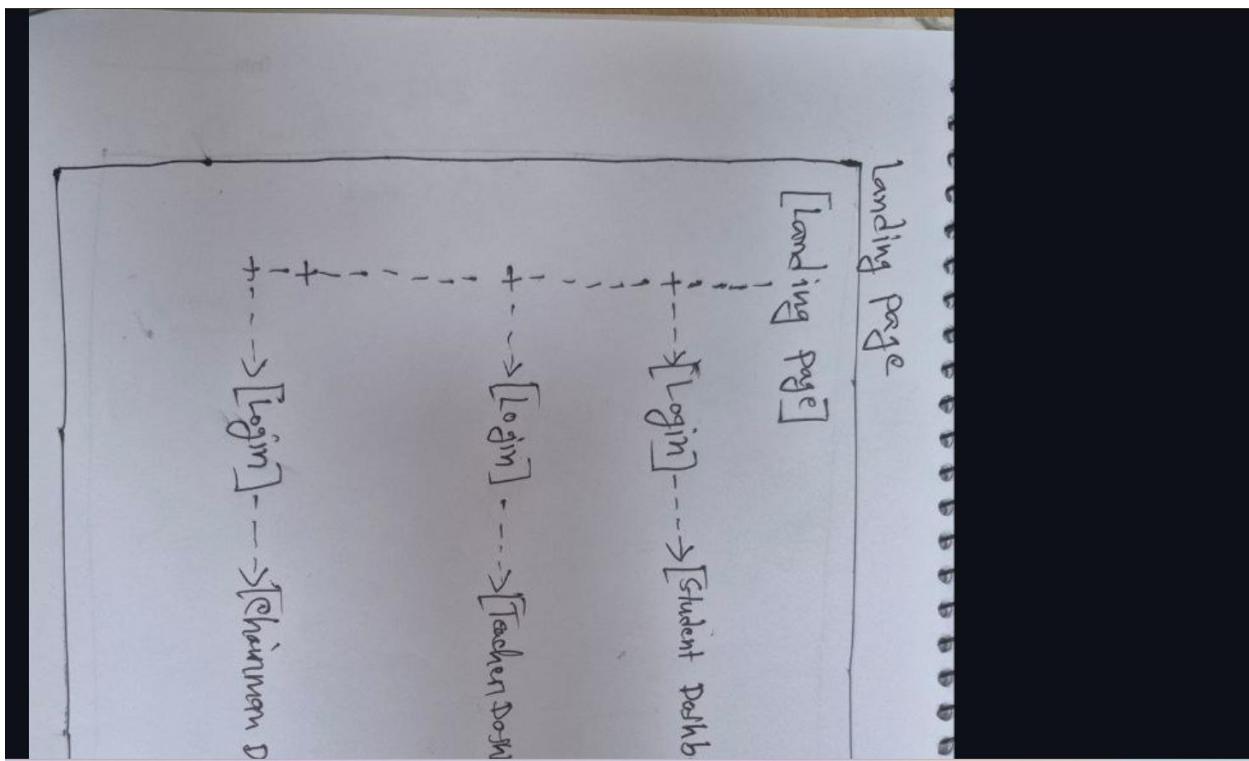
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Screen Navigation Flow



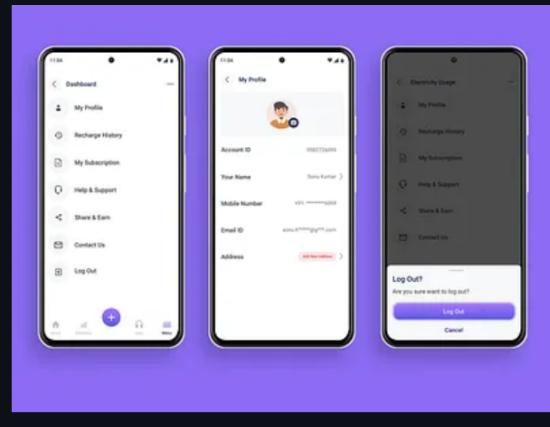
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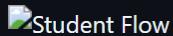
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+ Add a custom footer

Conclusion

ThesisHub provides a fair, automated, and efficient way to manage thesis supervision. It minimizes bias, balances workloads, and improves collaboration between students and supervisors. By reducing administrative tasks, the system enhances research quality, fairness, and transparency in academic institutions.

GitHub link: https://github.com/AbdullahRFA/ThesisHUb-Automated_Supervisor_Allocation_and_Management_System