

Project Code: 25-2-D-7



MentorMatch

Presented by Roee Bar & Eldar Gafarov

Supervised by : Dr. Julia Sheidin

Current State



Email Communication

Students send individual emails to potential supervisors, creating inbox congestion and delayed responses

Excel Spreadsheets Management

Project coordinators maintain an Excel spreadsheets that become outdated quickly

Departmental Email Updates

Occasional announcements about supervisor availability provide only snapshots at specific times

Word-of-Mouth Information

Students rely on peer information about supervisor preferences, leading to inconsistent data

Problem Statement

Limited Visibility

Students lack clear information about available supervisors and research areas, forcing trial and error contact with no centralized system.

Communication Inefficiency

Students and supervisors waste time on repetitive emails. Supervisors get overwhelmed while students craft individual inquiries.

Administrative Burden

Manual tracking through Excel spreadsheets leads to errors, outdated information, and time-consuming cross-checking.

Missed Opportunities

Optimal matches are overlooked due to poor visibility, causing students to settle for suboptimal alignments.



Key Stakeholders

Students

Need to **find** supervisors, **understand** research interests, and navigate the application process efficiently

Supervisors

Need to **manage** inquiries, **communicate** availability, and **identify** aligned students

Final Project Coordinators

Oversee the entire project process, **approve** proposals, **finding** supervisors for students that **doesn't** have one.

Administrative Staff

Responsible for **managing** registration and **handling** administrative tasks.

Proposed Solution



Student Application Portal

Structured applications with skills and interests
Standardized process for consistent information

Supervisor Profiles

Research interests, capacity, and project suggestions
Eliminates information gaps and exploratory emails

Administrative Oversight

Monitoring tools for project coordinators
Reduces manual cross-checking and reminders

Real Time Matching Dashboard

Live capacity tracking and application status
Prevents double-bookings and conflicts

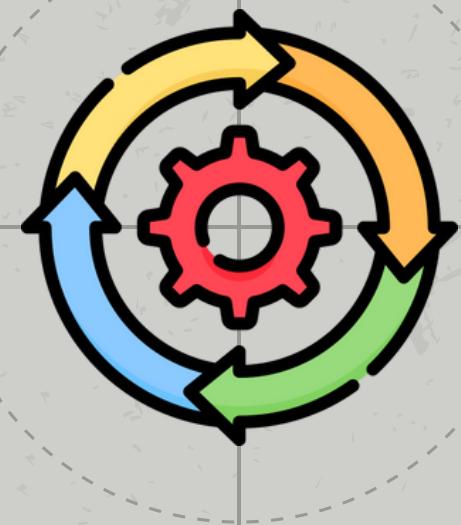
Capstone Project Workflow

STEP 1

Conduct literature review to establish foundational knowledge.

STEP 2

Conduct interviews to gather information from stakeholders



STEP 4

Present the Prototype to stakeholders for feedback and improvements.

STEP 3

Build a Prototype according to the insights

Interview Findings



Communication Breakdown

- Students contact multiple supervisors simultaneously without proper follow-up
- Last-minute email surges before deadlines

Information Visibility Gap

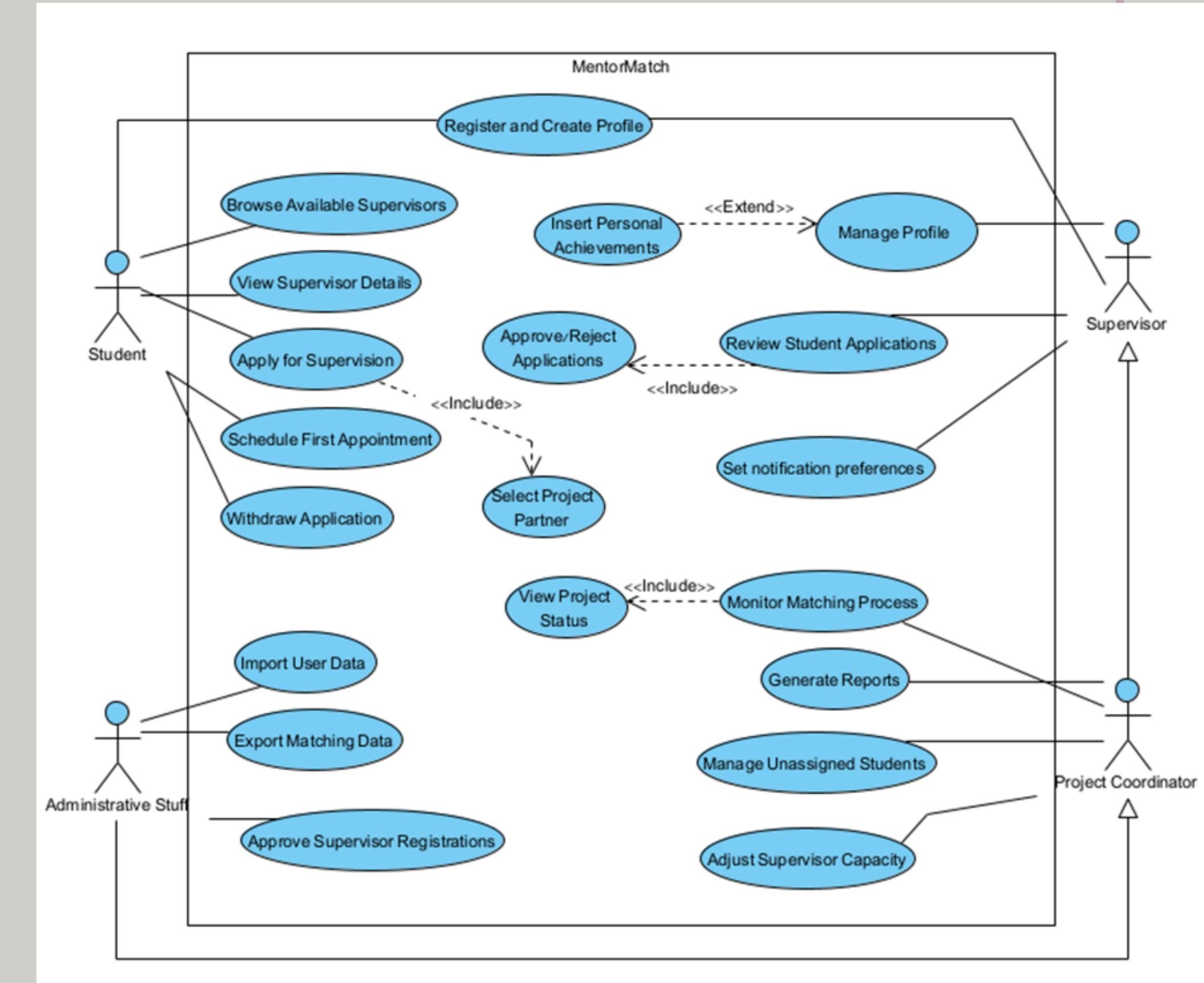
- No centralized supervisor availability or research interests
- Limited understanding between students and potential supervisors

Student Commitment Issues

- Students "shop around" without notifying rejected supervisors
- Impact on supervisor capacity planning and other students' opportunities

***All stakeholders struggle with the same core issue: lack of a centralized, transparent system for managing the student-supervisor matching process.**

Use Case Based on Requirements Document



The image shows a screenshot of the MentorMatch platform's Student View. At the top, there is a navigation bar with the MentorMatch logo, links for 'For Students', 'For Supervisors', and 'Administration', and a language switcher set to 'ES'. Below the navigation, the text 'Student View' is displayed. A large heading 'Find Your Project Supervisor' is followed by a search bar with placeholder text 'Search by name, research area, or keywords' and a 'Filters' button. Three tabs are visible: 'Available Supervisors' (selected), 'Suggested Projects', and 'My Applications'. The main content area displays two supervisor profiles in cards:

- Dr. Julia Sheidin** (represented by a blue circle with 'JS')
 - Software Engineering Department
 - Web Development, User Experience, Project Management
 - Capacity: 2/5 projects
 - Progress bar: 2 blue segments, 3 grey segments
 - [Apply for Supervision](#), [View Details](#)
- Dr. Eldar Gafarov** (represented by a blue circle with 'NK')
 - Software Engineering Department
 - Machine Learning, AI Systems, Data Science
 - Capacity: 4/5 projects
 - Progress bar: 4 blue segments, 1 grey segment
 - [Apply for Supervision](#), [View Details](#)

Prototype: Student View

 **MentorMatch**

For Students For Supervisors Administration ES

Student View Supervisor View Admin View

Supervisor Dashboard

Current Projects **3/5**

Pending Applications **4**

Available Slots **2**

[Pending Applications](#) [Current Projects](#) [My Project Topics](#)

Student	Project Topic	Applied On	Status	Actions
Eldar Gafarov & Roee Bar	Web-based Project Management System	Apr 12, 2025	Pending	Review
Israel Israeli & Muhammad Ayuf	AI-Enhanced Learning Platform	Apr 14, 2025	Pending	Review
Ben Cohen	Mobile Application for Student Engagement	Apr 15, 2025	Pending	Review
Nadir Levy	Automated Testing Framework	Apr 16, 2025	Pending	Review

Prototype: Supervisor View

Administrator Dashboard

Total Students

120

Matched Students

98

Pending Matches

22

Active Supervisors

15[All Projects](#)[Unassigned Students](#)[Supervisor Management](#)

Search by student, supervisor, or project name

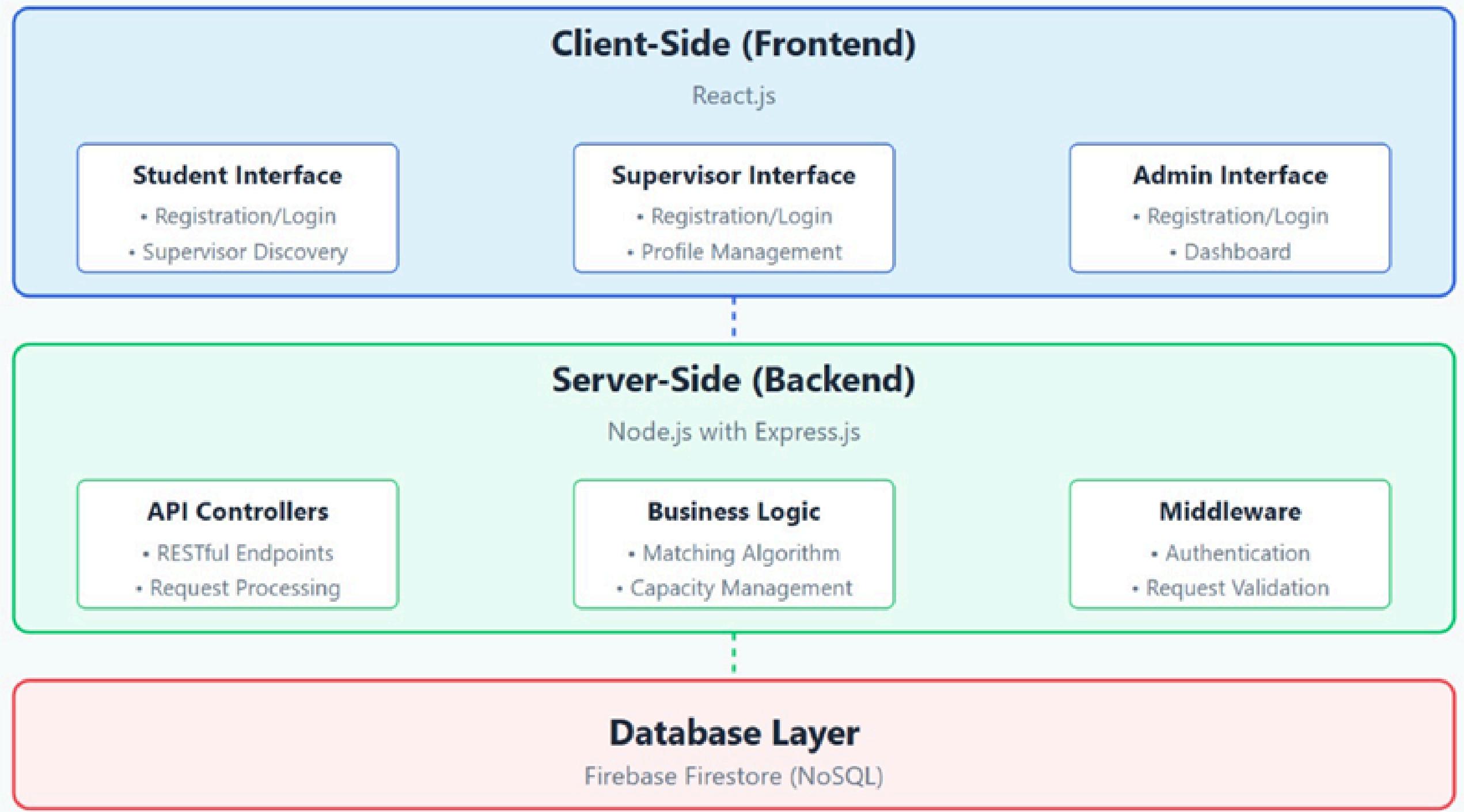
Filters

Project Code	Students	Supervisor	Project Title	Status	Actions
25-1-D-01	Eldar Gafarov, Roee Bar	Dr. Julia Sheidin	MentorMatch: Supervisor-Student Matching System	Approved	Details
25-1-D-02	Ben Cohen, Nadir Levy	Dr. Israel Israeli	AI-Based Learning Analytics Platform	Approved	Details
25-1-D-03	Sarah Goldman, David Mizrahi	Dr. Anat Dahan	Secure Code Review Automation	Pending Approval	Details
25-1-D-04	Maya Levi	Unassigned	Mobile Health Monitoring App	Unassigned	Assign

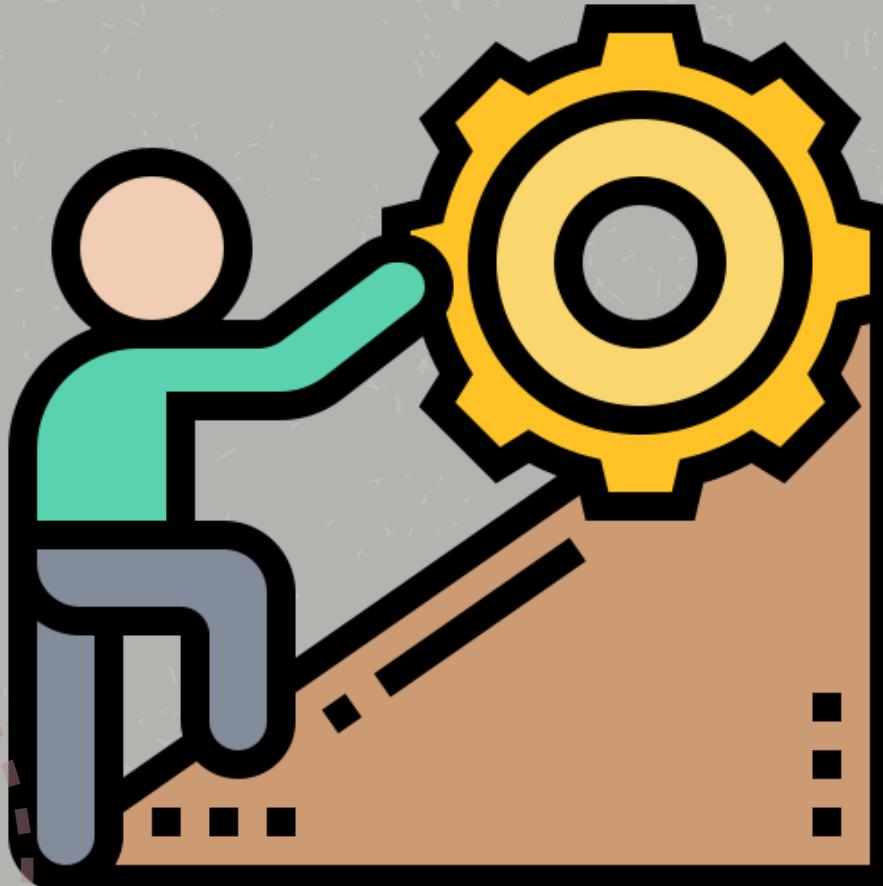
Prototype: Project Administrator View

MentorMatch System Architecture

Three-Tier Architecture



Project Success Challenges



User Adoption Resistance

- Supervisors accustomed to email-based processes may resist change
- Learning curve for faculty and administrative staff

Data Management Complexity

- Maintaining a consistent communication history across the platform
- Database storage limitations with free-tier services
- Keeping supervisor availability information current and updated

Communication Management

- Establishing structured communication protocols between students and supervisors
- Managing notification overload while maintaining engagement

The biggest challenge is achieving widespread adoption while maintaining the quality and accuracy of the matching process

Project Goals



Addressing Mentor-Mentee Gaps

The system connects students with mentors to enhance learning opportunities and provide guidance for academic and personal growth.

Fostering Community Engagement

Encourages active participation and collaboration among students, creating a supportive network that enhances the educational experience.

Testing Strategy

- **Functional Testing:** Profile creation, application submission, matching workflow
- **User Group Evaluation:** Usability testing with students, supervisors, and Project coordinators
- **Performance Testing:** System handling during peak registration periods

3.4.1. Testing Plan

Test Number	Test Subject	Test Headline	Expected Result
1	Supervisor Profile Creation	Supervisors create and update their profiles with research interests and capacity	Profiles are successfully created and visible to students
2	Student Application Submission	Students browse for supervisors and submit applications	Applications are recorded and notifications are sent to supervisors
3	Application Review Process	Supervisors review and respond to student applications	Responses are recorded, and students are notified of status changes
4	Matching Filter	The system suggests potential matches based on interests	Appropriate supervisor suggestions are provided to students
5	Project coordinators Oversight	Project coordinators monitor the matching process and the application status.	The dashboard accurately reflects the current matching and application statuses.
6	Administrative Oversight	Administrative staff monitor the matching process.	The dashboard accurately reflects the current matching status.

Success Metrics

Efficiency

30% reduction in
matching process time



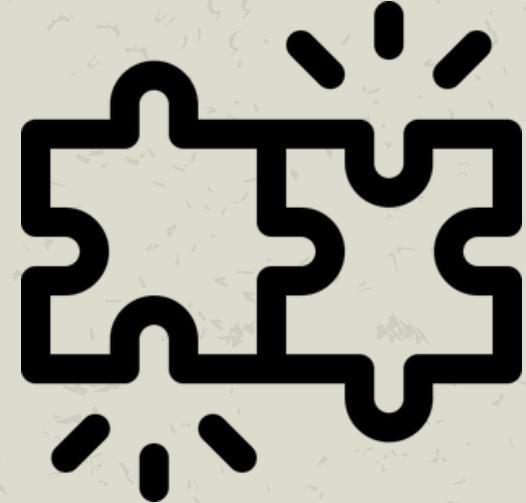
User Satisfaction

>80% satisfaction rating
from all user groups



Matching Success

90% of students matched
before semester start



Thank You

Questions & Discussion

MentorMatch Team:
Eldar Gafarov • Roee Bar

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it's a match