

CS 682 Project

**Project 1 - A Portal for Managing
Students Capstone Projects**

USER MANUAL

Submitted by -

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I. Open the application

- There are two ways to open the application.
 - a. We have hosted the application and can be accessed using the following URL:
“<https://capstoneprojectsportal.vercel.app/>”
 - b. Another way is to set up the project locally.

II. Setup/Run Project Locally

1. Download the source code of the project to your local machine. This can be done by cloning the git repository, using the following command:
 - o “git clone <https://github.com/VijayTummalapalli3715/A-Portal-for-Managing-Students-Capstone-Projects>”
2. Setting up the environment variables:
 - o **Front-End**
 - a. Open the front-end folder in the project directory.
 - b. Create a new file named “.env”.
 - c. Paste the following content inside this file:

```
FRONTEND_PORT=4000
BACKEND_URL=http://localhost:388525806207/web:2774c19ab2367f5
30be54aTNa62yzvrlp0nOr1y3KMf9jqnxOpD-3U"
VITE_FIREBASE_AUTH_DOMAIN="capstone-
41093.firebaseio.com"
VITE_FIREBASE_PROJECT_ID="capstone-41093"
VITE_FIREBASE_STORAGE_BUCKET="capstone-
41093.firebaseiostorage.app"
VITE_FIREBASE_MESSAGING_SENDER_ID="388525806207"
VITE_FIREBASE_APP_ID="1:388525806207:web:2774c19ab2367f
530be54a"
```

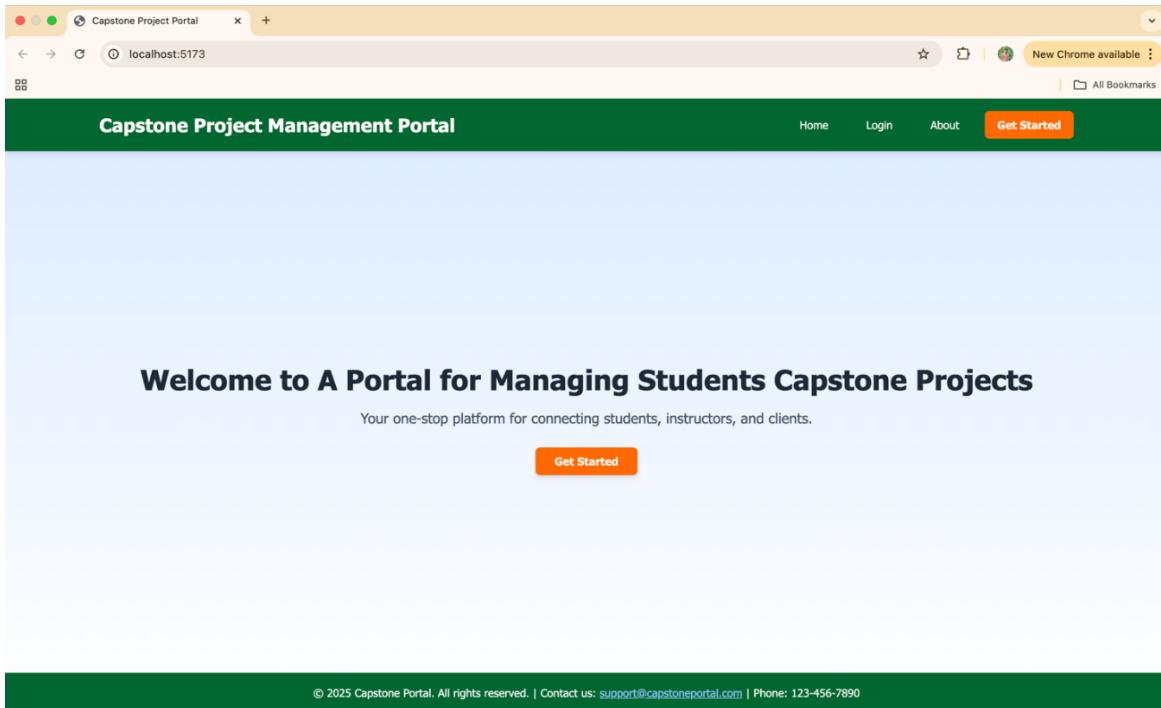
- o **Back-End**
 - a. Open the back-end folder in the project directory.
 - b. Create a new file named “.env”.
 - c. Paste the following content inside this file:

```
PORt=5006
DB_HOST=localhost
DB_USER=root
DB_PASSWORD="*****"
DB_NAME=capstone
JWT_SECRET="vijay01gopi02siree03"
FIREBASE_API_KEY="AIzaSyCTNa62yzvrlp0nOr1y3KMf9jqnxOpD-3U"
NOTIFY_EMAIL=your-email@gmail.com
NOTIFY_EMAIL_PASSWORD=your-email-password-or-app-password
```

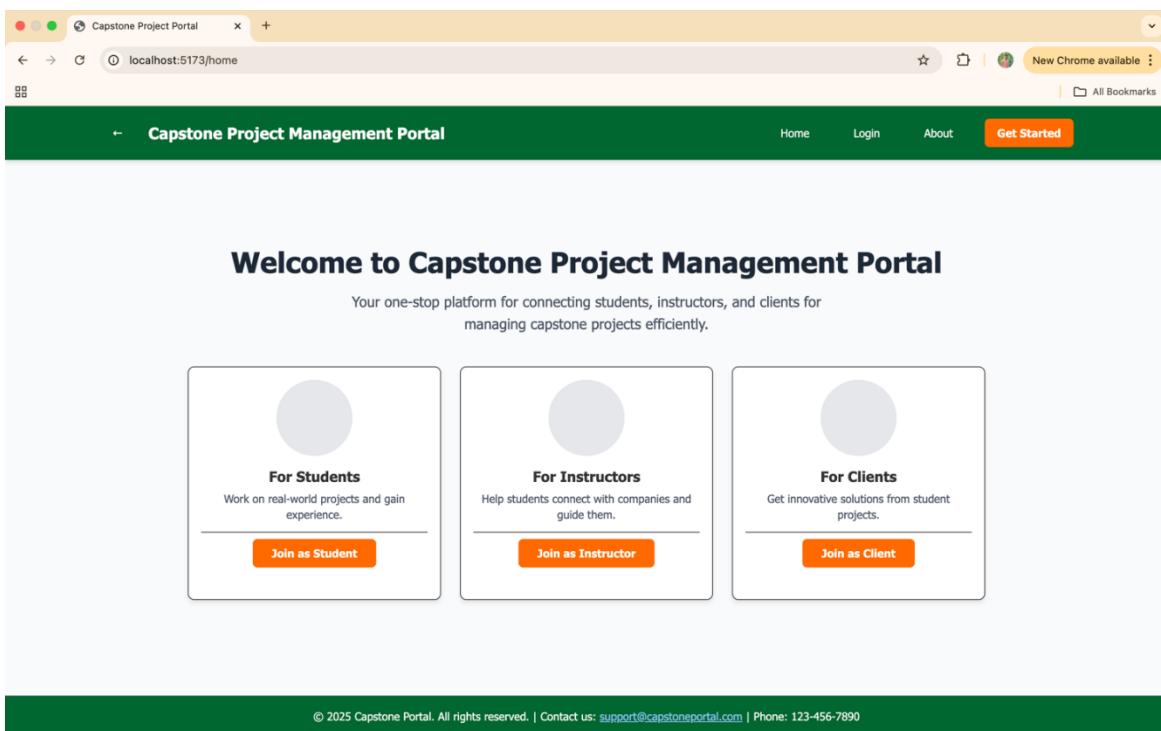
3. To run the project locally, you need to install “Node.js” on your machine.
4. Open Terminal, and change the directory to this project directory.
5. Now, go to the front-end folder in the terminal which you have opened. And run the following commands to start the front-end of the application:
 - “npm install”
 - “npm run dev”
6. Then, open another terminal and navigate to the back-end folder in the project directory. And run the following commands to start the back-end of the application:
 - “npm install”
 - “npm start”
7. Finally, the application is running locally and can be accessed using the following URL:
 - <http://localhost:5173/home>

III. How to use the application

- This is the landing page of the application.



- This is the Home Page of this application



- Meet the People Behind the Work

The screenshot shows a web browser window for the 'Capstone Project Management Portal' at localhost:5173/about. The page features a dark green header with the portal's name and navigation links for Home, Login, About, and Get Started. Below the header is a section titled 'Meet Our Team' containing three team member profiles in boxes:

- Sree Rama Vijay Tummalapalli** (Full Stack Developer) - Bio: Sree Ran., Vijay Tummalapalli. GitHub | LinkedIn
- Sireesha Kuchimanchi** (Frontend Developer) - Bio: Sireesha Kuchimanchi. GitHub | LinkedIn
- GopiKrishna Nathani** (Backend Developer) - Bio: GopiKrishna Nathani. GitHub | LinkedIn

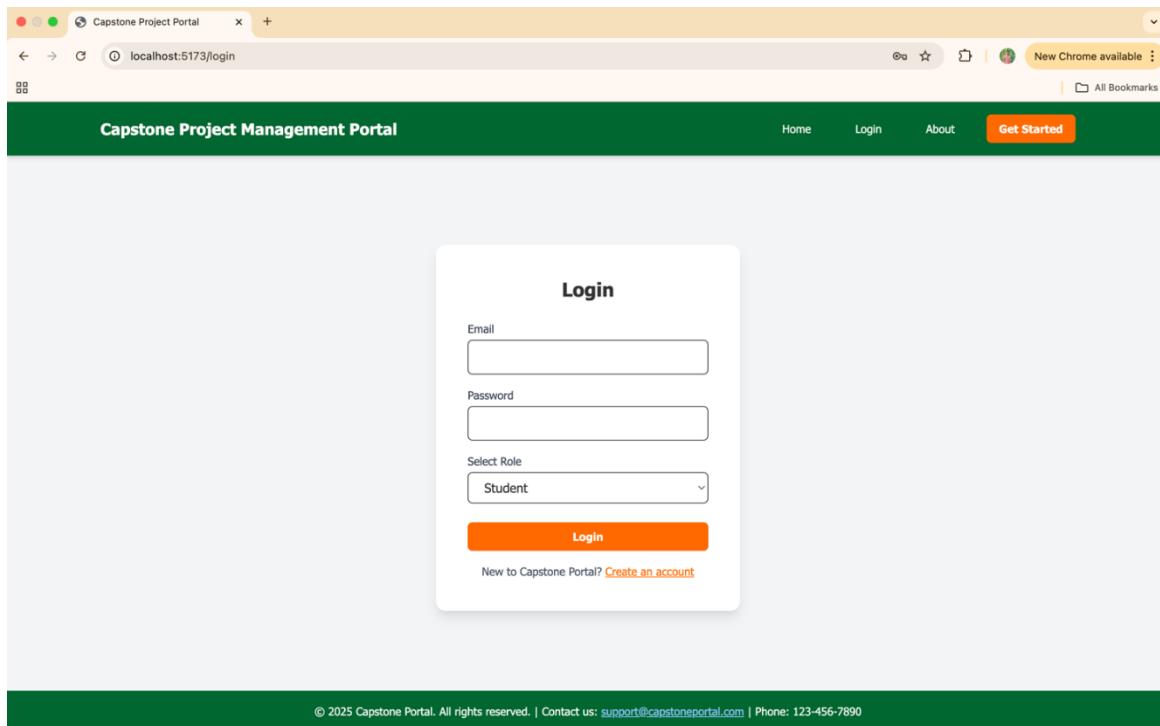
At the bottom of the page is a footer bar with the text: © 2025 Capstone Portal. All rights reserved. | Contact us: support@capstoneportal.com | Phone: 123-456-7890

- Join the Capstone Project Management Portal to get started with managing, reviewing, or proposing innovative student projects.

The screenshot shows a web browser window for the 'Capstone Project Management Portal' at localhost:5173/signup. The page has a dark green header with the portal's name and navigation links. The main content is a 'Create an Account' form with fields for Full Name, Email, Password, and Select Role (with 'Student' selected). There is a 'Sign Up' button and a link for existing users to 'Login'.

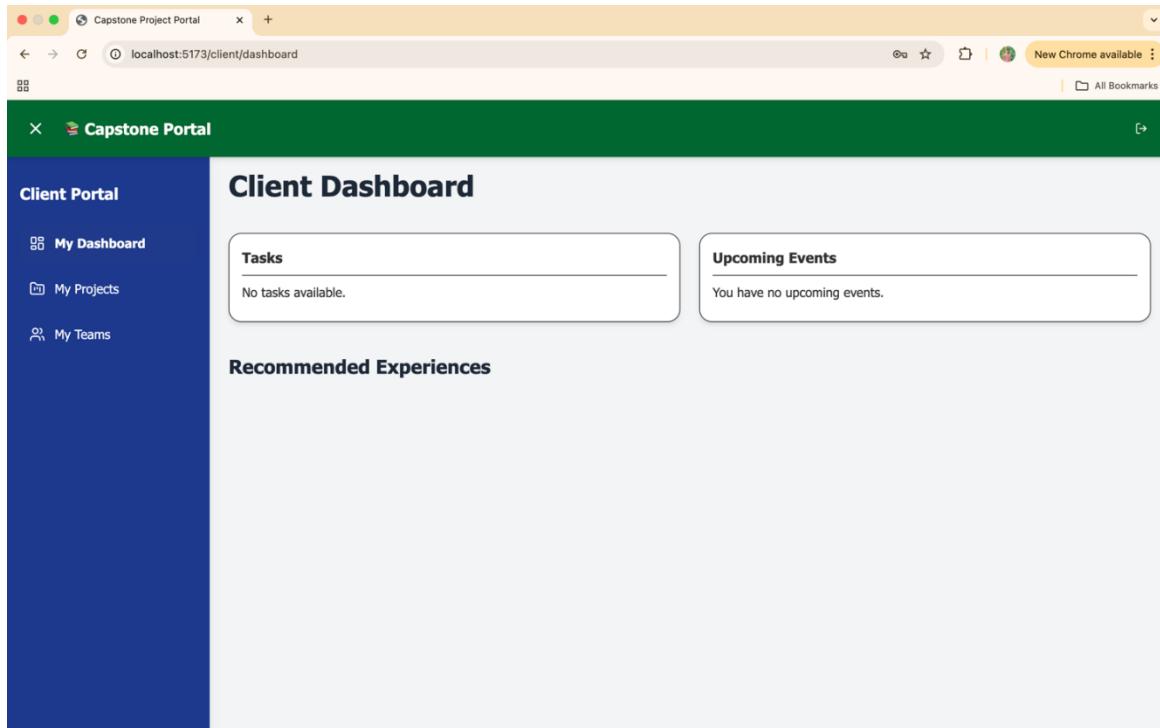
At the bottom of the page is a footer bar with the text: © 2025 Capstone Portal. All rights reserved. | Contact us: support@capstoneportal.com | Phone: 123-456-7890

- Login to the website with respective roles – Instructor, Student and Client.



Client DashBoard:

- Welcome to your project hub—track progress, manage teams, and stay informed about upcoming activities.



- Submit new project ideas and monitor their approval status—all in one place.

The screenshot shows the 'My Projects' section of the Capstone Portal. On the left, a sidebar titled 'Client Portal' includes links for 'My Dashboard', 'My Projects' (which is selected and highlighted in blue), and 'My Teams'. The main area is titled 'My Projects' with the subtitle 'Manage your proposals and track progress'. It features three colored boxes: a green 'Approved Projects' box containing an example proposal; a red 'Rejected Projects' box containing an example proposal with a rejection feedback message; and a yellow 'Pending Projects' box containing an example proposal. A blue button at the top right says '+ Create Project'.

- Provide detailed information about your proposed project to help us match it with the right student team.

The screenshot shows the 'Create New Project' page from the Capstone Project Portal. The URL in the browser bar is 'localhost:5173/create-project'. The page has a 'Client Portal' sidebar with 'My Dashboard', 'My Projects', and 'My Teams' options. The main content area is titled 'Create New Project' and contains two sections: 'Project Details' and 'Project Parameters'. The 'Project Details' section includes fields for 'Title' (a text input), 'Description' (a text area), 'Required Skills' (a text input with placeholder 'e.g., React, Node.js, Python'), and 'Expected Outcomes' (a text area). The 'Project Parameters' section includes dropdown menus for 'Flexibility' ('Select flexibility') and 'Difficulty' ('Select difficulty'), and text inputs for 'Total Hours' and 'Team Size'.

The screenshot shows a web browser window for the 'Capstone Project Portal' at localhost:5173/create-project. The interface has a dark blue sidebar on the left labeled 'Client Portal' with options: 'My Dashboard', 'My Projects', and 'My Teams'. The main content area is titled 'Project Parameters' and includes fields for 'Flexibility' (dropdown: 'Select flexibility'), 'Difficulty' (dropdown: 'Select difficulty'), 'Total Hours' (input field), 'Team Size' (input field), 'Main Category' (input field), 'Sub Categories' (input field with placeholder 'e.g., Web Development, Mobile App'), 'Start Date' (input field), 'End Date' (input field), 'Select Instructors (Optional)' (input field with placeholder 'WEFWF (No department) VijayInstructor (No department)'), and a note 'Hold Ctrl/Cmd to select multiple instructors. If none selected, all instructors will be notified.' At the bottom are 'Cancel' and 'Create Project' buttons.

- View your assigned teams and collaborate with members to bring your project to life.

The screenshot shows a web browser window for the 'Capstone Project Portal' at localhost:5173/client/teams. The sidebar is identical to the previous screenshot. The main content area is titled 'Team Assignments' and displays a message: 'No Teams' with a small icon. Below it, a note says 'You are not part of any teams yet. Join a project or collaborate to see your team details here.'

Student Dashboard:

- Stay on top of your capstone journey—explore projects, submit preferences, and track your assignment status.

The screenshot shows the 'Capstone Project Portal' dashboard. The left sidebar has a dark blue background with the 'Student Portal' logo and four menu items: 'Dashboard' (selected), 'View Projects', 'Provide Preferences', and 'Assigned Project'. The main content area has a white background with a green header bar. The header bar contains the portal logo and the URL 'localhost:5173/student/dashboard'. The main title 'Welcome to Your Student Dashboard' is centered at the top. Below it is a box titled 'Upcoming Task' with the sub-section 'Project Preference Submission' and a note: 'Don't forget to submit your top 3 project preferences before the deadline.' A 'View Projects' button is at the bottom of this box. To the right are three boxes: 'Preferences' (Projects you've selected, with a 'View Preferences' button), 'Assigned Project' (See your allocated capstone, with a 'View Assigned Project' button), and 'Explore' (Check available projects, with a 'Browse Projects' button).

- Browse available capstone projects and find the ones that best match your interests and skills.

The screenshot shows the 'Explore Projects' page. The left sidebar has a dark blue background with the 'Student Portal' logo and four menu items: 'Dashboard' (selected), 'View Projects' (selected), 'Provide Preferences', and 'Assigned Project'. The main content area has a white background with a green header bar. The header bar contains the portal logo and the URL 'localhost:5173/student/view-projects'. The main title 'Explore Projects' is centered at the top. Below it are three project cards. The first card is for 'EWF' (Client: WEVWE) with 'Skills Required: Wfw'. The second card is for 'wevww' (Client: wevwwwt) with 'Skills Required: vvv'. The third card is for 'ytu' (Client: gerbb). At the bottom of the page, there is a small blue link labeled 'Next 1'.

- Rank your top project choices to help us assign you to the most suitable capstone opportunity.

The screenshot shows the 'Capstone Project Portal' interface. On the left, a dark blue sidebar titled 'Student Portal' contains links for Dashboard, View Projects, Provide Preferences (which is selected), and Assigned Project. The main content area has a green header 'Your Preferred Projects'. It features two sections: 'Your Selected Projects' and 'Available Projects'. In 'Your Selected Projects', there are two items: 'EWF' (Client: rwwg) and 'test 1' (Client: vijayclient). In 'Available Projects', there are two items: 'wevww' (Client:) and 'ytu' (Client:). A green button labeled 'Save Rankings' is at the top right. A success message at the bottom right says 'Added test 1 to your preferences'.

- Once your project is assigned, you'll see the details here.

The screenshot shows the 'Capstone Project Portal' interface. The left sidebar is identical to the previous screenshot. The main content area has a green header 'Assigned Project Details'. It displays a message: 'No Assigned Project' followed by the text 'Your instructor is assigning projects or you have not yet been assigned. If you haven't provided your preferences, please do so.' A success message at the bottom right says 'Added test 1 to your preferences'.

Instructor Dashboard:

- Oversee student progress, manage project evaluations, and stay updated on key deadlines—all from one centralized dashboard.

The screenshot shows the 'Instructor Dashboard' page of the Capstone Project Portal. On the left, a sidebar menu lists 'Dashboard', 'Students', 'Projects', 'Groups', 'Evaluations', 'Profile Settings', and 'Logout'. The main area features a header 'Instructor Dashboard' with a search bar and buttons for 'Filter' and 'Schedule Evaluation'. Below the header are four summary cards: 'Total Students' (24), 'Active Projects' (12), 'Pending Evaluations' (8), and 'Upcoming Deadlines' (5). The 'Recent Students' section displays four entries: John Doe (E-commerce Platform, In Progress, 2 days ago), Jane Smith (Mobile App, Submitted, 3 days ago), Alex Johnson (Data Analytics Dashboard, Under Review, 5 days ago), and Sarah Williams (AI Chatbot, Submitted, 1 week ago). The 'Upcoming Evaluations' section lists three teams: Team Alpha (High priority, AI Chatbot, Due tomorrow), Team Beta (Medium priority, IoT Sensor Network, Due in 3 days), and Team Gamma (Low priority, Blockchain Wallet, Due next week).

The screenshot shows the 'Instructor Dashboard' page of the Capstone Project Portal. The sidebar menu is identical to the previous screenshot. The main area displays a grid of recent student projects: Jane Smith (Mobile App, Submitted, 3 days ago), Alex Johnson (Data Analytics Dashboard, Under Review, 5 days ago), and Sarah Williams (AI Chatbot, Submitted, 1 week ago). To the right of the projects is a 'Team' section showing Team Beta (Medium priority, IoT Sensor Network, Due in 3 days) and Team Gamma (Low priority, Blockchain Wallet, Due next week). Below the projects is an 'Announcements' section with three entries: 'Mid-term evaluation deadline' (All project evaluations must be completed by Friday, 2 days ago), 'New student onboarding' (5 new students will join next week, 3 days ago), and 'System maintenance' (Platform will be down for maintenance on Sunday, 5 days ago).

- View and manage all registered students, track their project assignments, and monitor progress at a glance.

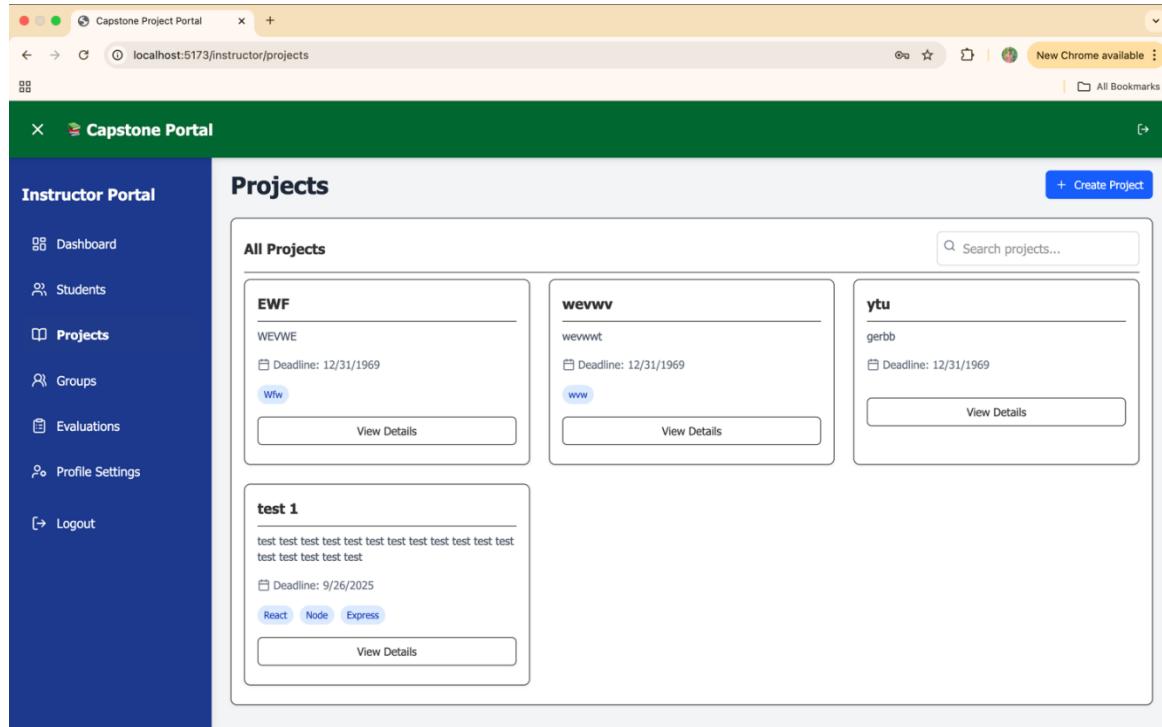
The screenshot shows the 'Students' page of the Capstone Project Portal. The left sidebar has a dark blue background with white icons and text for Dashboard, Students, Projects, Groups, Evaluations, Profile Settings, and Logout. The main content area has a green header bar with the title 'Students'. Below it is a table titled 'All Students' with columns: NAME, EMAIL, PROJECT, STATUS, JOIN DATE, and ACTIONS. The table lists nine student entries, each with a three-dot menu icon in the ACTIONS column. A search bar at the top right of the table says 'Search students...'. A blue button at the top right of the main content area says '+ Add Student'.

| NAME | EMAIL | PROJECT | STATUS | JOIN DATE | ACTIONS |
|--------------|-------------------------|--------------|-------------|-----------|---------|
| sravani | sravani@gmail.com | Not Assigned | Not Started | 5/8/2025 | ⋮ |
| student 2 | vijaystudent2@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| student 1 | vijaystudent1@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| vijaystudent | vijaystudent@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| ccv | stf@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| qc3rr | ste@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| c3rv | std@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| ec3 | stc@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| crc | stb@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |
| qrc3r3 | sta@gmail.com | Not Assigned | Not Started | 5/6/2025 | ⋮ |

- Enter the student's details below to create their account and grant access to the Capstone Portal.

The screenshot shows the 'Add New Student' form. The left sidebar is identical to the previous screenshot. The main content area has a green header bar with the title 'Add New Student'. Below it is a form titled 'Student Information' with fields for Full Name, Email, and Password. A note at the bottom of the form says 'Password must be at least 6 characters long'. At the bottom right are 'Cancel' and 'Add Student' buttons.

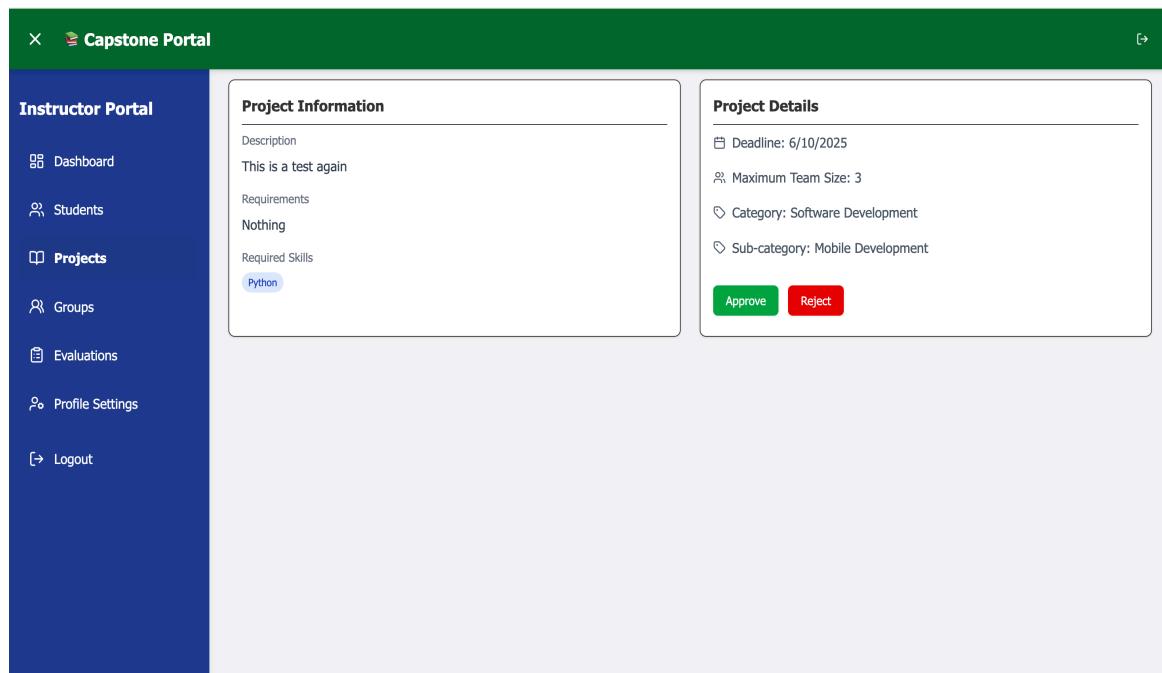
- Browse all client submitted capstone projects, review their details, and manage assignments efficiently.



The screenshot shows a web browser window titled "Capstone Project Portal" at "localhost:5173/instructor/projects". The left sidebar, titled "Instructor Portal", includes links for Dashboard, Students, Projects (which is selected), Groups, Evaluations, Profile Settings, and Logout. The main content area is titled "Projects" and "All Projects". It displays four project cards:

- EWF**: Deadline: 12/31/1969, View Details button
- wewvv**: Deadline: 12/31/1969, View Details button
- ytu**: Deadline: 12/31/1969, View Details button
- test 1**: Deadline: 9/26/2025, React, Node, Express tags, View Details button

- Approve or reject projects by clicking on them.



The screenshot shows a detailed view of a project within the "Instructor Portal". The left sidebar is identical to the previous screenshot. The main content area is divided into two sections: "Project Information" and "Project Details".

Project Information includes:

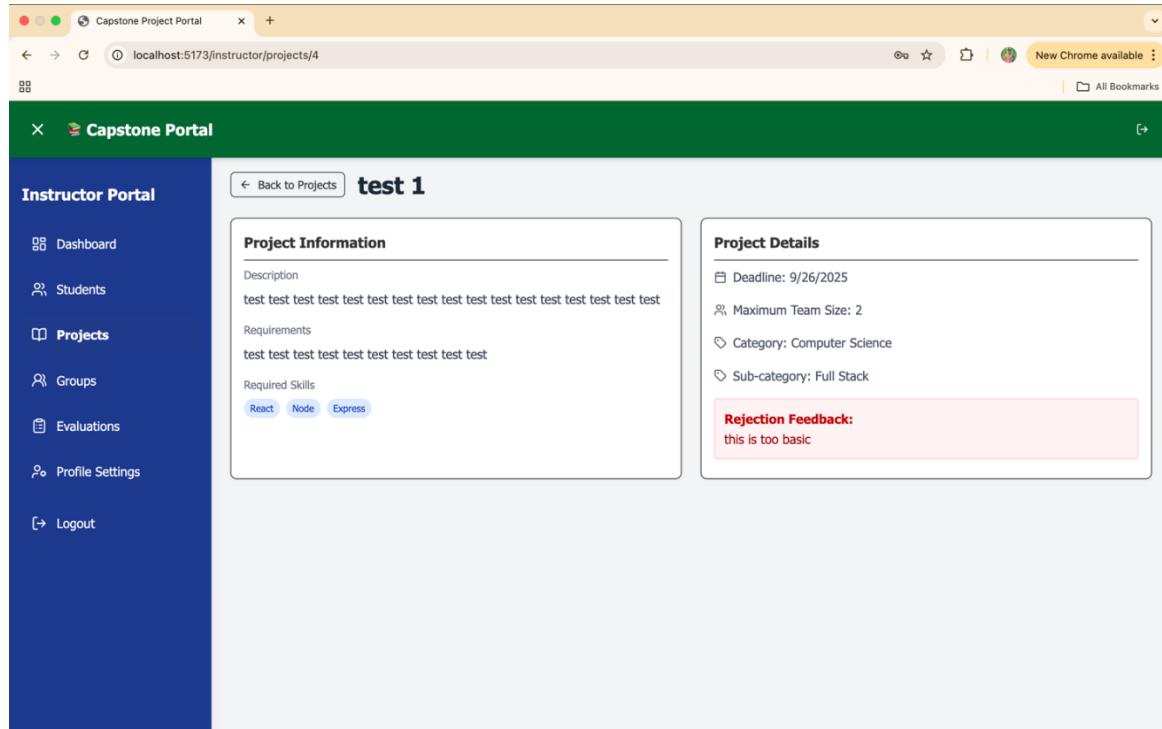
- Description: This is a test again
- Requirements: Nothing
- Required Skills: Python

Project Details includes:

- Deadline: 6/10/2025
- Maximum Team Size: 3
- Category: Software Development
- Sub-category: Mobile Development

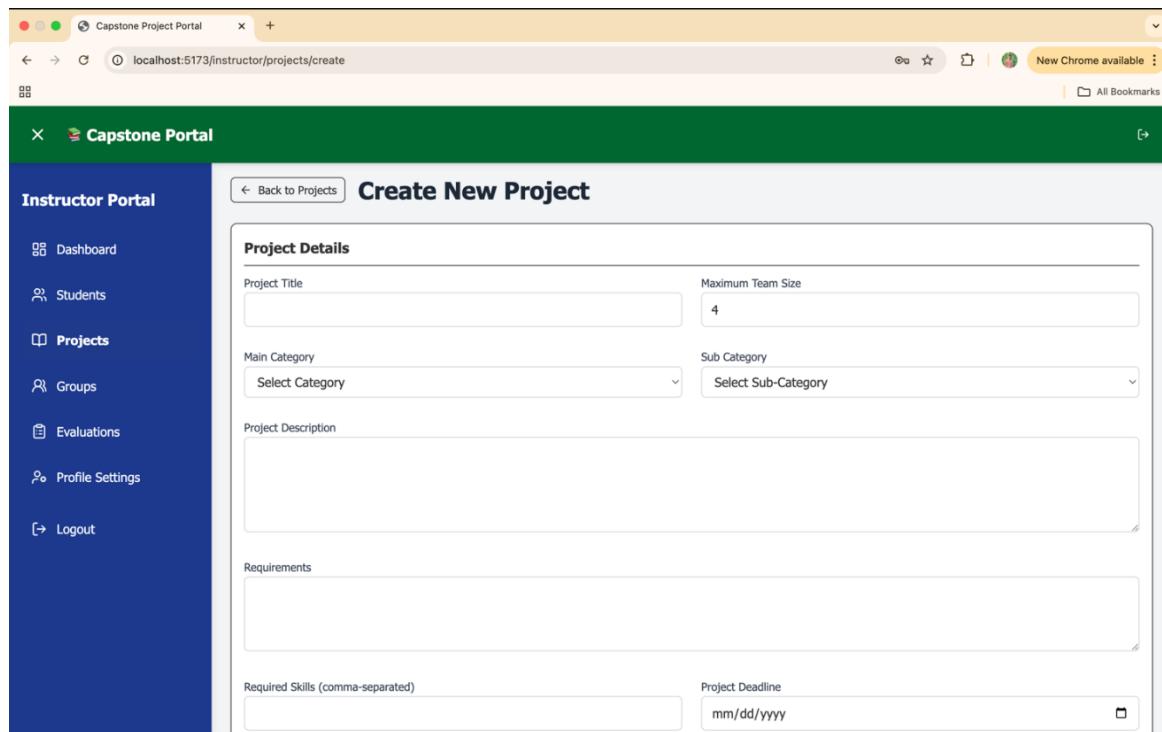
At the bottom are "Approve" and "Reject" buttons.

- If rejected, provide a feedback to let the client revise and improve his project proposal for resubmission.



The screenshot shows a web browser window for the "Capstone Project Portal" at localhost:5173/instructor/projects/4. The page title is "test 1". On the left, a dark blue sidebar menu titled "Instructor Portal" includes "Dashboard", "Students", "Projects" (selected), "Groups", "Evaluations", "Profile Settings", and "Logout". The main content area has two sections: "Project Information" and "Project Details". Under "Project Information", there are fields for "Description" (containing placeholder text) and "Requirements" (containing placeholder text). Under "Required Skills", there are three buttons: "React", "Node", and "Express". Under "Project Details", there are fields for "Deadline" (set to 9/26/2025), "Maximum Team Size" (set to 2), "Category" (Computer Science), and "Sub-category" (Full Stack). A red-bordered box labeled "Rejection Feedback:" contains the message "this is too basic".

- Instructor can also submit a project by providing detailed information about the capstone project to help students understand expectations and align their interests.



The screenshot shows a web browser window for the "Capstone Project Portal" at localhost:5173/instructor/projects/create. The page title is "Create New Project". The left sidebar is identical to the previous screenshot. The main content area is titled "Create New Project" and contains a "Project Details" form. The form includes fields for "Project Title" (empty), "Maximum Team Size" (set to 4), "Main Category" (dropdown menu "Select Category"), "Sub Category" (dropdown menu "Select Sub-Category"), "Project Description" (empty text area), "Requirements" (empty text area), "Required Skills (comma-separated)" (empty input field), and "Project Deadline" (empty input field with a calendar icon).

- Manage or generate student groups automatically based on project preferences.

Project Groups

Automated Group Formation
Create groups automatically based on student preferences

No Groups Yet
Start by creating a new project group for students

Create First Group

- Automatically form student groups based on project preferences, ensuring fair and optimized team assignments.

Automated Group Formation

Create Groups Automatically
Form groups based on student preferences with just a few clicks.

Group Size: 3

Preview Groups CREATE GROUPS NOW

| Statistics | Preview | Manual Formation |
|-----------------------------|-------------------------------|--------------------------------|
| Total Students 12 | With Preferences 10 | Available Projects 2 |

Most Popular Projects
Based on weighted preference scores (1st choice = 3 points, 2nd = 2 points, 3rd = 1 point)

| PROJECT | 1ST CHOICE | 2ND CHOICE | 3RD CHOICE | SCORE |
|---------|------------|------------|------------|-------|
| | | | | |

The screenshot shows the 'Capstone Project Portal' interface. On the left, a dark blue sidebar menu titled 'Instructor Portal' includes links for Dashboard, Students, Projects, Groups (which is the active tab), Evaluations, Profile Settings, and Logout. The main content area has tabs for Statistics, Preview (which is selected), and Manual Formation. A green button labeled 'Create These Groups Now' is visible. Below it, four summary boxes show: Total Groups (4), Avg. Group Size (3.0), Satisfaction (77.8%), and 1st Choice (8, 66.7%). A section titled 'Group Preview' shows how groups would be formed with a group size of 3. It lists four students: ec3, student 2, qc3rr, and another unnamed student. Each student is associated with a '1st Choice' preference. At the bottom of this preview section, there is a heading 'EWF'.

- Manually assign students to a group and link them to a specific project.

The screenshot shows the 'Create New Group' page. The left sidebar is identical to the previous screenshot. The main area has a title 'Create New Group' with a 'Back to Groups' link. A 'Group Details' form contains fields for 'Group Name' (with a placeholder 'Group Name') and 'Project' (a dropdown menu with 'Select Project'). Below these, a 'Select Students' section lists several student email addresses: sravani (sravani@gmail.com), student 2 (vijaystudent2@gmail.com), student 1 (vijaystudent1@gmail.com), vijaystudent (vijaystudent@gmail.com), ccv (stt@gmail.com), qc3rr (ste@gmail.com), c3rv (std@gmail.com), ec3 (stc@gmail.com), and crc (stb@gmail.com). A note at the bottom says 'Hold Ctrl/Cmd to select multiple students'. At the bottom right are 'Cancel' and 'Create Group' buttons.

- View, schedule, and manage project evaluations with ease. Track deadlines, status, and priority levels for each team.

- Set up an evaluation for a student team by selecting a date, time, priority level, and any relevant notes.

- Update your personal information and manage notification preferences to stay informed about key activities.

The screenshot shows a web browser window for the 'Capstone Project Portal'. The title bar says 'Capstone Project Portal' and the address bar shows 'localhost:5173/instructor/profile'. The page has a dark blue sidebar on the left with the 'Instructor Portal' header and a list of options: Dashboard, Students, Projects, Groups, Evaluations, Profile Settings (which is selected and highlighted in blue), and Logout. The main content area is titled 'Profile Settings' and contains two sections: 'Personal Information' and 'Notification Preferences'. In the 'Personal Information' section, there are four input fields: 'Full Name' (containing 'revanth'), 'Email' (containing 'revanth@gmail.com'), 'Department' (empty), and 'Contact Number' (empty). In the 'Notification Preferences' section, there are three checkboxes: 'Receive email notifications' (unchecked), 'Group creation alerts' (unchecked), and 'Evaluation reminders' (unchecked). A blue 'Save Changes' button is located at the bottom right of the form.