

# Express.js Exam – Project Manager

## 1. Exam rules:

- You have 6 hours – **from 09:00 to 15:00**
- When you are ready, delete the **node\_modules** folder, make sure all dependencies are listed in the **package.json** file and submit your archived project at: [SoftUni Judge](#)
- You are required to **edit** the **provided HTML** to make it functional and **may extend** it as needed.
- Use **Express.js** as a back-end framework
- Use **MongoDB** as a database with **mongoose**
- You can use whatever **view engine** you like (Handlebars, EJS, Pug etc....)

## 2. Application Overview

Get familiar with the provided **HTML & CSS** and create an application for **managing projects** and the **teams** in them. The **user** should be able to **view projects and teams**, and to **leave a team**. The **admin** should be able to **distribute users into teams** and **teams into projects**. He should also be able to **create teams and projects**.

**Note: The points described in each of the sections include all the functionalities that the given task should cover!**

## 3. Functional Requirements

The **Functionality Requirements** describe the functionality that the **Application** must support.

The **application** should provide **Guest** (not logged in) users with the functionality to **login**, **register** and **view** the **Home** page.

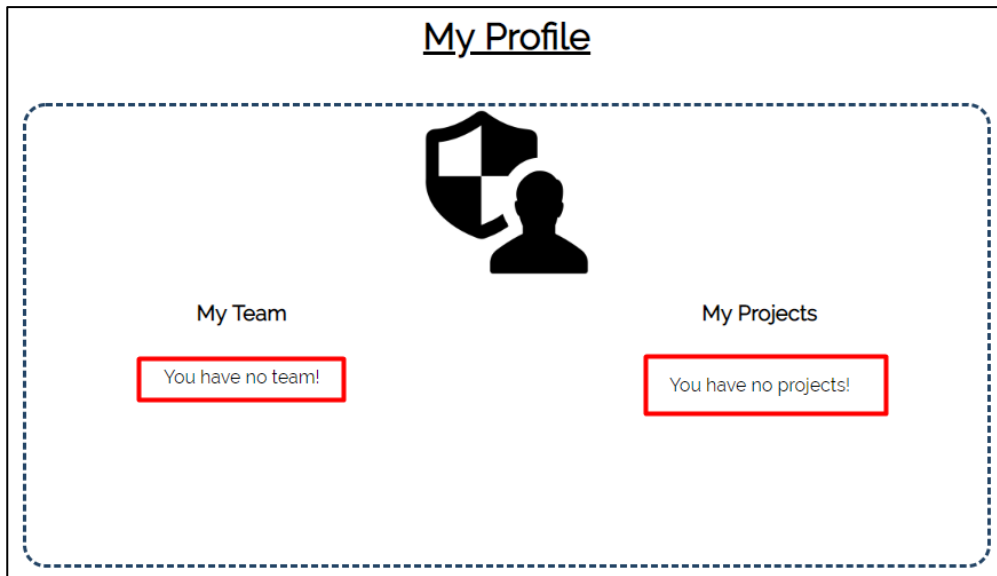
The **application** should provide **Users** (logged in) with the functionality to **logout**, and **view all teams**, **view all projects**, **view their profile**, **leave a team**

The **application** should provide **Admins** (logged in) with the functionality to **logout**, and **distribute teams**, **distribute projects**, **create teams**, **create projects**, **view their profile**.

The admin should be **seeded with the starting of the application**. A **registration of a new admin** user should **not be possible**!

### Users

The user should be able to **view all the teams**, **all the projects** and **his own profile**. In his profile page if he does not have teams or projects or both, you should display the following:



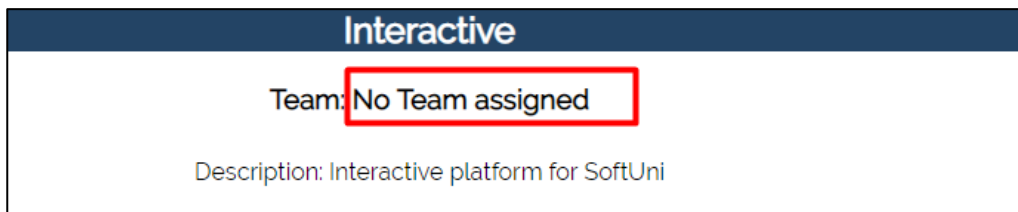
The user should **not be able to edit or delete teams and projects**

When the user **leaves a team**, the **team should be removed** from **his teams list**, and the **user should be removed** from the **members list of the team**.

## Teams and Projects

In the sections Projects and Teams, the projects and the teams should be listed as shown on the pictures below.

If there is a project without a team display the following:



If a team does not have a project, display the following:



If a team has no members, display the following:



## Admin

The admin **should not be** able to view the teams and projects like a user does. He has to be able to **distribute** users into teams and teams into projects.

## 4. Database Models (15 pts)

The **Database** of the **Project Manager** application needs to support **3 entities**:

### User (5 pts)

- Username - string (required), unique
- Password - string (required)
- First Name - string (required)
- Last Name - string (required)
- Teams - a collection of Teams
- Profile Picture - imageUrl string and choose a default
- Roles - array with roles ("User", "Admin")

### Team (5 pts)

- Name - string (required), unique
- Projects - a collection of Projects
- Members - a collection of Users

### Project (5 pts)

- Name - string (required), unique
- Description - string (required), max length of 50 symbols
- Team - a single Team

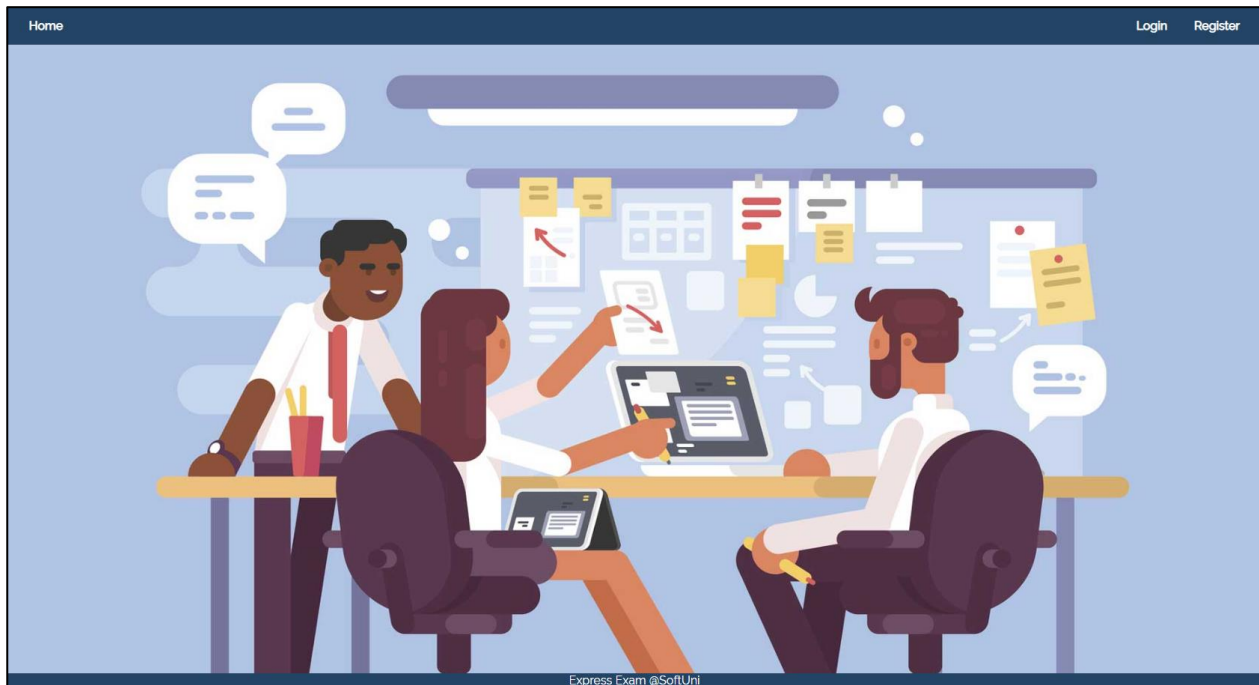
Implement the entities with the **correct datatypes**.

## 5. Application Pages (75 pts)

### Guest Pages (10 pts)

These are the **pages** and **functionalities**, accessible by **Guests** (logged out users).

## Index Page (logged out user)



## Login Page (logged out user) (5 pts)

The image shows the login page of a web application for a logged-out user. At the top, there is a dark blue navigation bar with the text 'Home' on the left and 'Login' and 'Register' on the right. The main content area is white and contains a centered login form. The form has the title 'Login' in a bold, dark blue font. Below the title, there are two input fields: 'Username:' and 'Password:'. Each field has a corresponding text input box. Below the password field, there is a dark blue button with the text 'Login' in white. At the bottom of the page, the text 'Express Exam @SoftUni' is visible.

## Register Page (logged out user) (5 pts)

The screenshot shows a web application interface for a registration page. At the top, there is a dark blue header bar with the text "Home" on the left and "Login Register" on the right. The main content area has a white background with the title "Register" centered at the top. Below the title, there are five input fields stacked vertically, each with a label: "Username:", "Password:", "First name:", "Last name:", and "Profile Picture:". Each label is followed by a white input box. Below these fields is a dark blue button with the text "Register" in white. At the bottom of the page, there is a dark blue footer bar with the text "Express Exam @SoftUni" centered.

## Admin Pages (30 pts)

These are the **templates** and **functionalities**, accessible by **Admins**

## Admin Create Team (logged in admin) (5 pts)

The screenshot shows a web application interface for an admin's "Create Team" page. At the top, there is a dark blue header bar with the text "Home Projects Teams Create Team Create Project" on the left and "Welcome, Admin! Profile Logout" on the right. The main content area has a white background with the title "Create Team" centered at the top. Below the title, there is a single input field with the label "Team Name" above it. Below the input field is a dark blue button with the text "Create" in white. At the bottom of the page, there is a dark blue footer bar with the text "Express Exam @SoftUni" centered.

## Admin Create Project (logged in admin) (5 pts)

The screenshot shows the 'Create Project' form. At the top, there is a navigation bar with links: Home, Projects, Teams, Create Team, and Create Project. On the right side of the navigation bar, it says 'Welcome, Admin!', 'Profile', and 'Logout'. The main heading is 'Create Project'. Below the heading, there are two input fields: 'Project Name' and 'Project Description'. Below these fields is a 'Create' button. At the bottom of the page, there is a footer that says 'Express Exam @SoftUni'.

## Admin Projects (logged in Admin) (10 pts)

The screenshot shows the 'Projects' form. At the top, there is a navigation bar with links: Home, Projects, Teams, Create Team, and Create Project. On the right side of the navigation bar, it says 'Welcome, Admin!', 'Profile', and 'Logout'. The main heading is 'Projects'. Below the heading, there is a section titled 'Manage Teams'. Under this section, there are two dropdown menus: 'Team' and 'Project'. The 'Team' dropdown menu has 'Developers' selected. The 'Project' dropdown menu has 'Interactive' selected. Below these dropdowns is a 'Distribute' button. At the bottom of the page, there is a footer that says 'Express Exam @SoftUni'.

The dropdown for the **teams** should include **all** the teams.

The dropdown for the **projects** should only contain projects that **do not yet** have a team assigned to them.

## Admin Teams (logged in Admin) (10 pts)

[Home](#) [Projects](#) [Teams](#) [Create Team](#) [Create Project](#) Welcome, Admin! [Profile](#) [Logout](#)

### Teams

Manage Users

User

Admin

Team

Developers

Distribute

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In the **users list** include **all users** in the database. Each **user** can be in **many teams**. He cannot however be added in the **same team** twice.

In the **teams list** include **all teams** in the database.

## User Pages (35 pts)

These are the **templates** and **functionalities**, accessible by **Users** (logged in users).

## Logged In Projects (logged in user) (10 pts)

[Home](#) [Projects](#) [Teams](#) Welcome, pesho! [Profile](#) [Logout](#)

### Projects

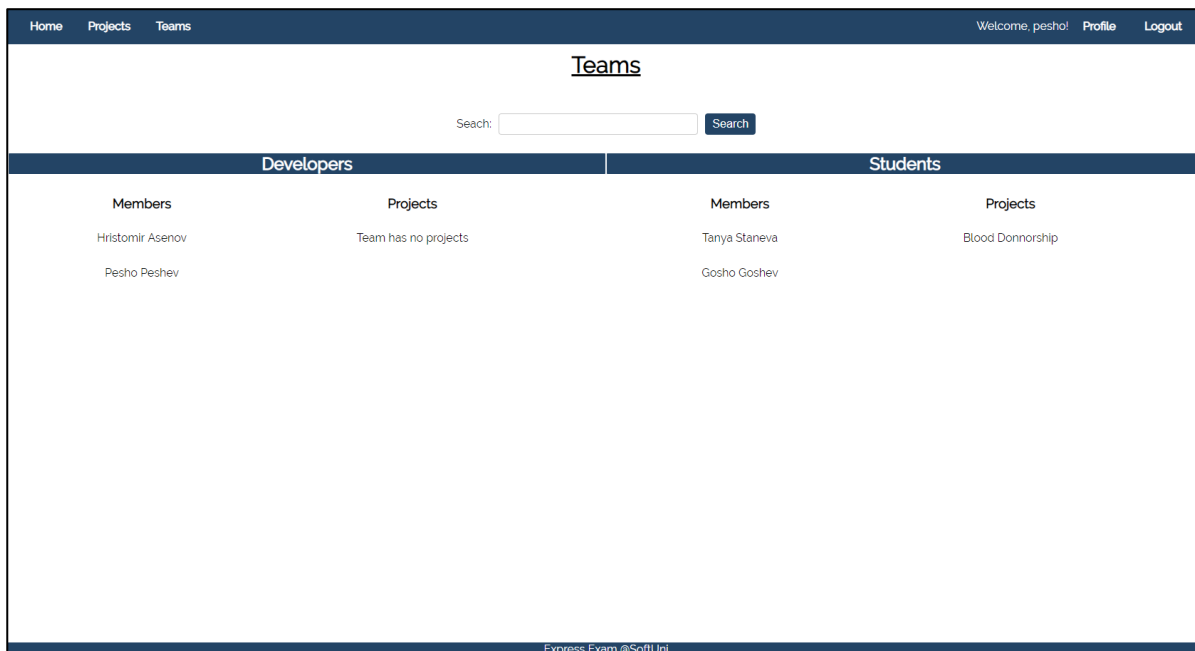
Search:  [Search](#)

Interactive	Blood Donnorship
<p>Team: No Team assigned</p> <p>Description: Interactive platform for SoftUni</p>	<p>Team: Students</p> <p>Description: Create blood donnorship application</p>

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In the Projects section you should load **all project names** and for each project load the **team name** and **description**. If there is no team assigned yet display **"No Team assigned"**.

## Logged in Teams (logged in user) (10 pts)



In the Team section you should load all team names and for each team load all projects and members

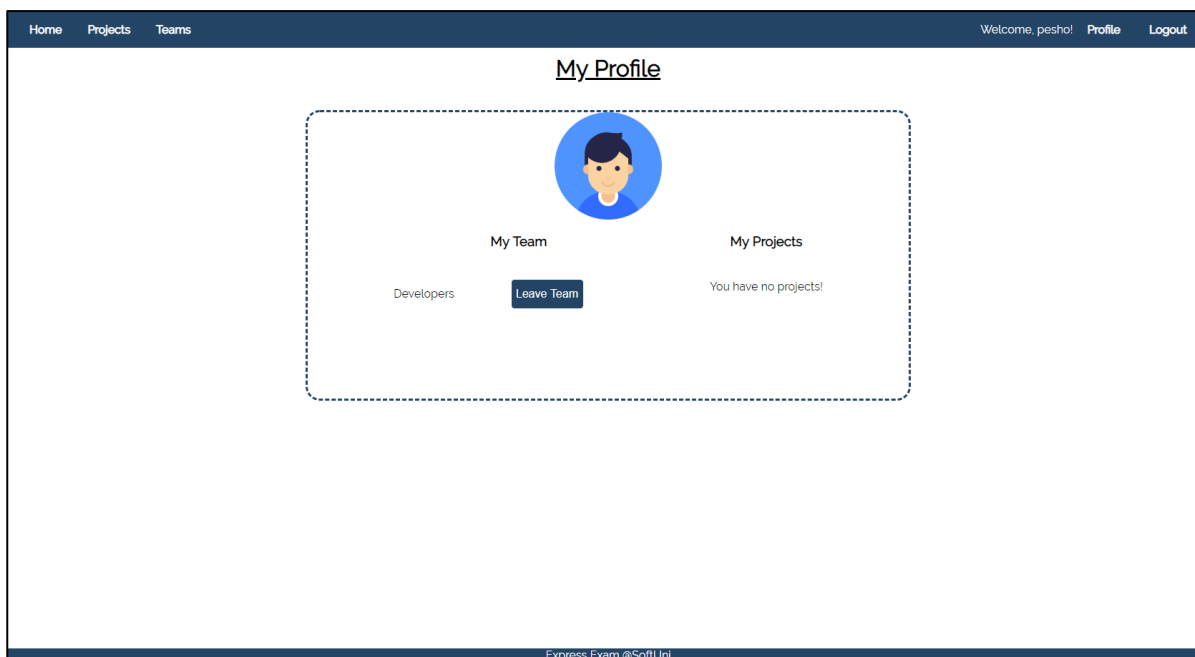
In the **members section** display the **first and last name of each member**.

In the **projects section** load only the project **name**.

If there are **no members** assigned to a team display "**Team has no members**" instead.

If there are **no projects** assigned to a team display "**Team has no projects**" instead.

## Logged in Profile (logged in user) (15 pts)



In **My Teams** section display the **name of each team that the user is part of**. In case of **no teams** display "**You have no teams**".

In **My Projects** display the **names of all projects that the users team/teams is/are assigned to**.



The User is able to **leave** a team if he wants to do so. If a User leaves a team it is **removed** from his **teams list** and the User is **removed** from the **members** list of a team.

## 6. Security Requirements (10 pts)

The **Security Requirements** are mainly **access** requirements. Configurations about which users can access specific functionalities and pages.

- **Guest** (not logged in) users can access **Home** page and functionality.
- **Guest** (not logged in) users can access **Login** page and functionality.
- **Guest** (not logged in) users can access **Register** page and functionality.
- **Users** (logged in) can access **Projects** page and functionality.
- **Users** (logged in) can access **Teams** page and functionality.
- **Users** (logged in) can access the **Profile** functionality.
- **Users** (logged in) can access **Logout** functionality.
- **Admins** (logged in) can access **Projects** (but with a different view).
- **Admins** (logged in) can access **Teams** (but with a different view).
- **Admins** (logged in) can access **Create Team** page and functionality.
- **Admins** (logged in) can access the **Create Project** page and functionality.
- **Admins** (logged in) can access the **Profile** page and functionality.
- **Admins** (logged in) can access the **Logout** page and functionality.

## 7. Bonus (10 pts)

When a **user searches in teams**, filter the **team names** that **include the searched string** (case-insensitive).

When a **user searches in projects**, filter the **project names** that **include the search string** (case-insensitive)