JS Back-End Regular Exam – Home Cooking Recipes

1. Exam Rules:

1. You have **6 hours**.
2. When you are ready, delete the **node_modules** folder, make sure all dependencies are listed in the **package.json** file and submit your archiving project.
3. You must use the provided HTML & CSS resources.
4. You may **add attributes** (such as **class** and **dataset**), but it is forbidden to **change existing** attributes (such as **class** and **id**).
5. You may **change "href"** attributes on links and add/change the **method** and **action** attributes of HTML Forms.
6. Use **Express.js** as a back-end framework.
7. Use **MongoDB** as a database with **mongoose.**
8. You can use whatever **view engine** you like (**express-handlebars**, EJS, Pug, etc.).
9. Use **bcrypt** **for hashing the password.**
10. It is **forbidden** to **use React**, **Vue**, **Angular,** etc.
11. All applications will be **examined** as follows:
    - The needed **dependencies** are installed with the command "**npm install**".
    - The application is **started** with the command "**npm run start**".
12. The examiners are **NOT** allowed to **change** anything in your code and will **NOT** use any **instruments outside** of the course scope.
13. You decide how to name your links.

IMPORTANT:

    1. THE APPLICATION MUST START FROM THE FILE "INDEX.JS" ON PORT 3000!

    2. ONLY THE LAST SUBMISSION WILL BE EVALUATED!

2. Application Overview

Get acquainted with the provided **HTML and CSS** and create an application for the **home cooking recipes**.

The visitors can **view** the **Home page, Recipes page** with available recipes. They can also **register** with a **name,** an **email** and **password**, allowing them to create their posts and to **recommend recipes they are interested in** (if the **current user** is **not** the author of the post). Authors can edit or delete their post at any time.

3. Functional Requirements
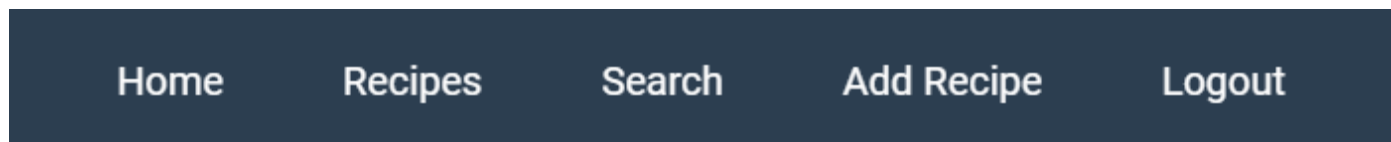
Guest (Not logged in)

Guest navigation example:
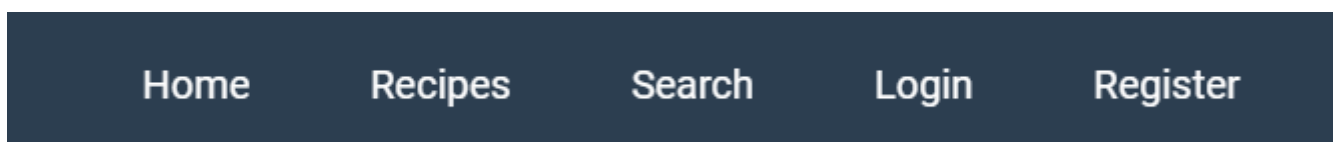
The **application** should provide **Guest** (not logged in) users with the functionality to **Login**, **Register**, and **view** the **Home** page, **Recipes** page, and **Details** page.

Users (Logged in)

User navigation example:

The **application** should provide **Users** (logged in) with the functionality to:

- **View the Home page and all other pages with logged-in navigation**
- **View Recipes page**
- **Create a new Recipe Post [Add Recipe]**
- **Access recipes details page [Details]**
- **Recommend recipes (**if the **current user** is **not** the **owner of the post)**
- **Delete or Edit the recipe post depending on the user's authentication (only for the owner of the current post)**

4. Database Models

The **Database** of the **HomeCookingRecipes** application needs to support **two entities**:

User

- **username – string (required),**
- **email - string (required),**
- **password - string (required)**

Recipes

- **title - string (required),**
- **ingredients- string (required),**
- **instructions- string (required),**
- **description - string (required),**
- **image: string (required),**
- **recommendList - a collection of Users (a reference to the User model)**
- **owner - object ID (a reference to the User model)**

Note: When a user **recommend the recipes**, their **id** is added to the **recommendList** collection. You can add more entities, if you need.

Implement the entities with the **correct data types**.

5. Application Pages

Home Page (For logged in users and logged-out users)

Visualize **the last 3 added post. Each recipe must** show information about the **recipes name, description, image** as well as a page with **details** about the **recipe.**

If there are **NO** post in the database yet, display **"There are no recipes found yet!"**

Explore Recipes button must redirect to the **Catalog Page.**

Register Page (Logged Out User)

Register a user inside the database with a **name**, an **email and password**. The **password** inside the **database** must be hashed (**use bcrypt**), and both passwords **must match**! After **successful** registration, the user should be logged and **redirected** to the **Home page**. If the user tries to submit **invalid data**, an **error message** should be displayed and the already entered **data should be kept** in the input fields (except for the passwords). The **Login here** button should be redirected to the **Login Page**.

A user who is already logged in should **NOT** be able to reach this page by typing its URL (e.g. "http://localhost:3000/register") in the browser address bar.

Home   Recipes   Search   Login   Register

Register

Name:

Email:

Password:

Repeat Password:

Register

Already have an account? Login here.

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Login Page (Logged Out User)

Logging an already registered user with the correct **email** and **password**. After successful login, you should **redirect the user to the Home page.** If the user tries to submit **invalid data**, an **error message** should be displayed and the already entered **data should be kept** in the input fields (except for the passwords). The **Register here** button should be redirected to the **Register Page**.

A user who is already logged in should **NOT** be able to reach this page by typing its URL (e.g. "http://localhost:3000/login") in the browser address bar.

Logout (Logged in user)
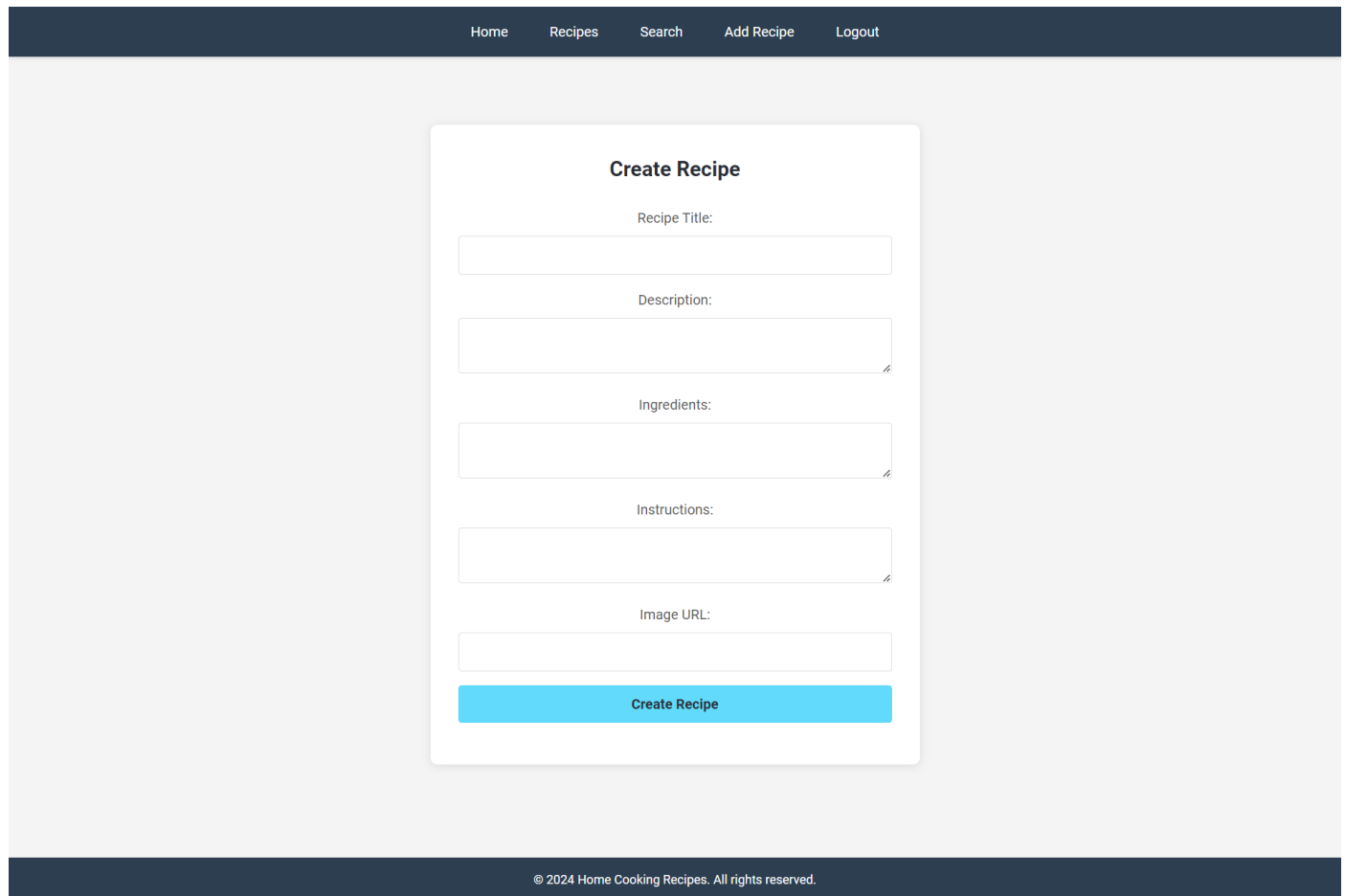
The logout action is available to **logged-in** users. Upon success, clear any session information and **redirect** the user to the **Home** page.

A user who is **NOT** logged in should **NOT** be able to reach this functionality by typing its URL (e.g. "http://localhost:3000/logout") in the browser address bar.

Create Recipes (Logged in User)

The **Create Recipes** page is available to **logged-in users**. It contains a form for adding new recipe post. Upon success, **redirect** the user to the **Recipes** page. If the user tries to submit **invalid data**, an **error message** should be displayed and the already entered **data should be kept** in the input fields.

A guest user (who is not logged in) should **NOT** be able to reach this page by typing its URL (e.g. "http://localhost:3000/recipes/create/1234") in the browser address bar.

| Home | Recipes | Search | Add Recipe | Logout |

Create Recipe

Recipe Title:

Description:

Ingredients:

Instructions:

Image URL:

Create Recipe

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Recipes (For logged in users and logged out users)

A list of all recipes.. Each recipe must be displayed with the **name,** the **description,** and the **image**, and a button for **details** about the **specific post**. As in the picture below:

The [**Details**] button should be a link to the **details page** for the current recipe post.

If there are **NO** post in the database yet, display **"There are no recipes found yet!"**

Recipe Catalog

There are no recipes found yet!

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Details Page (For logged in users and logged out users)

All users should be able **to see the details about the recipes**. Clicking the **Details button** on the post card should display the details page. If the currently registered user **is the creator** of the post, the **Edit** and **Delete** buttons should be displayed. Otherwise, they **should not be available**.

Information about the recipes:

- **Title**
- **Description**
- **Ingredients**
- **Instructions**
- **Recommend**
- **Buttons** (Depending on the status of the currently logged in user)

Details Page (Logged out users)

If the user has not **logged in**, **no buttons** should be displayed.

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Details Page (Logged in user and creator of the current post)

If the **currently logged-in** user is the **owner** (the user who **created the recipe post**), he should see the **[Delete]** and **[Edit]** buttons.

Details Page (Logged in user who has not recommend recipe)

If the currently logged-in user is **not the owner** (a user who is **not** the creator of this recipe post) and **he has not recommend the post**, he should see a **Recommend** button. Each **user who is NOT the owner of the current post** must be able to click on the **[Recommend]** button and **recommend current recipe**. If **successful**, redirect the user to the **current recipe post details page**.

A user who is owner of the recipe should **NOT** be able to reach this functionality by typing its URL (e.g. "http://localhost:3000/recipes/recommend/1234") in the browser address bar.

Details Page (Logged in user already recommend recipe post)

If the currently logged in user **is not the owner** and has **already recommend the recipe post**, he should see **[You've already recommended this recipe!]** and **People Who Recommend** must increase by one.

Home   Recipes   Search   Add Recipe   Logout

Spaghetti Carbonara

A classic Italian pasta dish made with eggs, cheese, pancetta, and pepper.

Ingredients:

200g spaghetti / 100g pancetta / 2 large eggs / 50g pecorino cheese / 50g parmesan / Freshly ground black pepper / Salt / 2 cloves of garlic / 50g unsalted butter

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Instructions:

Put a large saucepan of water on to boil. Finely chop the pancetta, having first removed any rind. Finely grate both cheeses and mix them together. Beat the eggs in a medium bowl, season with a little freshly grated black pepper and set everything aside. Add 1 tsp salt to the boiling water, add the spaghetti and when the water comes back to the boil, cook at a constant simmer, covered, for 10 minutes or until al dente. Squash 2 peeled plump garlic cloves with the blade of a knife, just to bruise it. While the spaghetti is cooking, fry the pancetta with the garlic. Keep the heat hot for a few minutes and when the pancetta is golden and crisp, discard the garlic. Take the pan off the heat and set aside. Save some of the pasta water and then drain the spaghetti and add it to the pancetta. Mix most of the cheese in with the eggs, keeping a small handful back for sprinkling over later. Quickly pour the eggs and cheese into the pasta, lifting up the spaghetti so it mixes easily. Use the reserved water to keep it saucy, if necessary. Serve immediately with a little sprinkling of the remaining cheese and a grating of black pepper.

People Who Recommend: 1

You've already recommended this recipe!

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Delete Recipe Post (Logged in user and owner of the current post)

Each **owner** of the recipe post must be able to click on the **[Delete]** button and **delete the current recipe** from the database. After this, the user must be redirected to the **Recipes** page.

A user who is not the owner of the recipe should **NOT** be able to reach this functionality by typing its URL (e.g. "http://localhost:3000/recipes/delete/1234") in the browser address bar.

Edit Recipe Post (Logged in user and owner of the current post)

Each **owner** can edit their **post**. Clicking the **[Edit]** button for a specific post on the details page should display the **Edit page**, all fields being populated with recipe data. It contains a form with input fields for all relevant properties. If **successful**, redirect the user to the **current recipe post details page**. If the user tries to submit **invalid data**, an **error message** should be displayed and the already entered **data should be kept** in the input fields.

A user who is not the owner of the recipes should **NOT** be able to reach this page by typing its URL (e.g. "http://localhost:3000/recipes/edit/1234") in the browser address bar.


6. Security Requirements (Routes Guards)

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

- **Guest** (not logged in) users can access the **Home** page.
- **Guest** (not logged in) users can access the **Login** page and functionality.
- **Guest** (not logged in) users can access the **Register** page and functionality.
- **Guest** (not logged in) and **Users** (logged in) can access the **Recipes (Listed all recipes posts)**.
- **Guest** (not logged in) can access the **Details** page without functionality.
- **Guest** (not logged in) can access the **Search** page and functionality.

- **Users** (logged in) can access the **Home** page.
- **Users** (logged in) can access the `Details` page and functionality.
  - o **Users** (not post owners) can **recommend other's post**.
  - o **Users** (post owners) can `Edit` and `Delete` the current post
- **Users** (logged in) can access the `Search` page and functionality.
- **Users** (logged in) can access the `Add Recipe` page and functionality.
- **Users** (logged in) can access the `Logout` functionality.

Use the following view for **invalid paths**:
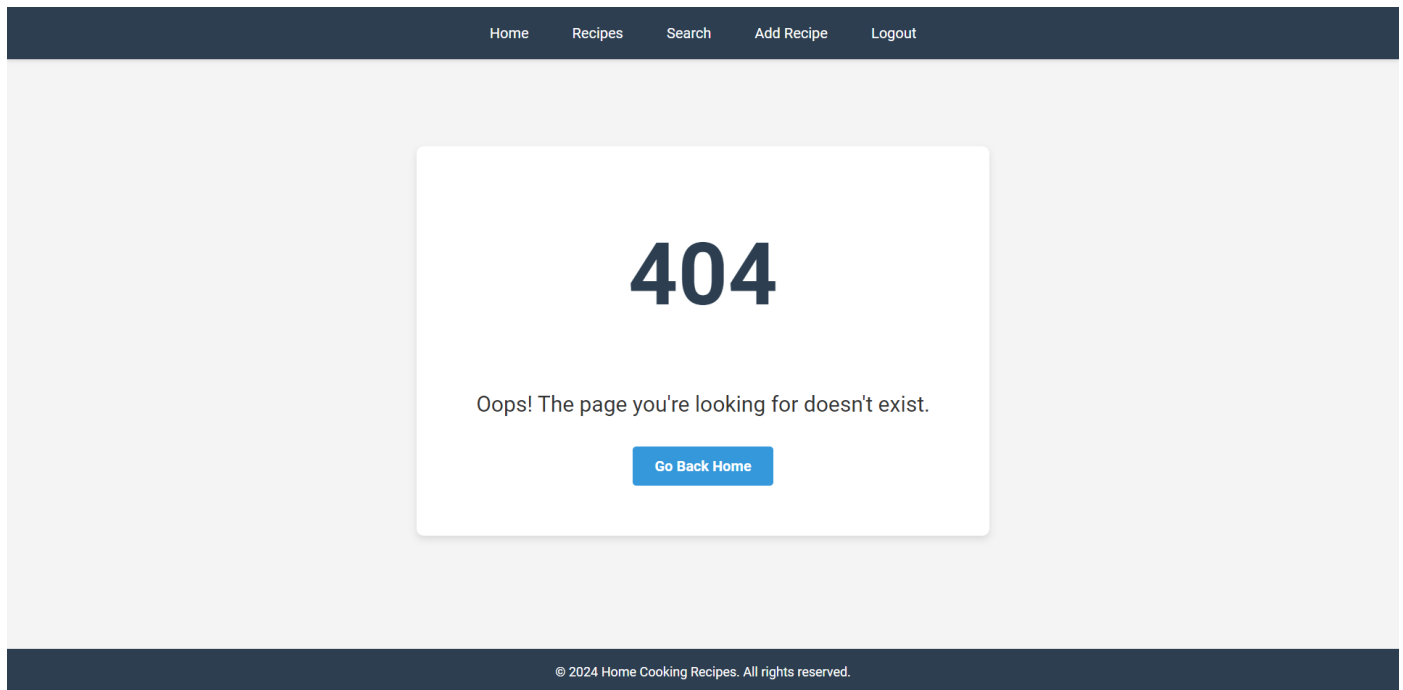
The **Go Back Home** button should be redirected to the **Home Page**.

7. Validation and Error Handling

The application should **notify** the users about the result of their actions.

In case of error, you should display div with class "**error-container**"

You can choose to display the first error or all of them. You have complete freedom to choose the content of the error message you will display, as long as it is clear what exactly the error is.

Login / Register

You should make the following validations:

- The **name** should be **between 2 and 20 characters** long
- The **email** should be **at least 10 characters** long
- The **password** should be **at least 4 characters** long
- The **repeat password** should be **equal to the password**

Home	Recipes	Search	Login	Register

Invalid email or password

Login

Email:

Password:

Login

Don't have an account? Register here.

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Recipes

You should make the following validations while **creating** or **editing a recipes post**:

- The **Title** should be **at least 2 characters**
- The **Description** should be **between 10 and 100 characters long**
- The **Ingredients** should be **between 10 and 200 characters long**
- The **Instuctions** should be **at least 10 characters long**
- The **Image** should start with **http:// or https://**

Home	Recipes	Search	Add Recipe	Logout

Create Recipe

Recipe Title:

Description:

Ingredients:

Instructions:

Image URL:

Create Recipe

Path `title` is required.

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8. * Bonus – Search

Search **for recipes**. Filter all **matches** by **title**, which includes a **search string** (case insensitive). When the search is first open, all recipes should be displayed.

After clicking on the **[Search]** button If there are any matching matches from the search, show each of them.

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If there are **no** search matches, display:

Search Recipes

Search for recipes...   Search

There are no recipes found yet!

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GOOD LUCK! 😊