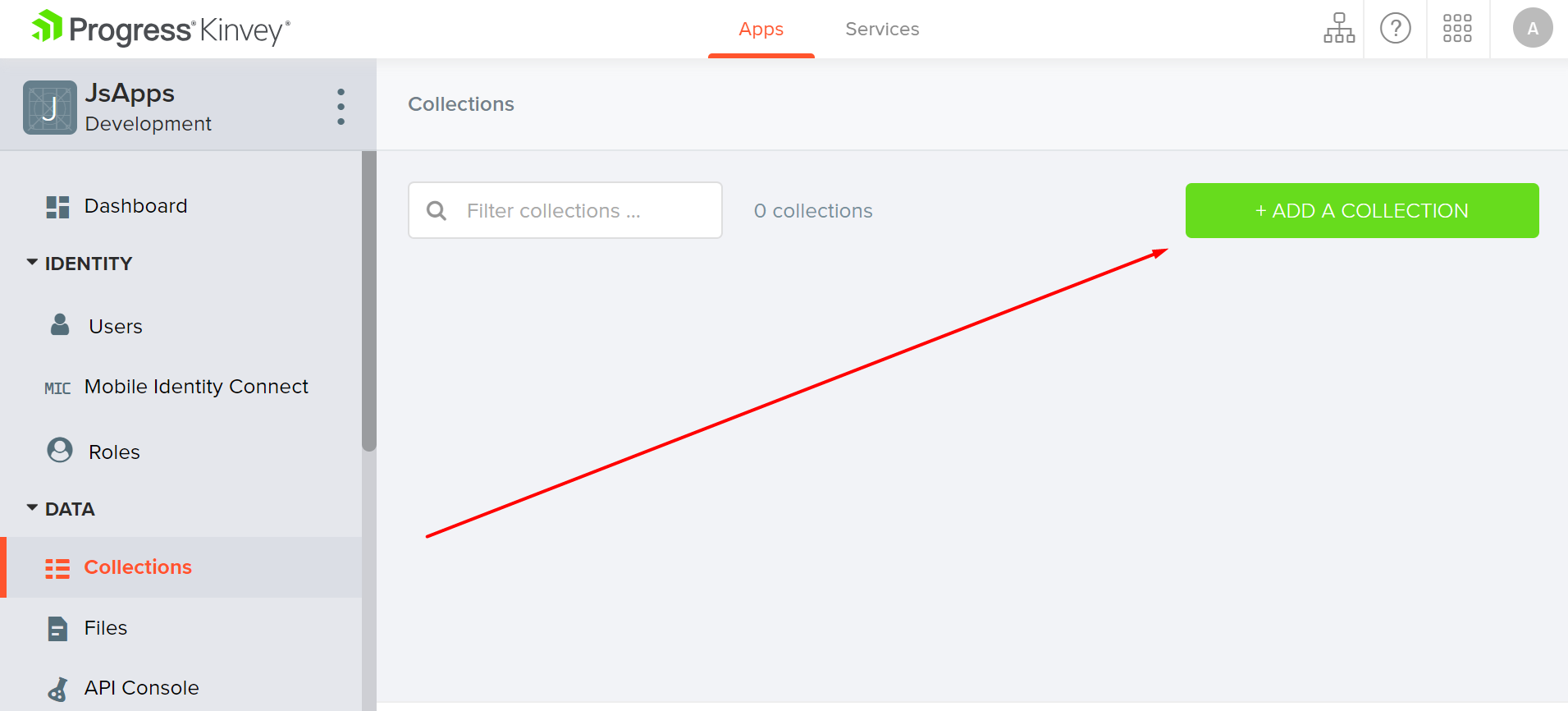
# JS Applications Exam - SoftTerest SPA

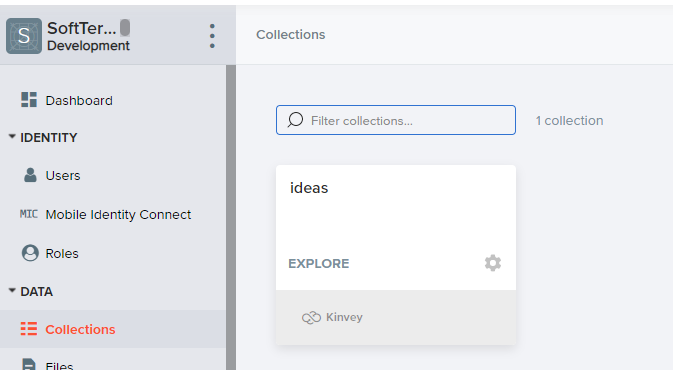
You are assigned to implement a **Web application** (SPA) using HTML5, JavaScript, AJAX, REST and JSON with cloud-based backend (Kinvey). Using libraries like **jQuery**, **Handlebars** and **Sammy** is allowed but is not obligatory. The app keeps **users** and **ideas**. **Guests** should be able to **register** and **login**. Logged-in users should be able to view **all ideas**, **create** **ideas**, **like and comment ideas**, see **details** about an **idea** and **logout**. Logged-in users should also be able to **edit** or **delete** the ideas **they have created**. There should also be a **section** where users can **see only the ideas they have created**.

## Create a Kinvey REST Service

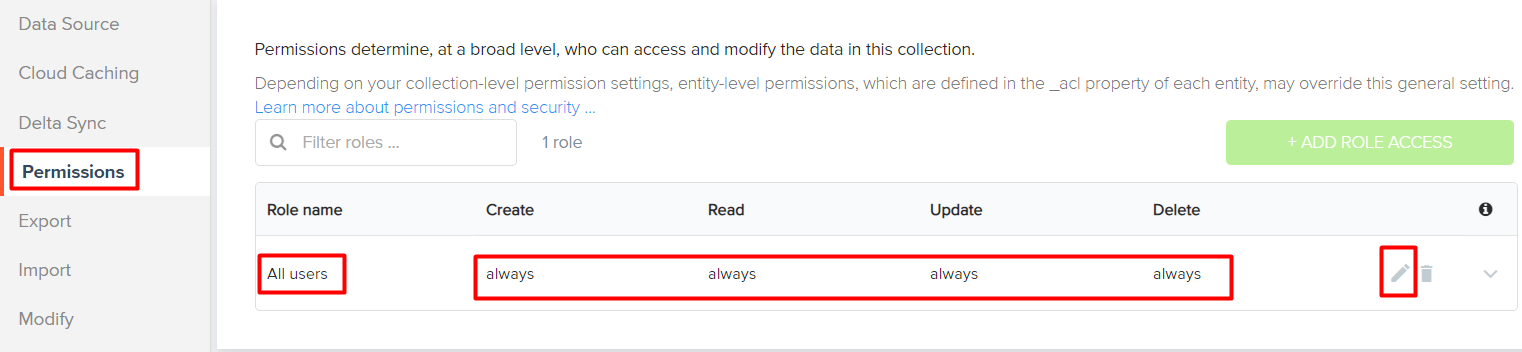
Register at **Kinvey.com** and create application to keep your data in the cloud.

Create a collection called **ideas.** Each **idea** has a **name**, **description**, **organizer, comments** and **likes** (starting from 0).



In order to be able to keep track of the likes and to add comments, you need to give all users permission **to edit this collection**. So, go to the **properties** of the collection.

Then go to the **permissions** and **edit** them to look like this:



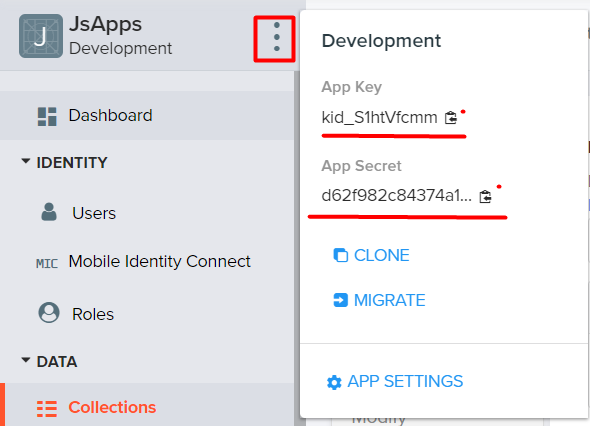
## Test the Kinvey REST Services

Using **Postman** or other HTTP client tool (you can use Kinvey's built-in **API Console**), test the REST service end points:

### User Registration (Sign Up)

|  |  |
| --- | --- |
| **POST** [https://baas.kinvey.com/user/***app\_id***/](https://baas.kinvey.com/user/app_id/) | |
| **Request headers** | Authorization: Basic base64(app\_id:app\_secret)  Content-Type: application/json |
| **Request body** | {  "username": "testuser",  "password": "testuserpass890"  } |
| **Response**  **201 Created** | {  "\_id": "59930c78a743e20c7d3fca77",  "username": "testuser",  "password": "testuserpass890"  } |
| **Error response**  **409 Conflict** | { "error": "UserAlreadyExists", "description": "This username is already taken. Please retry your request with a different username", "debug": "" } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

The request needs "**Basic**" **authentication.** Use the Kinvey **App Key** and **App Secret** as credentials.



### User Login

|  |  |
| --- | --- |
| **POST** [https://baas.kinvey.com/user/***app\_id***/login](https://baas.kinvey.com/user/app_id/login) | |
| **Request headers** | Authorization: Basic base64(app\_id:app\_secret)  Content-Type: application/json |
| **Request body** | {  "username": "testuser",  "password": "testuserpass890"  } |
| **Response**  **200 OK** | {  "\_id": "59930c78a743e20c7d3fca77",  "username": "testuser"  "\_kmd": {  "authtoken":"8e6471bc-3712-4cfb-b92e-50e62a0c80….Duj5fHdM /7XHIe6KdY="  …  },  …  } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

Successful login returns an **authtoken** which is later used to authenticate the CRUD operations.

### User Logout

|  |  |
| --- | --- |
| **POST** [https://baas.kinvey.com/user/***app\_id***/\_logout](https://baas.kinvey.com/user/app_id/_logout) | |
| **Request headers** | Authorization: Kinvey authtoken |
| **Response**  **204 No Content** |  |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

To logout, you need to provide the **authtoken** given by login/register as "**Kinvey**" authorization header.

### List All Ideas

|  |  |
| --- | --- |
| **GET** [https://baas.kinvey.com/appdata/***app\_id***/ideas](https://baas.kinvey.com/appdata/app_id/events) | |
| **Request headers** | Authorization: Kinvey authtoken |
| **Response**  **200 OK** | [{  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  "\_acl":  {  "creator":"5bfd4674682ae23931b4f91c"  },  "\_kmd":  {  "lmt":"2018-11-28T15:25:24.521Z",  "ect":"2018-11-28T14:55:00.958Z"  }  }, …] |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

### Create Idea

|  |  |
| --- | --- |
| **POST** [https://baas.kinvey.com/appdata/***app\_id***/ideas](https://baas.kinvey.com/appdata/app_id/events) | |
| **Request headers** | Authorization: Kinvey authtoken  Content-Type: application/json |
| **Request body** | {  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  } |
| **Response**  **201 Created** | {  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  "\_acl": {  "creator": "5bfd4674682ae23931b4f91c"  },  "\_kmd": {  "lmt": "2018-11-28T15:39:58.801Z",  "ect": "2018-11-28T15:39:58.801Z"  },  "\_id": "5bfeb6ce682ae23931bf7d26"  } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

### Edit Idea

|  |  |
| --- | --- |
| **PUT** [https://baas.kinvey.com/appdata/***app\_id***/ideas/**idea*\_id***](https://baas.kinvey.com/appdata/app_id/events/event_id) | |
| **Request headers** | Authorization: Kinvey authtoken  Content-Type: application/json |
| **Request body** | {  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  } |
| **Response**  **200 Ok** | {  "\_id": "59931398996ab5127d2a84d1",  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

### Delete Idea

|  |  |
| --- | --- |
| **DELETE** [https://baas.kinvey.com/appdata/***app\_id***/ideas/**idea*\_id***](https://baas.kinvey.com/appdata/app_id/events/event_id) | |
| **Request headers** | Authorization: Kinvey authtoken |
| **Response**  **200 OK** | {  "count": 1  } |
| **Error response**  **404 Not Found** | { "error": "EntityNotFound", "description": "This entity not found in the collection", "debug": "" } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

### Like Idea

|  |  |
| --- | --- |
| **PUT** [https://baas.kinvey.com/appdata/***app\_id***/ideas/**idea*\_id***](https://baas.kinvey.com/appdata/app_id/events/event_id) | |
| **Request headers** | Authorization: Kinvey authtoken  Content-Type: application/json |
| **Request body** | {  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  } |
| **Response**  **200 Ok** | {  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev",  "\_id": "5bfeb6ce682ae23931bf7d26",  "\_acl": {  "creator": "5bfd4674682ae23931b4f91c"  },  "\_kmd": {  "lmt": "2018-11-28T15:45:13.760Z",  "ect": "2018-11-28T15:39:58.801Z"  }  } |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

### My Ideas

|  |  |
| --- | --- |
| **GET** [https://baas.kinvey.com/appdata/***app\_id***/ideas?query={"\_acl.creator":"${***user\_id***}"}](https://baas.kinvey.com/appdata/app_id/events?query=%7b%22_acl.creator%22:%22$%7buser_id%7d%22%7d) | |
| **Request headers** | Authorization: Kinvey authtoken |
| **Response**  **200** **OK** | [{  "title":"Dinner Recipe",  "likes":"0",  "description":"There are few things...",  "imageURL":"https://....",  "comments":"[]",  "creator": "peter.georgiev"  "\_acl":  {  "creator":"5bfd4674682ae23931b4f91c"  },  "\_kmd":  {  "lmt":"2018-11-28T15:25:24.521Z",  "ect":"2018-11-28T14:55:00.958Z"  }  }, …] |
| **Error response**  **401 Unauthorized** | { "error": "InvalidCredentials", "description": "Invalid credentials. Please retry your request with correct credentials", "debug": "" } |

## SoftTerest - HTML and CSS

You have been given the web design of the application as **HTML** + **CSS** files.

* Initially all views and forms are shown by the HTML. Your application may **hide**/**show elements** by CSS (display: none) or **delete**/**reattach** from and to the DOM all unneeded elements, or just display the views it needs to display.
* You may render the views/forms/components with **jQuery** or **Handlebars**.

**Important**: Don’t change the elements’ **class names** and **ids**. Don’t rename form fields/link names/ids. You are **allowed** to add **data attributes** to any elements. You may modify href **attributes** of links and add action**/**method **attributes** to **forms**, to allow the use of a routing library.

## SoftTerest - Client-Side Web Application

**Design** and **implement** a client-side front-end app (SPA) for managing **ideas**. Implement the functionality described below.

### (BONUS) Notifications (5 pts)

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

* In case of a **successful** action, a **notification message** **(green)** should be shown, which disappears automatically after 5 seconds or manually when the user clicks it.



* In case of **error**, an **error notification message (red)** should be shown, which disappears on user click.



* During the **AJAX calls** a **loading notification message (blue)** should be shown. It should disappear automatically as soon as the AJAX call is completed.



* **NOTE**: You get all the points if **all** the notifications have the **exact content** as described in each section above.

### Navigation Bar (5 pts)

Navigation links should correctly change the current page (view).

* Clicking on the links in the **NavBar** should display the view behind the link (views are represented as sections in the HTML code).
* Your application may **hide**/**show elements** by CSS (display: none) or **delete**/**reattach** from and to the DOM all unneeded elements, or just display the views it needs to display.
* The Logged-in user navbar should contain the following elements: Icon (icon.jpg) which is a **link** to the Home page, [Create], [Logout].
  + The Icon should be a link that navigates to the **currently logged in user’s** **profile**.
* The guest users navbar should contain the following elements: : Icon (icon.jpg) which is a **link** to the Home page, [Register] and [Login].



### Home Page (Guest) (5 pts)

The initial page (view) should display the **guest** **navigation bar** ("Home" (icon), "Register"and "Login") + **Guest Home Page** + Footer.

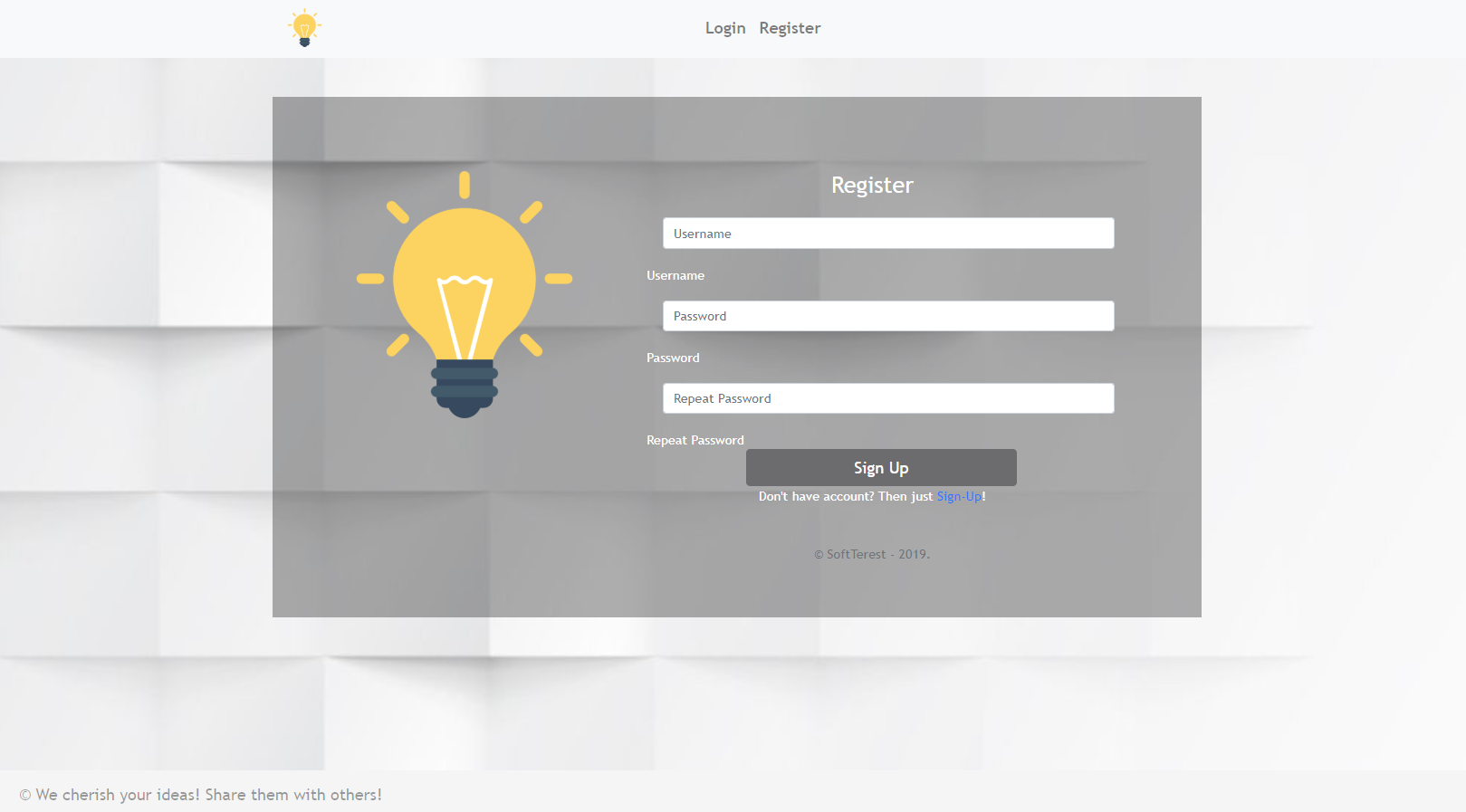


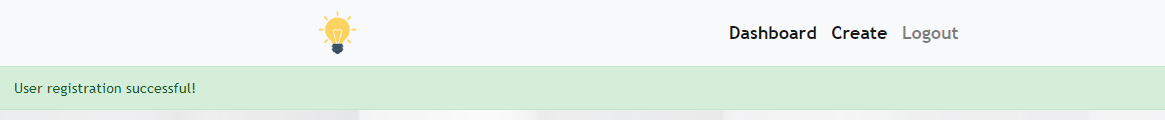
### Register User (5 pts)

By given **username** and **password,** the app should register a new user in the system.

* (BONUS) The following validations should be made:
  + The **username** should be **at least 3 characters** long
  + The **password** should be **at least 3 characters** long
  + The **repeat password** should be **equal to the password**
* After a **successful registration**, a notification message **"User registration successful."** should be displayed and the app should **redirect** to the **home page with the right navbar**.
* In case of **error** (eg. invalid username/password), an appropriate error **message** should be displayed, and the user should be able to **try** to register again.
* Keep the user session data in the browser's **local storage**.

Register once and create/Like awesome ideas!



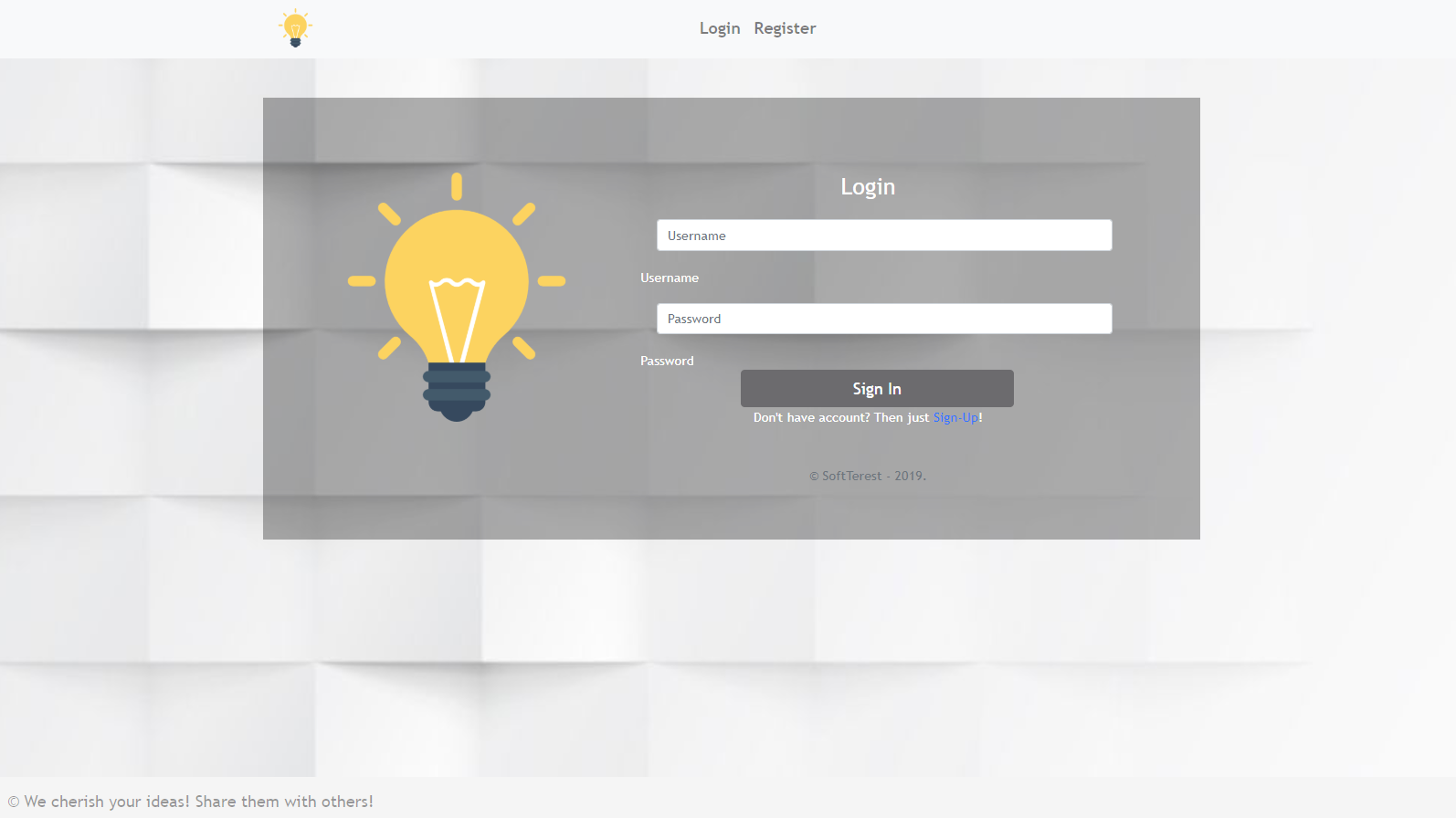


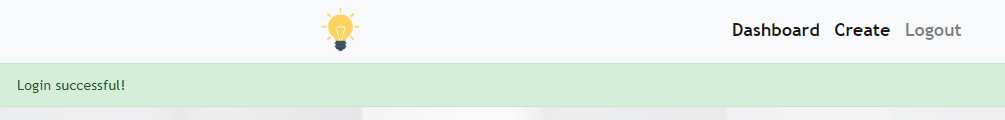
### Login User (5 pts)

By given **username** and **password,** the app should login an existing user.

* After a **successful login**, a notification message **"Login successful."** should be shown and the user home screen should be displayed.
* In case of **error**, an appropriate error message should be displayed and the user should be able to fill in the login form again.
* Keep the user session data in the browser's **local storage**.
* Clear **all** input fields after a **successful** login.

You are one step away from awesome ideas!

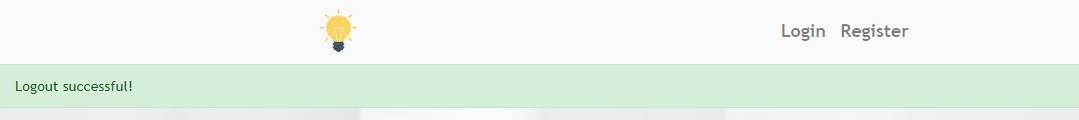
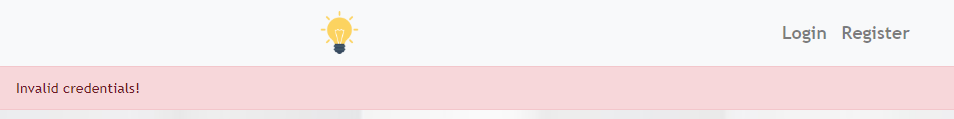




### Logout (5 pts)

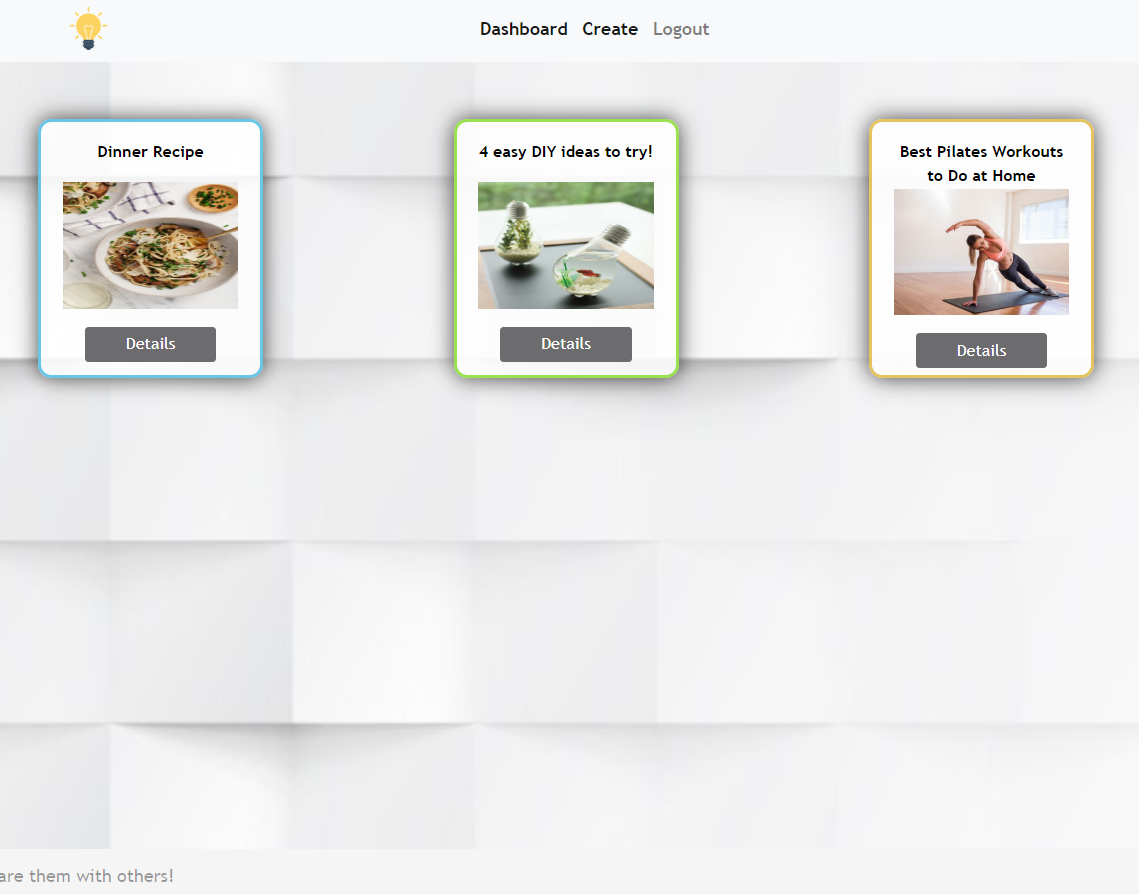
Successfully logged in users should be able to **logout** from the app.

* After a **successful** logout, a **notification** message **"Logout successful."** should be displayed and the **anonymous screen** should be shown
* The **"logout" REST service** at the back-end **must** be called at logout
* All local information in the browser (**user session data**) about the current user should be deleted



### Dashboard (30 pts)

Successfully logged-in users should be able to see the Dashboard. They should be able to see all created ideas.



If there are **NO** such ideas, the following view should be displayed:



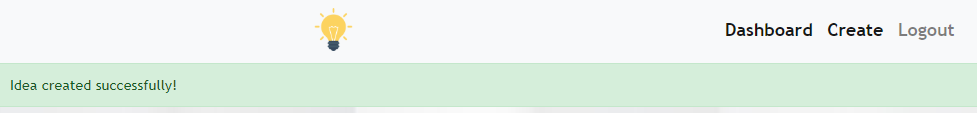
### Create (10 pts)

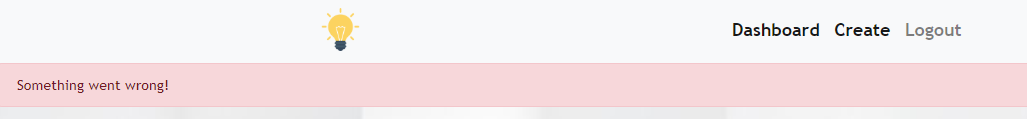
Logged-in users should be able to **Create** ideas.

Clicking the [Create] **link** in the **NavBar** should **display** the Create page.

* (Bonus) The form should contain the following validations:
  + The **title** should be **at least 6 characters** long.
  + The **description** should be **at least 10 characters** long.
  + The **image** should start with **"http://"** or **"https://"**.
  + **By** **default**, every newly created idea must have additional information:
    - **Creator:** string representing the current idea creator;
    - **Likes:** number starting from 0;
    - **Comments:** empty array
  + After a **successful** idea creation, a notification message **"Idea created successfully."** should be displayed and the Dashboardshould be shown.
* The inputs fields in the form **should be cleared.**
* The newly organizer idea should be stored in the Kinvey collection "ideas".





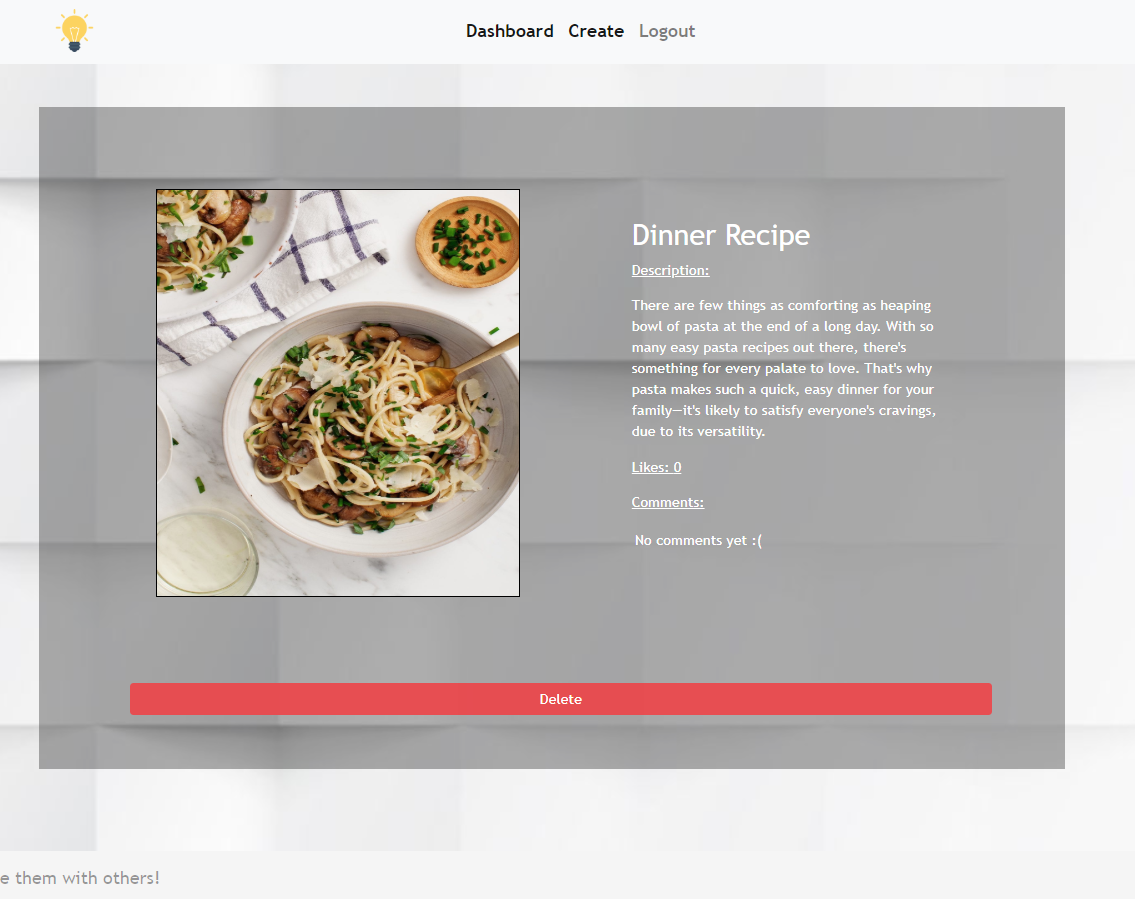


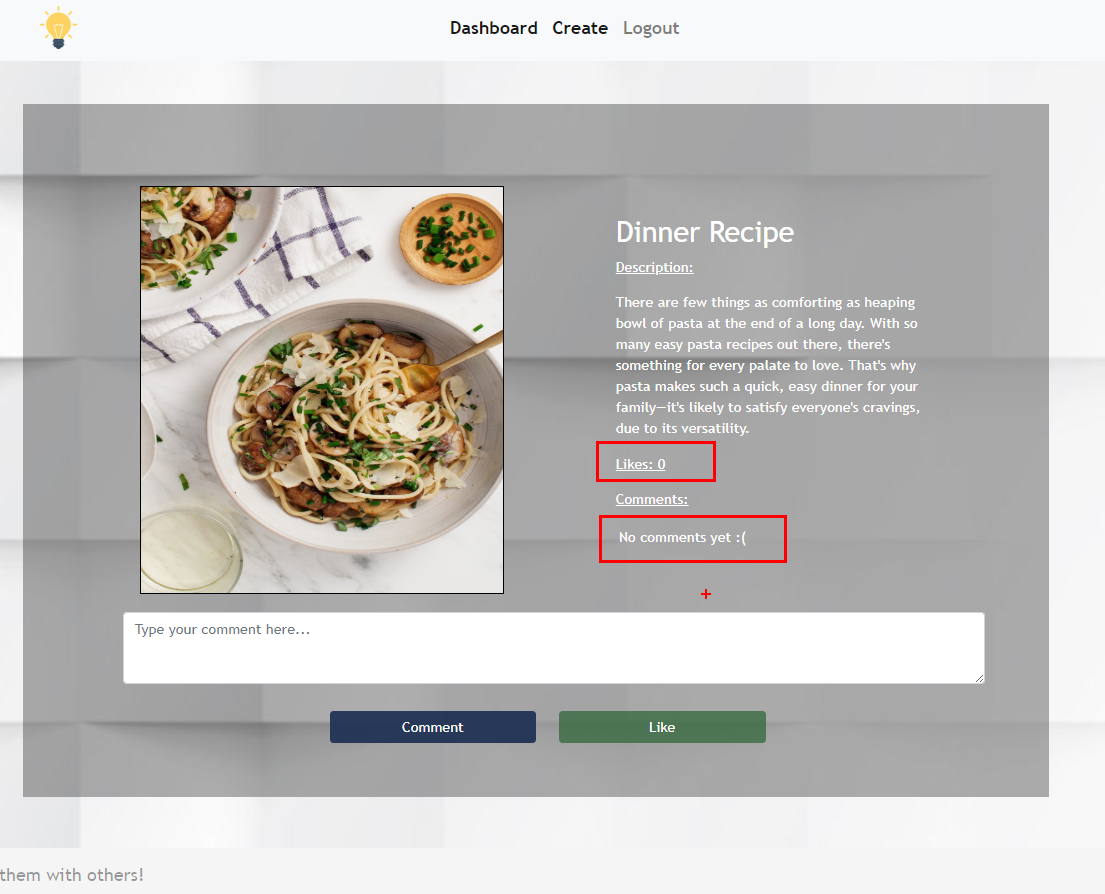
### Details Idea (10 pts)

Logged-in users should be able to **view details** aboutideas.

Clicking the [Details] **link** in of a **particular idea** should **display** the Idea Details page.

* If the currently logged-in user is the organizer of the idea, [Delete] **button** should be set to **visible**, otherwise there should be 2 buttons [Like] and [Comment].
* If there are no comments you should display **"No comments yet"**



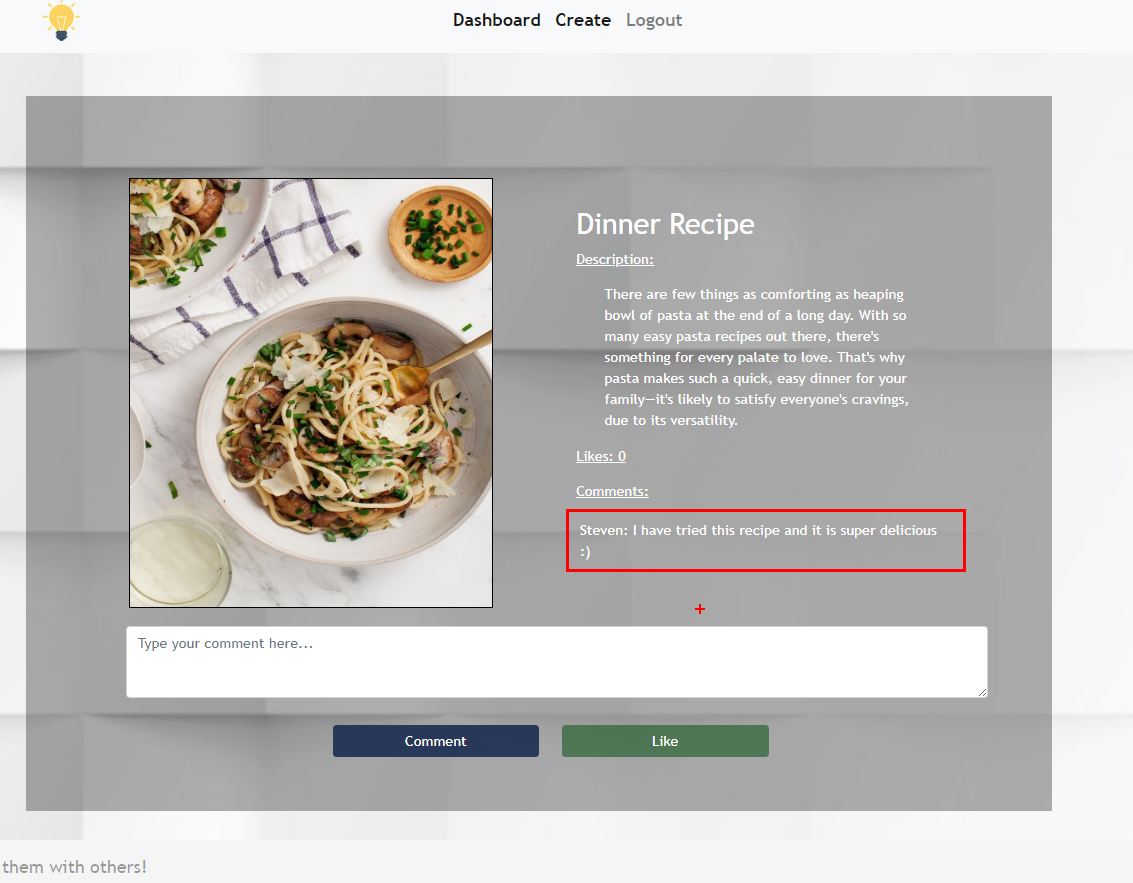


### Comment on Idea (10 pts)

Logged-in users should be able to **comment**  ideas.

Clicking the [Comment] **link** of a **particular idea** on the Idea Details page should **get the comment from the textarea and display it in the proper section.**

**NOTE**: A user should **NOT** be able to comment an **idea**, created by **himself**.



* Every comment shoud be displayed as follows: {current user} : {comment}

### Like Idea (10 pts)

Logged-in users should be able to **Like** ideas, created by **other** **users**.

**NOTE**: A user should **NOT** be able to Like an **idea**, created by **himself**.

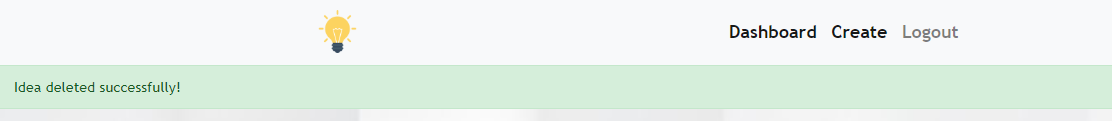
Clicking the [Like] **link** of an **idea** (on the Idea Details page) should **increase** the property for the **likes** of the corresponding idea.  
Users can **Like ideas** multiple times**.**

### Delete Idea (5 pts)

Logged-in users should be able to **delete their** ideas.

Clicking the [Delete] **link** of an **idea** (on the Idea Details page) should **delete** the **idea**.

* After **successful** **idea delete** a notification message **"Idea** **deleted** **successfully."** should be displayed and the Dashboard should be **shown**

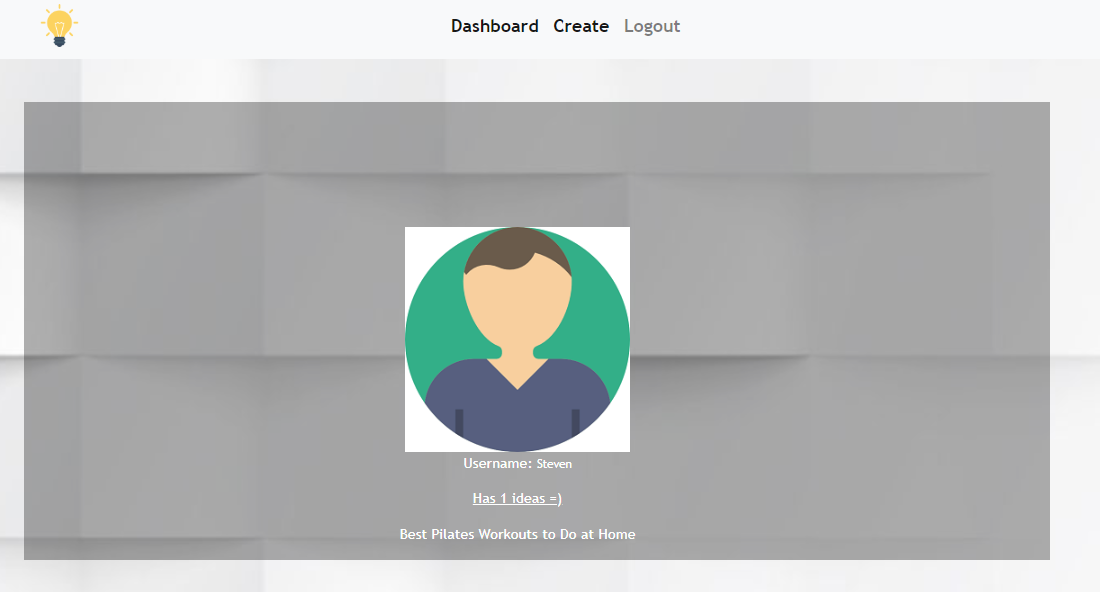


### (BONUS) Profile Page (5 pts)

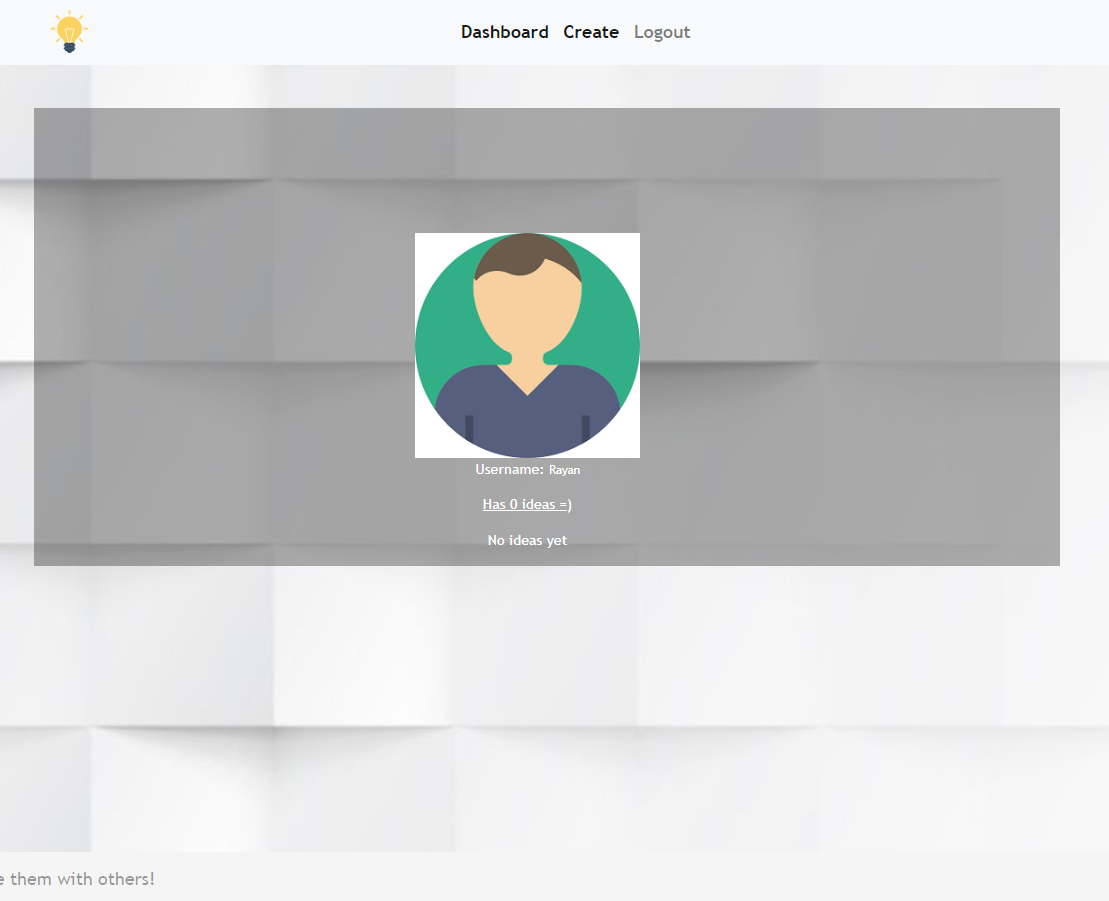
Logged-in users should be able to **view their** **profile**.

Clicking the **Icon link** on the **navigation bar** should **display** the   
User Profile page:

* Each user profile should display user info - **profile picture**, **username** and **ideas information**
  + **"**Has {count} ideas"
  + The **names** of **all ideas** which the user has **created**.



* In case of **no ideas**, display "No ideas yet".



### (BONUS) Sorting: (5 pts)

The ideas in the **home** **page** (for **registered** users), should be sorted in **descending** order by **likes.**

## Submitting Your Solution

Exclude the node\_modules folder and ZIP your project. Upload the archive to Judge system.