Overview:

We need to develop a simple product filter web app, which can help us to filter and search products according to our requirements.

Functional Requirements:

Registration: A form which allows user to register to our web app with following details:

- Username required, alphanumeric value
- Email required, valid email (abc@xyz.com)
- Password required, minimum 8 and maximum 15 characters
- Confirm Password required, must match password

Login: A form which allows users to log in via username/email and password. After successful login, users will be redirected to the homepage.

Homepage: We will have product cards each with product image, name and price. When we hover on the card image, more images related to the product will be shown in slider format. We will have a filter bar on top containing all unique categories of products. For example, if we have bakery products, the filter bar will have options like "All, Cakes, Biscuits, Cookies, Doughnuts". By default, all the products will be visible. When we change the filter, products belonging to that specific category will only be shown, rest products should be hidden. We can also search for a product by its name.

Note: All validations must be implemented using Regular Expressions. All product data must be in JSON format.

Sample design is given below:

