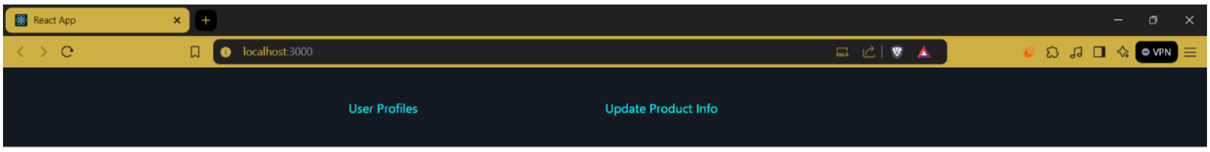
ASSIGNMENT - 1

This React application comprises of both the questions. Both the questions have been completed and have been rendered successfully.



User Profiles

Update Product Info

This is the homepage which contains both the questions and clicking on one of the buttons will take you to the page. This has been done using the Browser Router from the react-router-dom package. Links have been placed so that there is ease of visiting the pages

Question 1: User Profiles

Create a simple React application that displays a list of user profiles. Each profile should include a name, age, and occupation.

Implement the following:

1) Use JSX for rendering the components.

2) Use the Virtual DOM and React DOM to render the user list dynamically.

3) Include a form that allows adding a new user profile to the list. Ensure that each list item has a unique key.

4) Implement conditional rendering to display a message like "No users available" when the user list is empty.

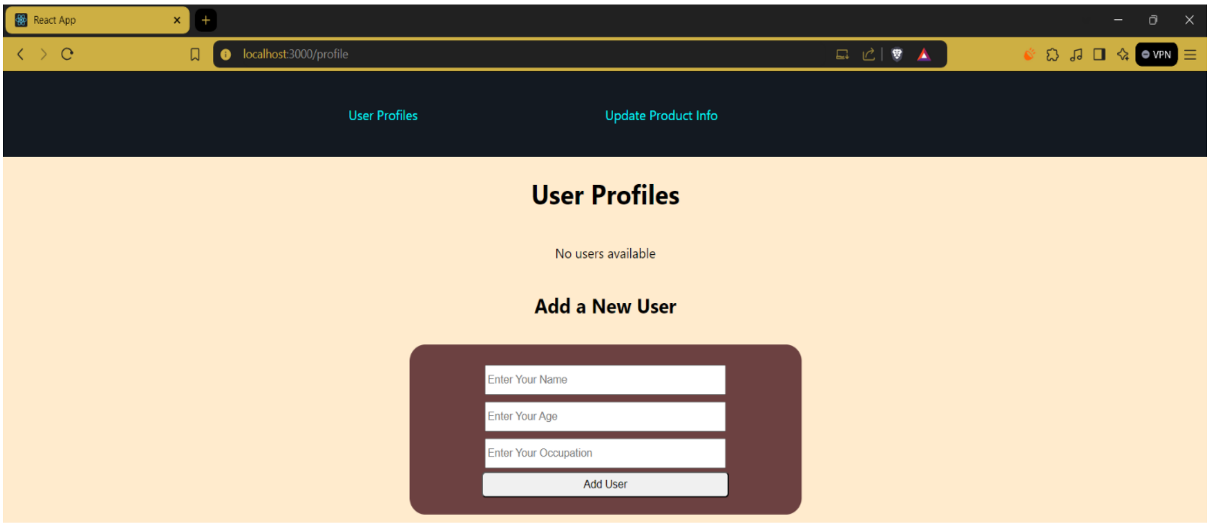
The following has been satisfied in the code:

1) JSX terms such as div, li, ul, etc tags have been used in this code to integrate JSX into the react application.

2) Virtual DOM has been used in this component to render the user's list as it is faster than easier than to manipulate the actual DOM.

3) A form has been created using the form tag and all the required fields such as name, age and occupation. Add user has been called using the the handleAddUser method which works on the click of the button. Dynamically updates the Virtual DOM and re-renders the list whenever a new user is added.

4) If there are no users in the user's state, a message "No users available" is displayed. Otherwise, the list of users is rendered using the .map() method, with each item having a unique key (user.id).

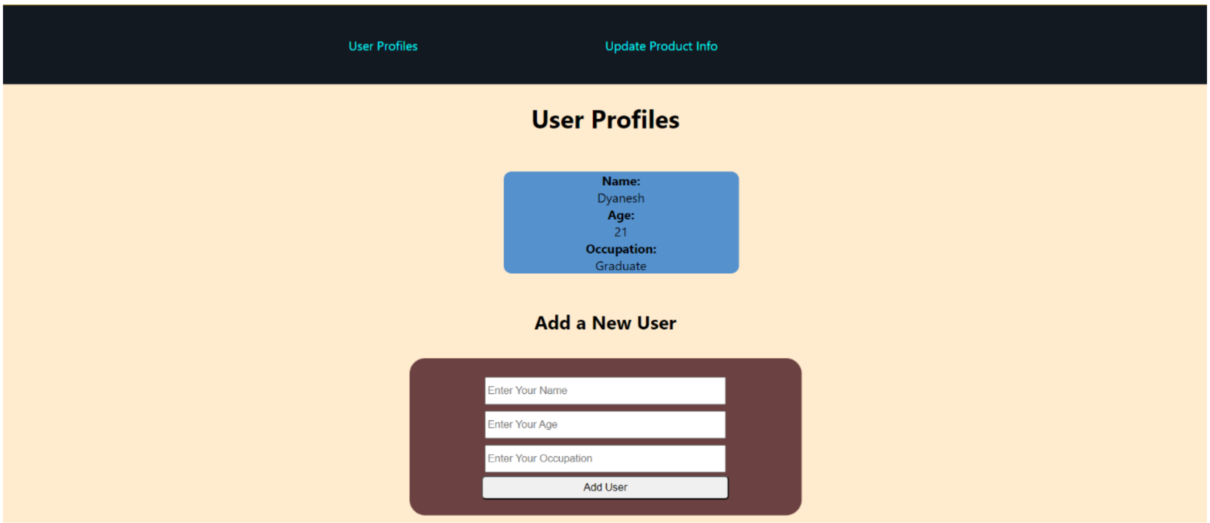


User Profiles

No users available

Add a New User

When clicked on User Profiles, it opens the User Profiles component and there appears a form which can be used to enter the name, age and occupation of the user. It is then added to the list.



User Profiles

Name:
Dyanesh
Age:
21
Occupation:
Graduate

Add a New User

This is an example of the addition of an entry looks like and there is no issue in the re-renders.

Question 2: Update Product Info

Develop a React component that displays information about a product (e.g., a book or a gadget).

Implement the following:

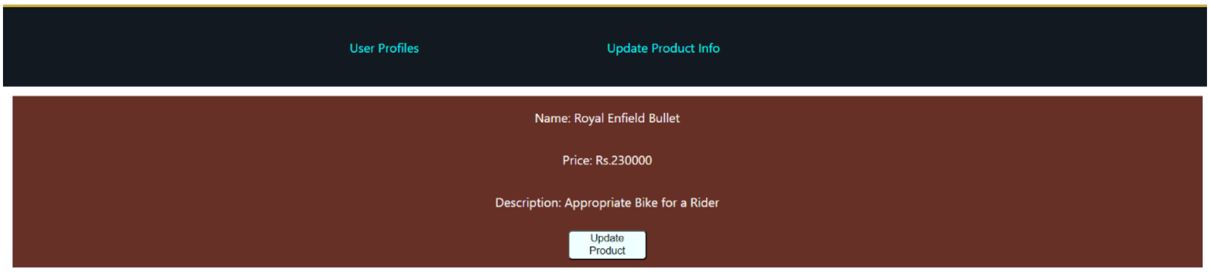
1) Create a Method that updates the product's details (e.g., name, price, and description) when a button is clicked.

2) Use Methods as Props to pass the update method to a child component.

3) Include the use of Prop Types to validate the props being passed.

4) Differentiate between State and Props by managing the product details in the component's state and passing data as props.

Below is an example of the first state that the component is in and how it changes and the implementation are given below that.



Name: Royal Enfield Bullet

Price: Rs.230000

Description: Appropriate Bike for a Rider

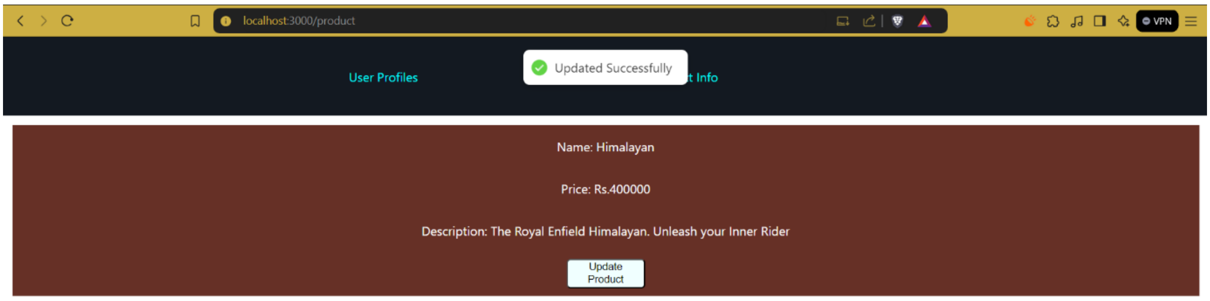
The following has been satisfied in the code:

1) A method has been create named "Update Product" to update the existing product to the new product.

2) The updateProduct function is passed to the ProductDetails child component as a prop. This allows the child component to update the product details when the button is clicked.

3) PropTypes are used to ensure the `product` object and the updateProduct function are correctly passed to ProductDetails. Additionally, the validateProps function checks if the product details are the correct types (string for name/description, number for price). If there's an error, a toast message is shown.

4) States have been used to re-render the page and change the state to the new state. In the project, royal enfield bullet has been changed to Himalayan. This is done using states. Props have been used when the update product is clicked, it triggers the update method and then the state is changed.



Updated Successfully

Name: Himalayan

Price: Rs.400000

Description: The Royal Enfield Himalayan. Unleash your Inner Rider

This is how the updated details look like and a toaster notification can be seen on the top of the screen which tells us that the state has been updated successfully.