**Exercise 1:**

Using the following starter code, complete the BitcoinRates component to fetch and display the current price of Bitcoin in the selected currency.

● Use a useEffect hook with cleanup and appropriate dependencies.

const currencies = ["USD", "AUD", "NZD", "GBP", "EUR", "SGD"];

function BitcoinRates() {

const [currency, setCurrency] = useState(currencies[0]);

// fetch URL:

<https://api.coingecko.com/api/v3/simple/price?ids=bitcoin&vs>\_currencies=${currency}

const options = currencies.map((curr) => (

<option value={curr} key={curr}>

{curr}

</option>

));

return (

<div className="BitcoinRates componentBox">

<h3>Bitcoin Exchange Rate</h3>

<label>

Choose currency:

<select value={currency} onChange={(e) => setCurrency(e.target .value)}> {options}

</select>

</label>

</div>

);

}

**Exercise 2:**

Update your BitcoinRates component to use a custom hook for extracting the external data synchronization process

● Implement useReducer to handle the internal state management of your custom hook.

**Exercise 3:**

Create a LoginForm component that performs basic validation on name, email and

password fields, then stores the name and email address of the currently logged-in user in context.

● Create a UserContext for storing and providing the name and email of the currently logged in user.

**Exercise 4:**

Create a basic navigation bar that uses the react-router-dom library, to navigate between Login and Bitcoin pages.

● Add a welcome message to the logged in user in the BitcoinRates component.