MSWD

SKILL EXPERIMENT-04

DATE OF SESSION:14-08-2021

SKILL -04 AXIOS

Prerequisites:

 Installation of Axios

Piyush is very fond of the game Valorant. He wants to see all the characters/agents and weapons available in the game and also details about them. Luckily he found an API (https://valorantapi.com/v1/agents, https://valorant-api.com/v1/weapons) which provided him the necessary data

so with the help of axios library or fetch method access the data from the above api using an asynchronous call to the API.

Also make a search page where the users can search for any agents or weapons and then display the results in a card. Leverage the life cycle hooks provided by React.js to display the data according to the page and use material-ui for giving the page a modern look. Display the information in different pages using the react router.

A simple example is given below to show you the data and how you may use it but we want you to use your own imagination and create the app

QUICK FIX:

APP.JS:

```
import React, {useState} from 'react'
import { BrowserRouter as Router, Switch, Route, Link } from "react-router-
dom"
import Ex4 from './components/Experiment4'
import {Container, AppBar, Toolbar} from '@material-ui/core'
```

```
const App = (props) => {

  const s1 = {
    border: '1px solid red',
    width: '300px',
    boxShadow: '2px 3px 5px black',
    color: 'green',
    margin: 'auto',
    textAlign: 'center',
    textShadow: '1px 1px 2px blue, 1px 2px 1px yellow'
  }

  const s2 = {
    border: '3px solid green',
    margin: '20px'
  }

  const menu = {
     padding: 5
  }

  return (
    <Container>
    <Router>
      <div>
      <AppBar position="static">
       <Toolbar>

        <Link style={menu} to="/page4">Experiment 4</Link>
      </Toolbar>
      </AppBar>
      </div>

      <Switch>
        <Route path="/page4">
          <Ex4 />
        </Route>
      </Switch>
    </Router>
    </Container>
  )
}

export default App;
```

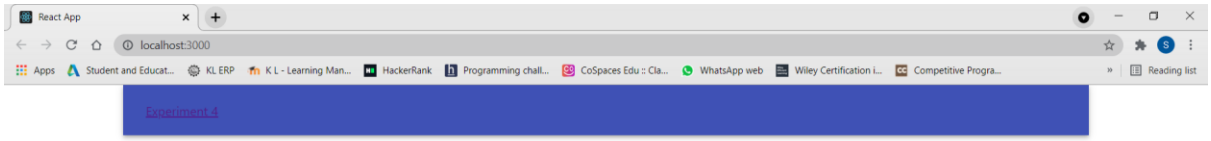
EXPERIMENT-04

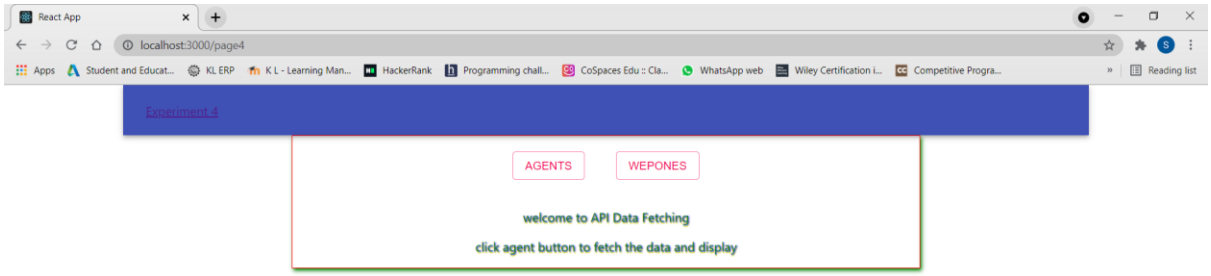
```
import {useState} from 'react'
import {Button} from '@material-ui/core'
import axios from 'axios'

 const s1 = {
    border: '1px solid red',
    width: '800px',
    boxShadow: '2px 3px 5px green',
    color: 'green',
    margin: 'auto',
    textAlign: 'center',
    textShadow: '1px 1px 2px blue, 1px 2px 1px yellow'
  }

  const s2 = {
    margin: 20
  }

  const Disp = ({agents, wepones, nav}) => {
    if (agents !== null && nav === "Agents") {
    return (
      <div>
        {[1,2,3,4].map(i => {
        return (
        <div>
        <p>{agents.data[i].displayName}</p>
        <img src = {agents.data[i].displayIcon} alt = "Avator" width = '100' /
>
        </div>
        )
        })
      }
      </div>
    )
  }
  else if (wepones !== null && nav === "Wepones") {
    return (
      <div>
        {[1,2,3,4].map(i => {
        return (
        <div>
        <p>{wepones.data[i].displayName}</p>
        <img src = {wepones.data[i].displayIcon} alt = "Avator" width = '100'
/>
        </div>
        )
```

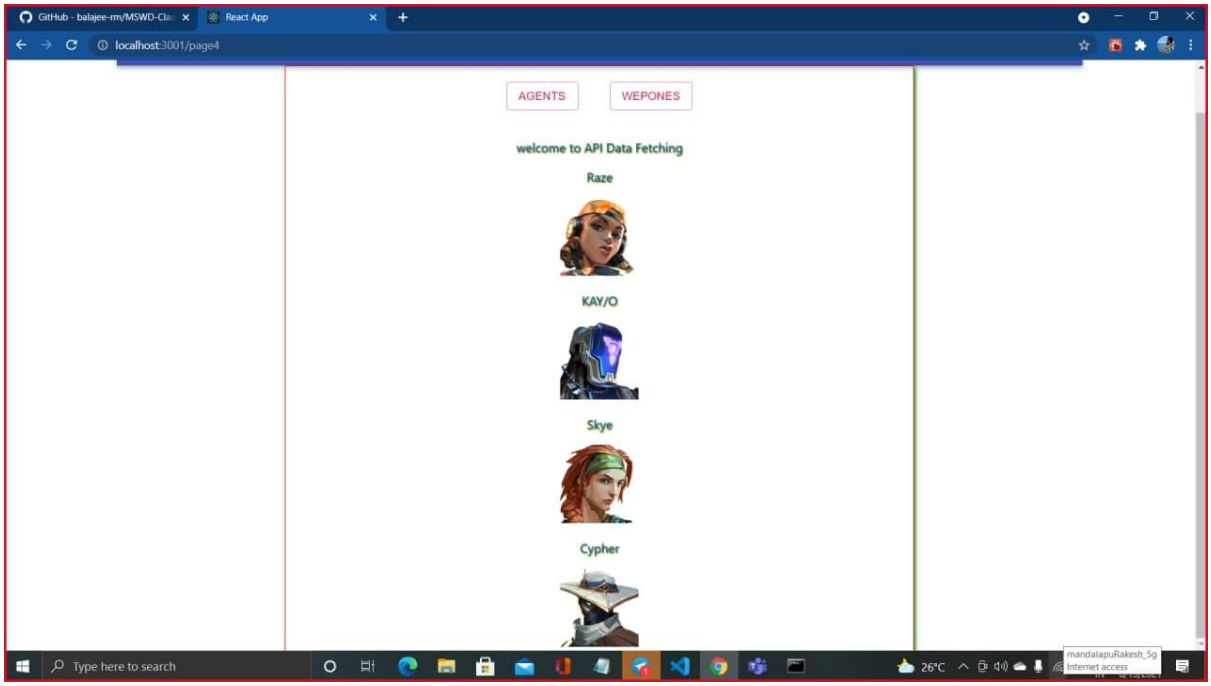
```
        })
      }
      </div>
    )
  }
  else {
    return (
      <div>
        <p> click agent button to fetch the data and display </p>
      </div>
    )
  }
  }

const Experiment3 = () => {
  const [nav, setNav] = useState("")
  const [agents, setAgents] = useState(null)
  const [wepones, setWepones] = useState(null)

  const changeView = (val) => {
    setNav (val);
  }

  const getAgents = () => {
    axios.get('https://valorant-api.com/v1/agents/')
      .then(res => {
        setAgents(res.data);
      })
  }

  const getWepones = () => {
    axios.get('https://valorant-api.com/v1/weapons/')
      .then(res => {
        setWepones(res.data);
      })
  }

  if (nav === "Agents") {
    getAgents();
  }
  else if (nav === "Wepones") {
    getWepones();
  }

  return (
    <div style = {s1}>

    <div>
```

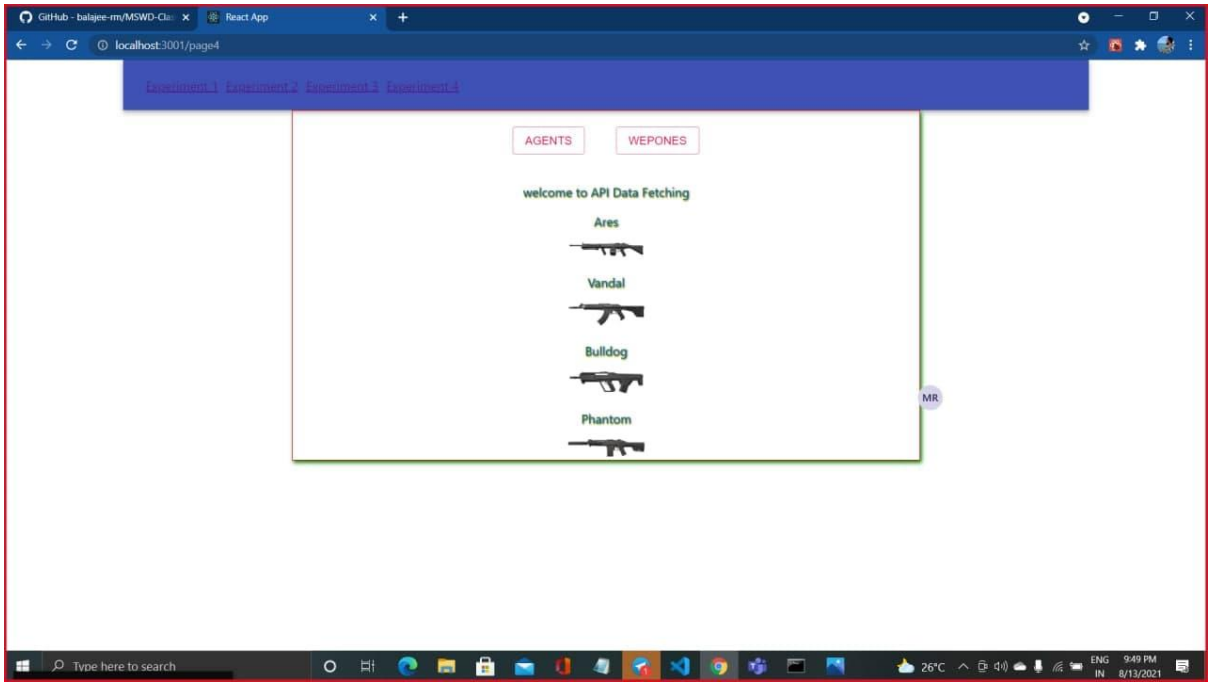
```
    <Button style = {s2} variant="outlined" color="secondary" onClick = {() =>
 changeView("Agents")}> Agents </Button>
    <Button style = {s2} variant="outlined" color="secondary" onClick = {() =>
 changeView("Wepones")}> Wepones </Button>
    </div>

      <p> welcome to API Data Fetching </p>
      <Disp agents = {agents} wepones = {wepones} nav = {nav} />
    </div>
    )
}

export default Experiment3
```

SCREENSHOTS/OUTPUTS:




React App
localhost:3000/page4
Experiment 4
AGENTS
WEPONES
welcome to API Data Fetching
click agent button to fetch the data and display


localhost:3001/page4
AGENTS
WEPONES
welcome to API Data Fetching
Raze
KAY/O
Skye
Cypher
Type here to search



EXERCISES/QUESTIONS:

Q1.Why you are using axios in react?

A. Here are five reasons why you should use Axios as your client to make HTTP requests:
   1.It has good defaults to work with JSON data.
   2. Axios has function names that match any HTTP methods.
   3. Axios does more with less code.
   4. Axios has better error handling.
   5. Axios can be used on the server as well as the client.

Q2. What higher order components are in react?

A. A higher-order component (HOC) is an advanced technique in React for reusing component logic. HOCs are not part of the React API, per se. They are a pattern that emerges from React's compositional nature. Concretely, a higher-order component is

a function that takes a component and returns a new component.

Q3. Why does the callback function in the useEffect hook cannot be asynchronous?

A. React can run this async function but can not run the cleanup function .Don't use raw async function directly in the useEffect.

Q4. How to pass data in react from one Component to another in react?

A. Props are used for passing data between the components. We usually use it to pass data from the parent component to the child component.

But what if you need to pass data from Child to Parent component? What if you need to pass data between siblings.

Q5. Why are API calls made from useEffect hooks or ComponentDidMount?

A. When I am trying to make an API call using in useEffect hook (before the component did mount), somehow the state is not getting updated, hence I am getting an error Cannot read property of undefined.