

# **ANNAI MIRA COLLEGE OF ENGINEERING AND TECHNOLOGY**

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## **DEPARTMENT OF INFORMATION TECHNOLOGY**



## **IT3511-FULL STACK WEB DEVELOPMENT LABORATORY**

**Name** : .....

**Register Number** : .....

**Year & Branch** : .....

**Semester** : .....

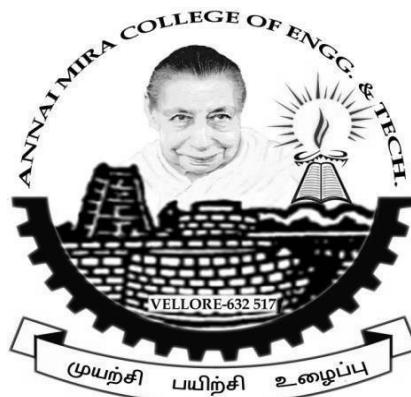
**Academic Year** : .....

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## CERTIFICATE

This is to certify that the bonafide record of the practical work done by ..... Register Number ..... of III year B.Tech (Information Technology) submitted for the B.Tech - Degree practical examination (**V Semester**) in **IT3511 -FULL STACK WEB DEVELOPMENT LABORATORY** during the academic year 2025 – 2026

Staff in -Charge

Head of the Department

Submitted for the practical examination held on -----

Internal Examiner

External Examiner

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S.NO	DATE	LIST OF EXPERIMENTS	PAGE	SIGN
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2.		Create a web application to manage the TO-DO list of users, where users can login and manage their to-do items.		
3.		Create a simple micro blogging application (like twitter) that allows people to post their content which can be viewed by people who follow them.		
4.		Create a food delivery website where users can order food from a particular restaurant listed in the website.		
5.		Develop a classifieds web application to buy and sell used products.		
6.		Develop a leave management system for an organization where users can apply different types of leaves such as casual leave and medical leave. They also can view the available number of days using react		
7.		Develop a simple dashboard for project management where the statuses of various tasks are available. New tasks can be added and the status of existing tasks can be changed among Pending, In Progress or Completed.		
8.		Develop an online survey application where a collection of questions is available and users are asked to answer any random 5 questions.		

<b>Ex No : 1</b>	<b>Develop a portfolio website for yourself which gives details about yourself for a potential recruiter.</b>
<b>DATE :</b>	

### **AIM:**

To develop a portfolio website using ReactJS.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React app using create-react-app.

#### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of our portfolio (Header, About, Projects, Contact), create a separate .js file inside the components directory.

#### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about skills, experiences, projects, and contact information.

#### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

#### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

#### **Step 6: Testing**

- Run the development server (npm start) to see our portfolio website in the browser.

### **PROGRAM:**

#### **Header.js**

```
import React from 'react';
import './Header.css';

const Header = () => {
  return (
    <header className="header">
      <h1>RANI</h1>
      <p>Frontend Developer</p>
    </header>
  );
};

export default Header;
```

```
export default Header;
```

## About.js

```
import React from 'react';
import './About.css';

const About = () => {
  return (
    <section className="about">
      <h2>About Me</h2>
      <p>
        I am a passionate frontend developer with a strong interest in creating
        engaging and user-friendly web applications. I enjoy turning complex
        problems into simple, beautiful, and intuitive solutions.
      </p>
    </section>
  );
};

export default About;
```

## Projects.js

```
import React from 'react';

const Projects = () => {
  return (
    <section className="projects">
      <h2>Event Management Website</h2>
      <h2>I am Building a platform for managing events. Users can create events, send invitations, and manage RSVPs.  
Include event details, location, and scheduling.</h2>
      {/* Add your project details here */}
    </section>
  );
};

export default Projects;
```

## Contact.js:

```
import React from 'react';

const Contact = () => {
  return (
    <section className="contact">
      <h2>Contact Me</h2>
      <p>Email: Rani@jkkn.ac.in</p>
      <p>LinkedIn: Rani.com@LinkedIn</p>
      {/* Add other contact details */}
    </section>
  );
};

export default Contact;
```

```
    </section>
  );
};

export default Contact;
```

### App.js:

```
import React from 'react';
import './App.css';
import Header from './components/Header';
import About from './components/About';
import Projects from './components/Projects';
import Contact from './components/Contact';

function App() {
  return (
    <div className="app">
      <Header />
      <About />
      <Projects />
      <Contact />
    </div>
  );
}

export default App;
```

### App.css:

```
.header {
  background-color: #333;
  color: #fff;
  text-align: center;
  padding: 2rem;
}

.header h1 {
  margin: 0;
}

.header p {
  margin: 0;
}
```

## OUTPUT:

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows a tree view of the project structure under "UNTITLED (WORKSPACE)".
- Code Editor:** Displays the file "Projects.js" containing React code for a portfolio page.
- Terminal:** Shows the output of the build process:
  - "Compiled successfully!"
  - You can now view portfolio in the browser.
  - Local: http://localhost:3003
  - On Your Network: http://172.20.6.187:3003
  - Note that the development build is not optimized. To create a production build, use npm run build.
  - webpack compiled successfully
- Status Bar:** Shows "Ln 12, Col 1" and "14:22 30-08-2023".



### **About Me**

I am a passionate frontend developer with a strong interest in creating engaging and user-friendly web applications. I enjoy turning complex problems into simple, beautiful, and intuitive solutions.

### **PROJECT NAME: Event Management Website**

**DESCRIPTION: I am Building a platform for managing events. Users can create events, send invitations, and manage RSVPs. Include event details, location, and scheduling.**

### **Contact Me**

Email: rani@jkkn.ac.in

LinkedIn: rani.com@LinkedIn

Activate Windows  
Go to Settings to activate Windows.



## RESULT:

Thus, the development of a portfolio website using ReactJS was successfully done and verified.

<b>Ex No : 2</b>	<b>Create a web application to manage the TO-DO list of users, where users can login and manage their to-do items</b>
<b>DATE :</b>	

### **AIM:**

To Create a web application to manage the TO-DO list of users, where users can login and manage their to-do items using React.

### **ALGORITHM:**

#### **Step 1: Set Up**

- Create a new React app with necessary components.
- Set up states to track login status, to-do list, and new to-do input.

#### **Step 2: Login Component (Login.js)**

- Display a form with username and password fields.
- Manage user input using state.

#### **Step 3: TodoItem Component (TodoItem.js)**

- Display an individual to-do item.

#### **Step 4: TodoList Component (TodoList.js)**

- Show a list of to-do items.
- Manage the list using state.
- Add new items to the list.

#### **Step 5: App Component (App.js)**

- Track the logged-in state using state.
- Show either login or to-do list based on the state.
- Pass the login callback to the Login component.

#### **Step 6: Testing and Running:**

- Start the app to see the login screen.

### **PROGRAM:**

#### **Login.js:**

```
import React, { useState } from 'react';

const Login = ({ onLogin }) => {
  const [username, setUsername] = useState("");
  const [password, setPassword] = useState("");
  const handleLogin = () => {
    // Simulated login logic
  }
  return (
    <div>
      <input type="text" value={username} onChange={e => setUsername(e.target.value)} />
      <input type="password" value={password} onChange={e => setPassword(e.target.value)} />
      <button onClick={handleLogin}>Login</button>
    </div>
  );
}

export default Login;
```

```

if(username === 'user' && password === 'password') {
  onLogin(true);
} else {
  alert('Invalid credentials');
}
};

return (
<div>
<h2>Login</h2>
<input
  type="text"
  placeholder="Username"
  value={username}
  onChange={(e) => setUsername(e.target.value)}
/>
<input
  type="password"
  placeholder="Password"
  value={password}
  onChange={(e) => setPassword(e.target.value)}
/>
<button onClick={handleLogin}>Login</button>
</div>
);
};

export default Login;

```

### TodoItem.js:

```

import React from 'react';

const TodoItem = ({ text }) => {
  return <li>{text}</li>;
};

export default TodoItem;

```

### TodoList.js:

```

import React, { useState } from 'react';
import TodoItem from './TodoItem';

const TodoList = () => {
  const [todos, setTodos] = useState([]);
  const [newTodo, setNewTodo] = useState("");

  const addTodo = () => {
    if(newTodo.trim() !== "") {
      setTodos([...todos, newTodo]);
      setNewTodo("");
    }
  }
}

export default TodoList;

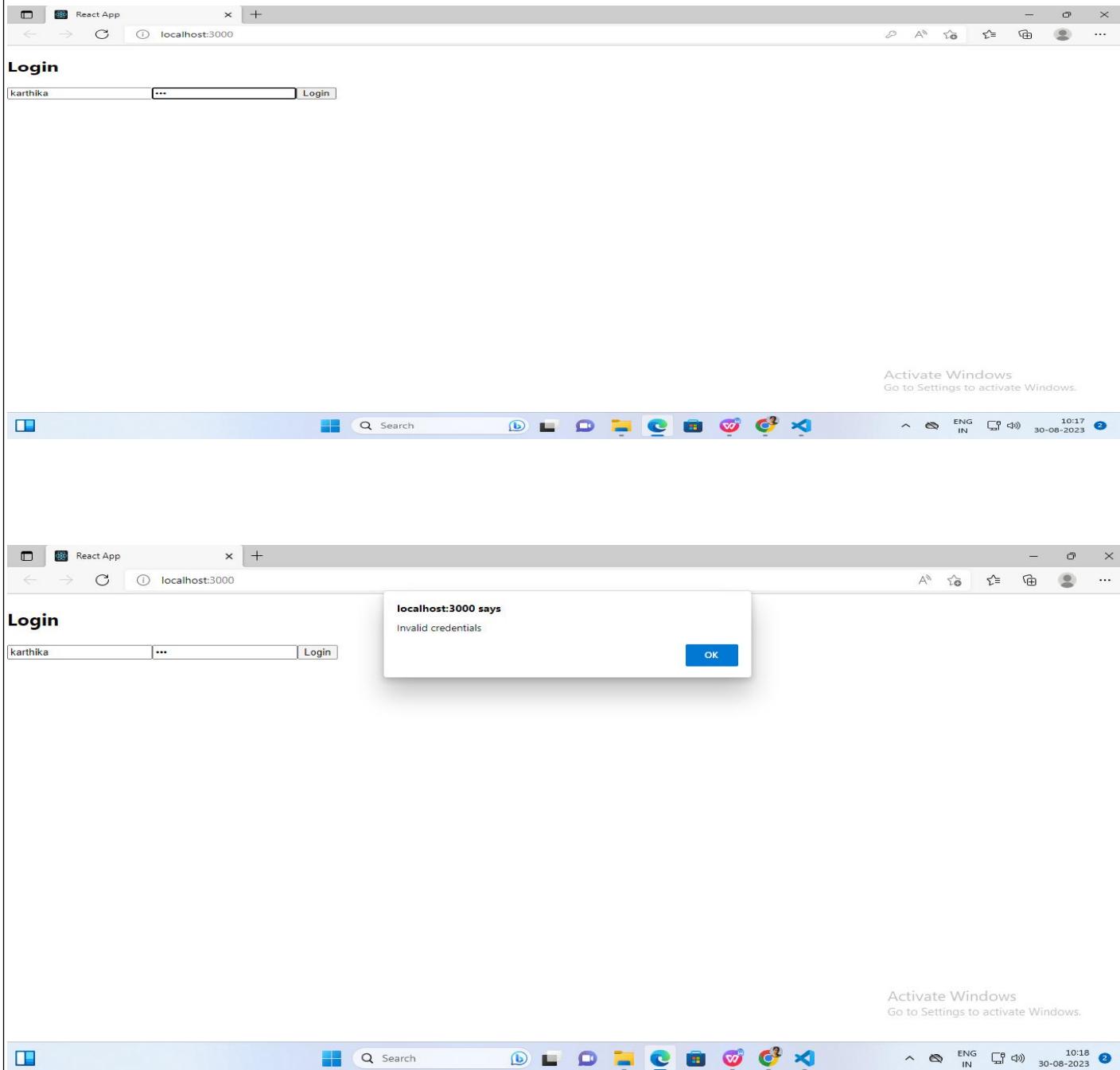
```

```
};

return (
  <div>
    <h2>To-Do List</h2>
    <ul>
      {todos.map((todo, index) => (
        <TodoItem key={index} text={todo} />
      ))}
    </ul>
    <input
      type="text"
      placeholder="New Todo"
      value={newTodo}
      onChange={(e) => setNewTodo(e.target.value)}
    />
    <button onClick={addTodo}>Add</button>
  </div>
);
};

export default TodoList;
```

## Output:





### To-Do List

Add

Activate Windows  
Go to Settings to activate Windows.



### To-Do List

• karthika

Add

Activate Windows  
Go to Settings to activate Windows.



## RESULT:

Thus, the execution of creating a web application to manage the TO-DO list of users, where users can login and manage their to-do items using React was successfully created and executed.

<b>Ex No : 3</b>	<b>Create a simple micro blogging application (like twitter) that allows people to post their content which can be viewed by people who follow them.</b>
<b>DATE :</b>	

### **AIM:**

To Create a Simple Micro Blogging Application Using React.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React app using create-react-app.

#### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of our micro blogging (Header, Usercard, Postcard, Dashboard), create a separate .js file inside the components directory.

#### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about card information.

#### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

#### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

#### **Step 6: Testing**

- Run the development server (npm start) to see micro blogging application website in the browser.

### **PROGRAM:**

#### **Header.js**

```
import React from 'react';

const Header = () => {
  return (
    <header>
      <h1>Microblogging App</h1>
    </header>
  );
};

export default Header
```

## UserCard.js

```
import React, { useState } from 'react';

const UserCard = ({ user, onFollowToggle }) => {
  const [isFollowing, setIsFollowing] = useState(false);

  const handleFollowToggle = () => {
    setIsFollowing(!isFollowing);
    onFollowToggle(user.id, !isFollowing);
  };

  return (
    <div className="user-card">
      <h3>{user.name}</h3>
      <p>{user.bio}</p>
      <button onClick={handleFollowToggle}>
        {isFollowing ? 'Unfollow' : 'Follow'}
      </button>
    </div>
  );
};

export default UserCard;
```

## PostCard.js

```
import React from 'react';

const PostCard = ({ post }) => {
  return (
    <div className="post-card">
      <h3>{post.title}</h3>
      <p>{post.content}</p>
      <p>By {post.author}</p>
    </div>
  );
};

export default PostCard;
```

## Dashboard.js

```
import React, { useState } from 'react';
import UserCard from './UserCard';
import PostCard from './PostCard';

const Dashboard = () => {
  // Static data for users and posts
  const [users] = useState([
    { id: 1, name: 'John Doe', bio: 'Frontend Developer' },
    { id: 2, name: 'Jane Smith', bio: 'Backend Developer' },
  ]);

  const [posts] = useState([
    { id: 1, title: 'My First Post', content: 'Hello, world!', author: 'John Doe' },
    { id: 2, title: 'Exciting News', content: 'Just launched my new website!', author: 'Jane Smith' },
  ]);

  const [following, setFollowing] = useState([]);

  const handleFollowToggle = (userId, isFollowing) => {
    if (isFollowing) {
      setFollowing([...following, userId]);
    } else {
      setFollowing(following.filter((id) => id !== userId));
    }
  };

  return (
    <div className="dashboard">
      <h2>Dashboard</h2>
      <div className="user-list">
        {users.map((user) => (
          <UserCard
            key={user.id}
            user={user}
            onFollowToggle={handleFollowToggle}
          />
        ))}
      </div>
    
```

```

<h3>Posts</h3>
<div className="post-list">
  {posts
    .filter((post) => following.includes(users.find((user) => user.name === post.author.id)))
    .map((post) => (
      <PostCard key={post.id} post={post} />
    )));
  </div>
</div>
);

};

export default Dashboard;

```

## App.js

```

import React from 'react';
import './App.css';
import Header from './components/Header';
import Dashboard from './components/Dashboard';

const App = () => {
  return (
    <div className="app">
      <Header />
      <Dashboard />
    </div>
  );
};

export default App;

```

## App.css

```

.app {
  text-align: center;
  max-width: 800px;
  margin: 0 auto;
  padding: 20px;
}

```

```

header {
    background-color: #333;
    color: #fff;
    padding: 20px;
}

h1 {
    margin: 0;
}

.user-card {
    border: 1px solid #ccc;
    border-radius: 5px;
    padding: 10px;
    margin-bottom: 10px;
}

.post-card {
    border: 1px solid #ccc;
    border-radius: 5px;
    padding: 10px;
    margin-bottom: 20px;
}

```

## OUTPUT:

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under "UNTITLED (WORKSPACE)". It includes files like Home.js, Project.js, Header.js, UserCard.js, App.js, App.css, App.js, App.test.js, index.css, index.js, logo.svg, reportWebVitals.js, setupTests.js, .gitignore, package-lock.json, package.json, and README.md.
- Terminal:** Displays the command-line interface where the code has been compiled. The output includes:
  - "Compiled successfully!"
  - "You can now view twitter in the browser."
  - "Local: http://localhost:3000"
  - "On Your Network: http://172.20.6.187:3000"
  - A note: "Note that the development build is not optimized. To create a production build, use `npm run build`.
- Status Bar:** Shows the current line (Ln 21, Col 23), character count (Spaces: 2, LF: 1224, CSS: 1224), encoding (ENG IN), and date (29-08-2023).

**Microblogging App**

**Dashboard**

**John Doe**  
Frontend Developer  
[Follow](#)

**Jane Smith**  
Backend Developer  
[Follow](#)

**Posts**



**Microblogging App**

**Dashboard**

**John Doe**  
Frontend Developer  
[Unfollow](#)

**Jane Smith**  
Backend Developer  
[Follow](#)

**Posts**

**My First Post**  
Hello, world!

**Windows Taskbar**

**Microblogging App**

**Dashboard**

**John Doe**  
Frontend Developer  
[Unfollow](#)

**Jane Smith**  
Backend Developer  
[Unfollow](#)

**Posts**

**My First Post**  
Hello, world!  
By John Doe

**Exciting News**  
Just launched my new website!  
By Jane Smith

**Windows Taskbar**

**RESULT:**

Thus, the execution of create a simple micro blogging application using React was successfully create and executed.

<b>Ex No : 4</b>	<b>Create a food delivery website where users can order food from a particular restaurant listed in the website.</b>
<b>DATE :</b>	

### **AIM:**

To Create a food delivery website where users can order food from a particular restaurant listed in the website using ReactJS.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React app using create-react-app.

#### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of our food delivery website (RestaurantList, menu, card), create a separate .js file inside the components directory.

#### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about card information.

#### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

#### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

#### **Step 6: Testing**

- Run the development server (npm start) to see our food delivery website in the browser.

### **PROGRAM:**

#### **RestaurantList.js:**

```

import React, { useState } from 'react';
import Menu from './Menu';

const RestaurantList = () => {
  const restaurants = [
    { id: 1, name: 'Restaurant A', menu: ['Burger', 'Pizza', 'Pasta'] },
    { id: 2, name: 'Restaurant B', menu: ['Sushi', 'Tempura', 'Ramen'] },
  ];
  const [selectedRestaurant, setSelectedRestaurant] = useState(null);

  const handleRestaurantSelect = (restaurant) => {
    setSelectedRestaurant(restaurant);
  }
}

```

```

};

return (
<div>
<h2>Choose a Restaurant</h2>
<ul>
{restaurants.map((restaurant) => (
<li key={restaurant.id}>
<button onClick={() => handleRestaurantSelect(restaurant)}>
{restaurant.name}
</button>
</li>
))}
</ul>
{selectedRestaurant && <Menu menu={selectedRestaurant.menu} />}
</div>
);
};

export default RestaurantList;

```

### Menu.js:

```

import React, { useState } from 'react';
import Cart from './Cart';

const Menu = ({ menu }) => {
  const [cart, setCart] = useState([]);

  const addToCart = (item) => {
    setCart([...cart, item]);
  };

  return (
<div>
<h3>Menu</h3>
<ul>
{menu.map((item, index) => (
<li key={index}>
{item}
<button onClick={() => addToCart(item)}>Add to Cart</button>
</li>
))}
</ul>
<Cart cart={cart} />
</div>
);
};

export default Menu;

```

### Cart.js:

```
import React from 'react';

const Cart = ({ cart }) => {
  const calculateTotal = () => {
    const itemPrices = {
      Burger: 10,
      Pizza: 12,
      Pasta: 8,
      Sushi: 15,
      Tempura: 8,
      Ramen: 10,
    };
    return cart.reduce((total, item) => total + itemPrices[item], 0);
  };

  return (
    <div>
      <h3>Cart</h3>
      <ul>
        {cart.map((item, index) => (
          <li key={index}>{item}</li>
        ))}
      </ul>
      <p>Total: ${calculateTotal()}</p>
    </div>
  );
};

export default Cart;
```

### App.js:

```
import React from 'react';
import './App.css';
import RestaurantList from './components/RestaurantList';

function App() {
  return (
    <div className="app">
      <h1>Food Delivery App</h1>
      <RestaurantList />
    </div>
  );
}

export default App;
```

## OUTPUT:



### **Food Delivery App**

#### **Choose a Restaurant**

- [Restaurant A](#)
- [Restaurant B](#)



### **Food Delivery App**

#### **Choose a Restaurant**

- [Restaurant A](#)
- [Restaurant B](#)

#### **Menu**

- Burger [Add to Cart](#)
- Pizza [Add to Cart](#)
- Pasta [Add to Cart](#)

#### **Cart**

- Burger
- Pizza
- Pizza
- Pasta

Total: \$42



**Food Delivery App**

**Choose a Restaurant**

- Restaurant A
- Restaurant B

**Menu**

- Sushi [Add to Cart](#)
- Tempura [Add to Cart](#)
- Ramen [Add to Cart](#)

**Cart**

- Burger
- Pizza
- Pizza
- Pasta
- Sushi
- Tempura
- Ramen
- Ramen

Total: \$85



## RESULT:

Thus, the execution of create a food delivery website using React was successfully done and executed.

<b>Ex No : 5</b>	<b>Develop a classifieds web application to buy and sell used products.</b>
------------------	---

## **AIM:**

To develop a classifieds web application to buy and sell used products using ReactJS.

## **ALGORITHM:**

### **Step 1: Setup**

- Create a new React app using create-react-app.

### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of our buy and sell website (Header.js,ProductList.js), create a separate .js file inside the components directory.

### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about card information.

### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

### **Step 6: Testing**

- Run the development server (npm start) to see buy and sell website in the browser.

## **PROGRAM:**

### **Header.js**

```
import React from 'react';

const Header = () => {
  return (
    <header>
      <h1>Classifieds - Buy & Sell Used Products</h1>
    </header>
  );
};

export default Header;
```

## ProductList.js

```
import React, { useState } from 'react';

const ProductList = () => {
  const [products, setProducts] = useState([
    { id: 1, title: 'Used Laptop', description: 'Good condition, 1-year-old laptop for sale.', price: 300 },
    { id: 2, title: 'Old Smartphone', description: 'Selling a used smartphone in working condition.', price: 100 },
    // Add more products here...
  ]);

  return (
    <div className="product-list">
      <h2>Used Products Listing</h2>
      <ul>
        {products.map((product) => (
          <li key={product.id}>
            <h3>{product.title}</h3>
            <p>{product.description}</p>
            <p>Price: ${product.price}</p>
          </li>
        )));
      </ul>
    </div>
  );
};

export default ProductList;
```

## App.js

```
import React from 'react';
import './App.css';
import Header from './components/Header';
import ProductList from './components/ProductList';
const App = () => {
  return (
    <div className="app">
      <Header />
      <ProductList />
    </div>
  );
};

export default App;
```

## OUTPUT:

The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left lists files and folders: UNTITLED (WORKSPACE), website, food delivered, dashboard, online, web application, web, node\_modules, public, src, components, App.css, App.js, App.test.js, index.css, index.js, logo.svg, reportWebVitals.js, setupTests.js, .gitignore, package-lock.json, package.json, and README.md. The App.js file is open in the code editor, displaying the following code:

```
1 import React from 'react';
2 import './App.css';
3 import Header from './components/Header';
4 import ProductList from './components/ProductList';
5 const App = () => {
6   return (
7     <div className="app">
8       <Header />
9       <ProductList />
10    </div>
11  );
12};
13
14 export default App;
```

The Problems panel shows two issues: "Bundles the app into static files for production." and "Starts the test runner." The terminal below the problems panel displays commands: "npm test", "npm run eject", and "We suggest that you begin by typing: cd web". The status bar at the bottom right shows "Ln 14, Col 20" and "29-08-2023".



## Classifieds - Buy & Sell Used Products

### Used Products Listing

- Used Laptop

Good condition, 1-year-old laptop for sale.

Price: \$300

- Old Smartphone

Selling a used smartphone in working condition.

Price: \$100

Activate Windows  
Go to Settings to activate Windows.



## **RESULT:**

Thus, the execution of create a buy and sell used products website using react was successfully done and executed.

<b>EXP No : 6</b>	<b>Develop a leave management system for an organization where users can apply different types of leaves such as casual leave and medical leave. They also can view the available number of days</b>
<b>DATE :</b>	

### **AIM:**

To develop a leave management system for an organization where users can apply different types of leaves such as casual leave and medical leave, they also can view the available number of days using React.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React application with necessary components.
- Initialize leave balances for different types of leaves in the state.

#### **Step 2:LeaveApplication Component (LeaveApplication.js)**

- Render a form for applying for different types of leaves.
- Manage user input using state variables for selected leave type and days.
- Implement a submit button with a logic to handle leave application.

#### **Step 3:LeaveBalance Component (LeaveBalance.js)**

- Render the available leave balance for different types of leaves.
- Iterate through leave balance data and display each leave type along with its balance.

#### **Step 4:App Component (App.js):**

- Manage the overall application state.
- Create a function to handle leave application logic.
- Pass relevant data to LeaveApplication and LeaveBalance components.

#### **Step 5:Apply Leave Logic**

- When the user submits a leave application, validate the input.
- Check if the selected leave type exists and if the days are valid.
- If the conditions are met, update the leave balance accordingly.

### **PROGRAM:**

#### **LeaveApplication.js**

```
import React, { useState } from 'react';

const LeaveApplication = ({ leaveTypes, onApply }) => {
  const [selectedLeaveType, setSelectedLeaveType] = useState("");
  const [days, setDays] = useState("");

  const handleSubmit = () => {
    if (selectedLeaveType && days) {
      onApply(selectedLeaveType, days);
    }
  }
}

export default LeaveApplication;
```

```

        setSelectedLeaveType("");
        setDays("");
    }

    return (
        <div>
            <h2>Leave Application</h2>
            <div>
                <label>
                    Leave Type:
                    <select value={selectedLeaveType} onChange={(e) => setSelectedLeaveType(e.target.value)}>
                        <option value="">Select leave type</option>
                        {leaveTypes.map((type) => (
                            <option key={type} value={type}>
                                {type}
                            </option>
                        )))
                    </select>
                </label>
            </div>
            <div>
                <label>
                    Number of Days:
                    <input type="number" value={days} onChange={(e) => setDays(e.target.value)} />
                </label>
            </div>
            <button onClick={handleSubmit}>Apply</button>
        </div>
    );
};

export default LeaveApplication;

```

### LeaveBalance.js

```

import React from 'react';

const LeaveBalance = ({ leaveBalances }) => {
    return (
        <div>
            <h2>Leave Balance</h2>
            <div>
                {Object.keys(leaveBalances).map((leaveType) => (
                    <p key={leaveType}>
                        {leaveType}: {leaveBalances[leaveType]} days
                    </p>
                )))
            </div>
        </div>
    );
};

```

```
export default LeaveBalance;
```

## App.js

```
import React, { useState } from 'react';
import LeaveApplication from './components/LeaveApplication';
import LeaveBalance from './components/LeaveBalance';

const App = () => {
  const [leaveBalances, setLeaveBalances] = useState({
    casual: 10,
    medical: 7,
  });

  const applyLeave = (leaveType, days) => {
    if (leaveBalances[leaveType] >= days) {
      setLeaveBalances((prevBalances) => ({
        ...prevBalances,
        [leaveType]: prevBalances[leaveType] - days,
      }));
      alert('Leave applied successfully!');
    } else {
      alert('Insufficient leave balance.');
    }
  };

  const leaveTypes = Object.keys(leaveBalances);

  return (
    <div>
      <h1>Leave Management System</h1>
      <LeaveApplication leaveTypes={leaveTypes} onApply={applyLeave} />
      <LeaveBalance leaveBalances={leaveBalances} />
    </div>
  );
};

export default App;
```

## OUTPUT:



### Leave Management System

#### Leave Application

Leave Type:

Number of Days:

#### Leave Balance

casual: 10 days

medical: 7 days

Activate Windows  
Go to Settings to activate Windows.



### Leave Management System

#### Leave Application

Leave Type:

Number of Days:

casual  
medical

#### Leave Balance

casual: 10 days

medical: 7 days

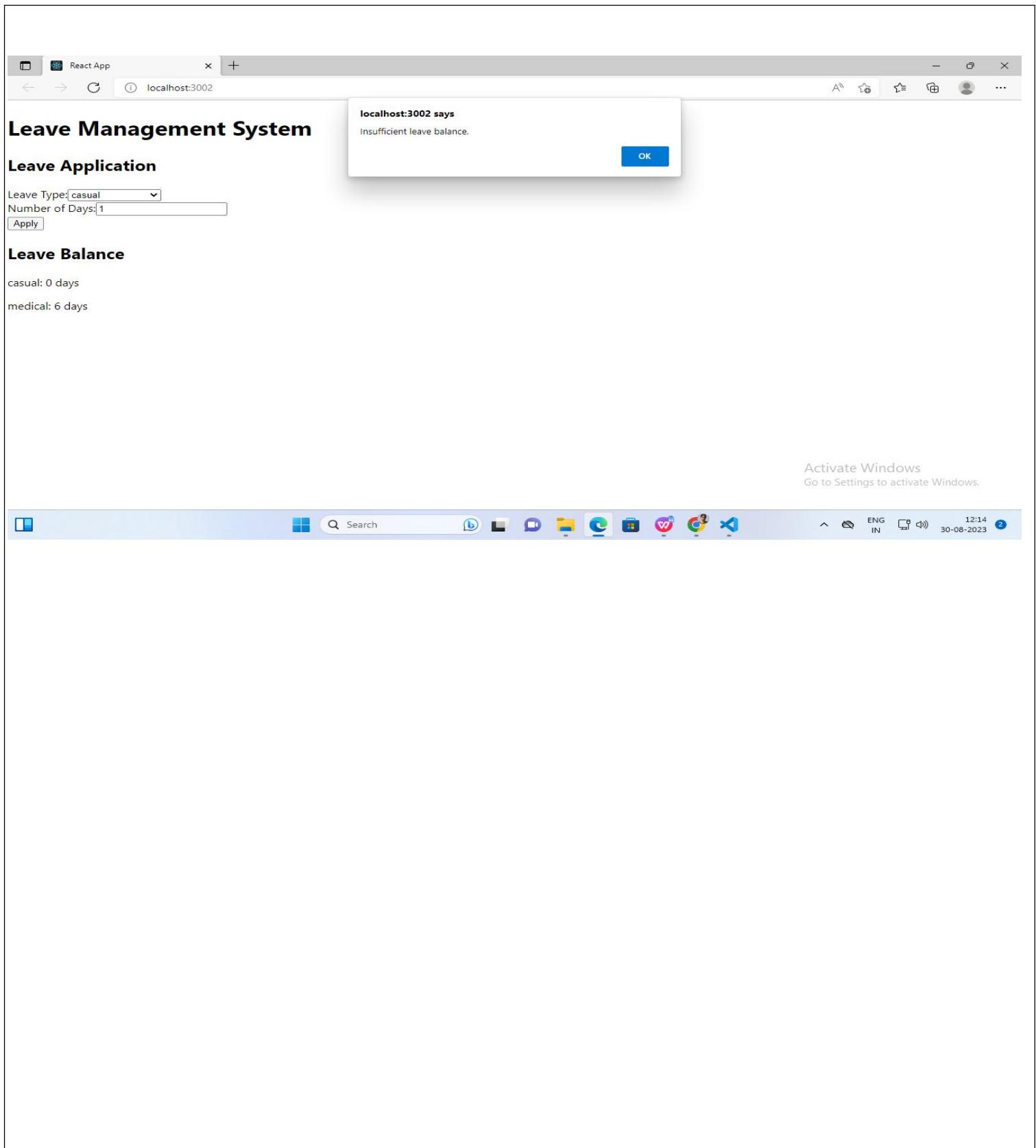
Activate Windows  
Go to Settings to activate Windows.



A screenshot of a web browser window titled "React App" showing the URL "localhost:3002". The main content is titled "Leave Management System". Under "Leave Application", there is a form with "Leave Type: casual" selected in a dropdown, "Number of Days: 2" entered in a text field, and an "Apply" button. A modal dialog box is displayed with the text "localhost:3002 says" and "Leave applied successfully!" with an "OK" button. The status bar at the bottom shows "Activate Windows Go to Settings to activate Windows." and a system tray with icons for file, search, and various applications.

A screenshot of a web browser window titled "React App" showing the URL "localhost:3002". The main content is titled "Leave Management System". Under "Leave Application", there is a form with "Leave Type: Select leave type" in a dropdown, "Number of Days: 2" entered in a text field, and an "Apply" button. The status bar at the bottom shows "Activate Windows Go to Settings to activate Windows." and a system tray with icons for file, search, and various applications.

A screenshot of a web browser window titled "React App" showing the URL "localhost:3002". The main content is titled "Leave Management System". Under "Leave Application", there is a form with "Leave Type: Select leave type" in a dropdown, "Number of Days: 2" entered in a text field, and an "Apply" button. The status bar at the bottom shows "Activate Windows Go to Settings to activate Windows." and a system tray with icons for file, search, and various applications. The date in the status bar is 30-08-2023.



## RESULT:

Thus the Development of leave management system for an organization was successfully done and executed.

<b>Ex No : 7</b>	<b>Develop a simple dashboard for project management where the statuses of various tasks are available. New tasks can be added and the status of existing tasks can be changed among Pending, InProgress or Completed.</b>
<b>DATE :</b>	

### **AIM:**

To develop a simple dashboard for project management where the statuses of various tasks are available and new tasks can be added and the status of existing tasks can be changed among Pending, InProgress or completed status will be displayed using ReactJS.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React app using create-react-app.

#### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of our dashboard(TaskForm,TaskList), create a separate .js file inside the components directory.

#### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about skills, experiences, projects, and contact information.

#### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

#### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

#### **Step 6: Testing**

- Run the development server (npm start) to see dashboard website in the browser.

### **PROGRAM:**

#### **TaskForm.js**

```
import React, { useState } from 'react';

const TaskForm = ({ onAddTask }) => {
  const [task, setTask] = useState("");
  const [project, setProject] = useState("");

  const handleSubmit = (e) => {
    e.preventDefault();
    if (task.trim() !== "" && project.trim() !== "") {
      onAddTask(task, project);
      setTask("");
      setProject("");
    }
  }
}

export default TaskForm;
```

```

        }
    };

    return (
        <div>
            <h2>Add New Task</h2>
            <form onSubmit={handleSubmit}>
                <input
                    type="text"
                    value={task}
                    onChange={(e) => setTask(e.target.value)}
                    placeholder="Enter new task..." />
                <input
                    type="text"
                    value={project}
                    onChange={(e) => setProject(e.target.value)}
                    placeholder="Enter project name..." />
                <button type="submit">Add Task</button>
            </form>
        </div>
    );
};

export default TaskForm;

```

## TaskList.js

```

import React from 'react';

const TaskList = ({ tasks, onStatusChange }) => {
    return (
        <div>
            <h2>Task List</h2>
            <ul>
                {tasks.map((task, index) => (
                    <li key={index} className={task.status.toLowerCase()} onClick={() => onStatusChange(index)}>
                        {task.description} - {task.project} ({task.status})
                    </li>
                )));
            </ul>
        </div>
    );
};

export default TaskList;

```

## App.js

```
import React, { useState } from 'react';
import './App.css';
import TaskForm from './Components/TaskForm';
import TaskList from './Components/TaskList';

const App = () => {
  const [tasks, setTasks] = useState([]);

  const addTask = (description, project) => {
    setTasks([...tasks, { description, project, status: 'Pending' }]);
  };

  const changeStatus = (index) => {
    const newTasks = [...tasks];
    const task = newTasks[index];

    switch (task.status) {
      case 'Pending':
        task.status = 'InProgress';
        break;
      case 'InProgress':
        task.status = 'Completed';
        break;
      case 'Completed':
        task.status = 'Pending';
        break;
      default:
        break;
    }

    setTasks(newTasks);
  };

  return (
    <div className="App">
      <h1>Task Management System</h1>
      <TaskForm onAddTask={addTask} />
      <TaskList tasks={tasks} onStatusChange={changeStatus} />
    </div>
  );
};

export default App;
```

## App.css

```
.App {  
    text-align: center;  
    margin: 20px;  
}  
  
h1 {  
    color: #007bff;  
}  
  
form {  
    margin-bottom: 20px;  
}  
  
button {  
    margin-top: 10px;  
}  
  
ul {  
    list-style-type: none;  
    padding: 0;  
}  
  
li {  
    margin: 5px;  
    display: flex;  
    justify-content: space-between;  
    background-color: #f0f0f0;  
    padding: 5px;  
    cursor: pointer;  
}  
  
.completed {  
    background-color: #b3ffb3;  
}  
  
.in-progress {  
    background-color: #ffffb3;
```

## RESULT:

Thus, the Development of simple dashboard for project management was successfully done and executed.



<b>Ex No : 8</b>	<b>Develop an online survey application where a collection of questions is available and users are asked to answer any random 5 questions.</b>
<b>DATE :</b>	

### **AIM:**

To develop an online survey application where a collection of questions is available and users are asked to answer any random 5 questions using ReactJS.

### **ALGORITHM:**

#### **Step 1: Setup**

- Create a new React app using create-react-app.

#### **Step 2: Component Creation**

- Inside the src folder, create a components directory.
- For each section of online survey application (Question), create a separate .js file inside the components directory.

#### **Step 3: Component Content**

- Define the content for each component using JSX.
- Add details about skills, experiences, projects, and contact information.

#### **Step 4: Styling**

- Create corresponding .css files for each component or use a CSS-in-JS approach.
- Apply styling to achieve the desired visual appearance for each section.

#### **Step 5: Integrate Components**

- In the App.js file, import the components you've created.
- Render each component within the return statement of the App component.

#### **Step 6: Testing**

- Run the development server (npm start) to see online survey website in the browser.

### **PROGRAM:**

#### **Question.js**

```
import React from 'react';

const Question = ({ question, onAnswer }) => {
  return (
    <div>
      <h3>{question.text}</h3>
      <div>
        {question.options.map((option, index) => (
          <div key={index}>
            <input
              type="radio"
              id={option}
              name={question.id}
              value={option}
              onChange={() => onAnswer(question.id, option)}>
          </div>
        ))
      </div>
    </div>
  );
}

export default Question;
```

```

        />
      <label htmlFor={option}>{option}</label>
    </div>
  )})
</div>
</div>
);
};

export default Question;

```

## App.js

```

import React, { useState } from 'react';
import './App.css';
import Question from './Components/Question';

const App = () => {
  const [answers, setAnswers] = useState([]);
  const [questions] = useState([
    {
      id: 1,
      text: 'What is your favorite color?',
      options: ['Red', 'Green', 'Blue', 'Yellow', 'Other'],
    },
    {
      id: 2,
      text: 'Which programming language do you prefer?',
      options: ['JavaScript', 'Python', 'Java', 'C++', 'Other'],
    },
    {
      id: 3,
      text: 'What is your favorite animal?',
      options: ['Dog', 'Cat', 'Elephant', 'Dolphin', 'Other'],
    },
    {
      id: 4,
      text: 'How do you like to spend your weekends?',
      options: ['Reading', 'Watching Movies', 'Outdoor Activities', 'Gaming', 'Other'],
    },
    {
      id: 5,
      text: 'What type of music do you enjoy?',
      options: ['Pop', 'Rock', 'Classical', 'Hip Hop', 'Other'],
    },
  ]);
}

const handleAnswer = (questionId, option) => {
  const updatedAnswers = answers.filter((answer) => answer.questionId !== questionId);
  setAnswers([...updatedAnswers, { questionId, option }]);
};

return (

```

```

<div className="App">
  <h1>Online Survey Application</h1>
  <div>
    {questions.map((question) => (
      <Question key={question.id} question={question} onAnswer={handleAnswer} />
    )));
  </div>
  <h2>Your answers:</h2>
  <ul>
    {answers.map((answer, index) => (
      <li key={index}>
        Question {answer.questionId}: {answer.option}
      </li>
    )));
  </ul>
  </div>
);
};

export default App;

```

### App.css

```

.App {
  text-align: center;
  margin: 20px;
}

h1 {
  color: #007bff;
}

ul {
  list-style-type: none;
  padding: 0;
}

li {
  margin: 5px;
}

label {
  margin-right: 5px;
}

```

## **OUTPUT:**

The screenshot shows a Visual Studio Code interface with the following details:

- File Explorer (Left):** Shows the project structure with files like `TaskForm.js`, `TaskList.js`, `App.js`, `Question.js`, `App.css`, `index.css`, `index.js`, `logo.svg`, `reportWebVitals.js`, `setupTests.js`, `.gitignore`, `package-lock.json`, `package.json`, and `README.md`.
- Editor (Center):** Displays the `App.js` file content, which defines a component that asks for favorite color and programming language.
- Terminal (Bottom):** Shows the output of a build command: "Compiled successfully!" followed by local and network URLs: "Local: http://localhost:3005" and "On Your Network: http://172.20.6.187:3005". It also shows the message "webpack compiled successfully".
- Status Bar (Bottom):** Shows the current position as "Ln 10, Col 44", the number of spaces as "Spaces: 2", the encoding as "UTF-8", the line separator as "LF", the file type as "JavaScript", and the date/time as "29-08-2023 14:43".

React App

localhost:3005

## Online Survey Application

**What is your favorite color?**

Red  
 Green  
 Blue  
 Yellow  
 Other

**Which programming language do you prefer?**

JavaScript  
 Python  
 Java  
 C++  
 Other

**What is your favorite animal?**

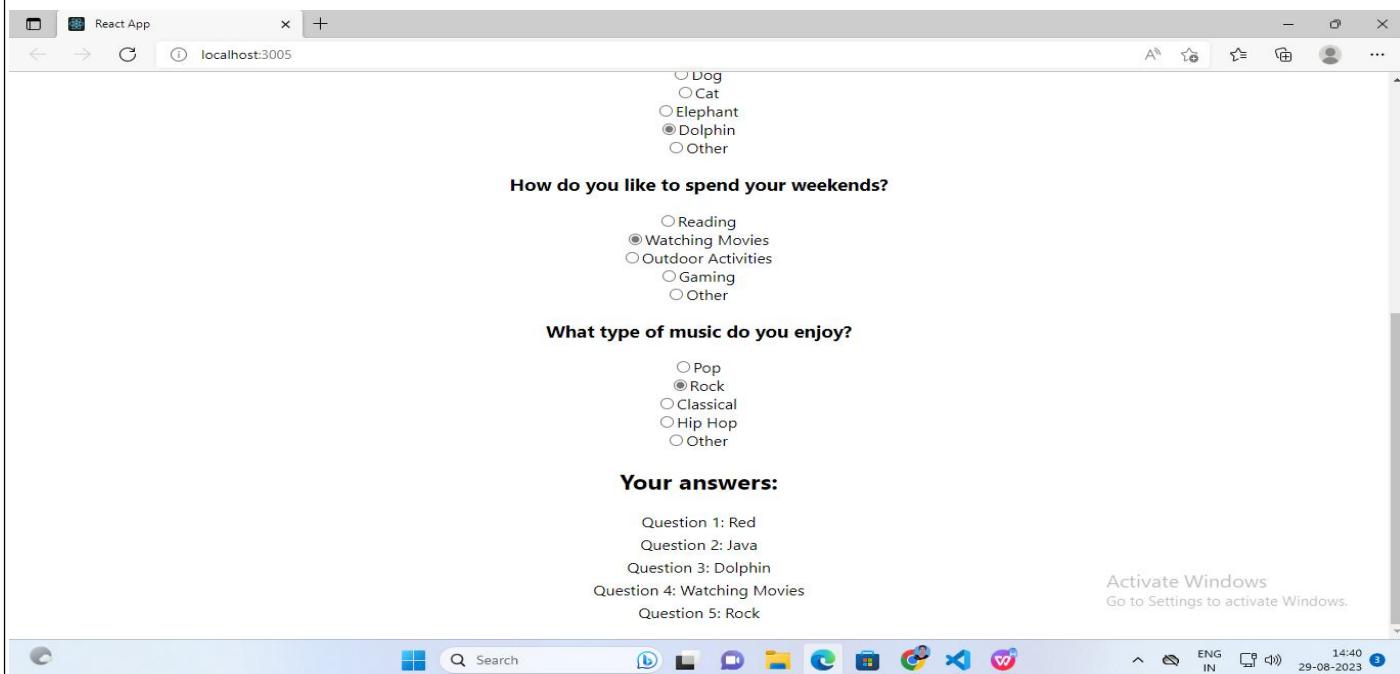
Dog  
 Cat  
 Elephant  
 Dolphin  
 Other

**How do you like to spend your weekends?**

Reading

Activate Windows  
Go to Settings to activate Windows.

14:39 29-06-2023



## RESULT:

Thus, the Development of Online Survey application was successfully done and executed.

