

9. ReactJS-HOL

Create a React Application named “cricketapp” with the following components:

1. ListofPlayers

- Declare an array with 11 players and store details of their names and scores using the map feature of ES6

```
return(  
  players.map((item)=>  
  {  
    return(  
      <div>  
        <li>Mr. {item.name}<span> {item.score} </span></li>  
      </div>  
    )));
  )
```

- Filter the players with scores below 70 using arrow functions of ES6.

```
return(  
  players.map((item)=>  
  {  
    if(item.score<=70)  
    {  
      players70.push(item);  
    }  
  });
)
```

2. IndianPlayers

- a. Display the Odd Team Player and Even Team players using the Destructuring features of ES6

```
export function OddPlayers([first,, third,,fifth]) {
  return(
    <div>
      <li> First : {first} </li>
      <li> Third : {third} </li>
      <li> Fifth : {fifth}</li>
    </div>)}
  
```

- b. Declare two arrays T20players and RanjiTrophy players and merge the two arrays and display them using the Merge feature of ES6

```
const T20Players=['First Player','Second Player','Third Player'];
const RanjiTrophyPlayers=['Fourth Player','Fifth Player','Sixth Player'];
export const IndianPlayers=[...T20Players, ...RanjiTrophyPlayers]
```

Display these two components in the same home page using a simple if else in the flag variable.

Output:

When Flag=true

The screenshot shows a browser window with the title "React App". The URL bar shows "localhost:3000". The main content area displays two sections of data. The first section is titled "List of Players" and contains a bulleted list of ten names and their scores: Mr. Jack 50, Mr. Michael 70, Mr. John 40, Mr. Ann 61, Mr. Elisabeth 61, Mr. Sachin 95, Mr. Dhoni 100, Mr. Virat 84, Mr. Jadeja 64, Mr. Raina 75, and Mr. Rohit 80. The second section is titled "List of Players having Scores Less than 70" and contains a shorter bulleted list of five names and their scores: Mr. Jack 50, Mr. Michael 70, Mr. John 40, Mr. Ann 61, and Mr. Jadeja 64.

List of Players

- Mr. Jack 50
- Mr. Michael 70
- Mr. John 40
- Mr. Ann 61
- Mr. Elisabeth 61
- Mr. Sachin 95
- Mr. Dhoni 100
- Mr. Virat 84
- Mr. Jadeja 64
- Mr. Raina 75
- Mr. Rohit 80

List of Players having Scores Less than 70

- Mr. Jack 50
- Mr. Michael 70
- Mr. John 40
- Mr. Ann 61
- Mr. Jadeja 64

When Flag=false

Odd Players

- First : Sachin1
- Third : Virat3
- Fifth : Yuvaraj5

Even Players

- Second : Dhoni2
- Fourth : Rohit4
- Sixth : Raina6

List of Indian Players Merged:

- Mr. First Player
- Mr. Second Player
- Mr. Third Player
- Mr. Fourth Player
- Mr. Fifth Player
- Mr. Sixth Player

Hint:

```
var flag=true;
if(flag==true)
{
    return(
        <div>
            <h1> List of Players</h1>
            <ListofPlayers players={players}/>
            <hr/>
            <h1> List of Players having Scores Less than 70 </h1>
            <Scorebelow70 players={players}/>
        </div>
    )
}
else{
    return(
        <div>
            <div>
                <h1> Indian Team </h1>
                <h1> Odd Players </h1>
                {OddPlayers(IndianTeam)}
                <hr/>
                <h1> Even Players</h1>
                {EvenPlayers(IndianTeam)}
            </div>
            <hr/>
            <div>
                <h1> List of Indian Players Merged:</h1>
                <ListofIndianPlayers IndianPlayers={IndianPlayers}/>
            </div>
            </div>
        )
}
```

SOLUTION

1. Create a `cricketapp` by running `npm create vite@latest`

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npm create vite@latest
Need to install the following packages:
create-vite@7.0.3
Ok to proceed? (y) y

npm warn EBADENGINE Unsupported engine {
npm warn EBADENGINE   package: 'create-vite@7.0.3',
npm warn EBADENGINE   required: { node: '^20.19.0 || >=22.12.0' },
npm warn EBADENGINE   current: { node: 'v22.11.0', npm: '10.9.2' }
npm warn EBADENGINE }

> npx
> create-vite

diamond Project name:
  cricketapp

diamond Select a framework:
  React

diamond Select a variant:
  JavaScript

diamond Scaffolding project in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\cricketapp...

Done. Now run:

cd cricketapp
npm install
npm run dev

npm notice
npm notice New major version of npm available! 10.9.2 -> 11.5.1
npm notice Changelog: https://github.com/npm/cli/releases/tag/v11.5.1
npm notice To update run: npm install -g npm@11.5.1
npm notice
```

```
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\cricketapp> npm i
npm warn EBADENGINE Unsupported engine {
npm warn EBADENGINE   package: 'vite@7.0.6',
npm warn EBADENGINE   required: { node: '^20.19.0 || >=22.12.0' },
npm warn EBADENGINE   current: { node: 'v22.11.0', npm: '10.9.2' }
npm warn EBADENGINE }

added 152 packages, and audited 153 packages in 3m

33 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
diamond PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\cricketapp>
```

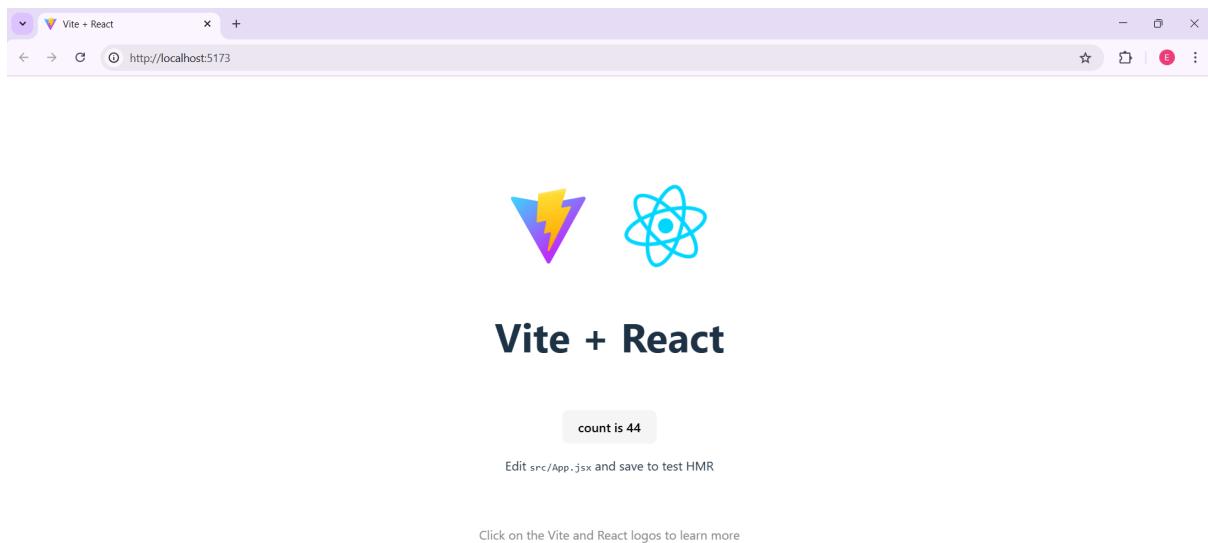
2. Start the server by `npm run dev`

```
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> cd cricketapp
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\cricketapp> npm run dev

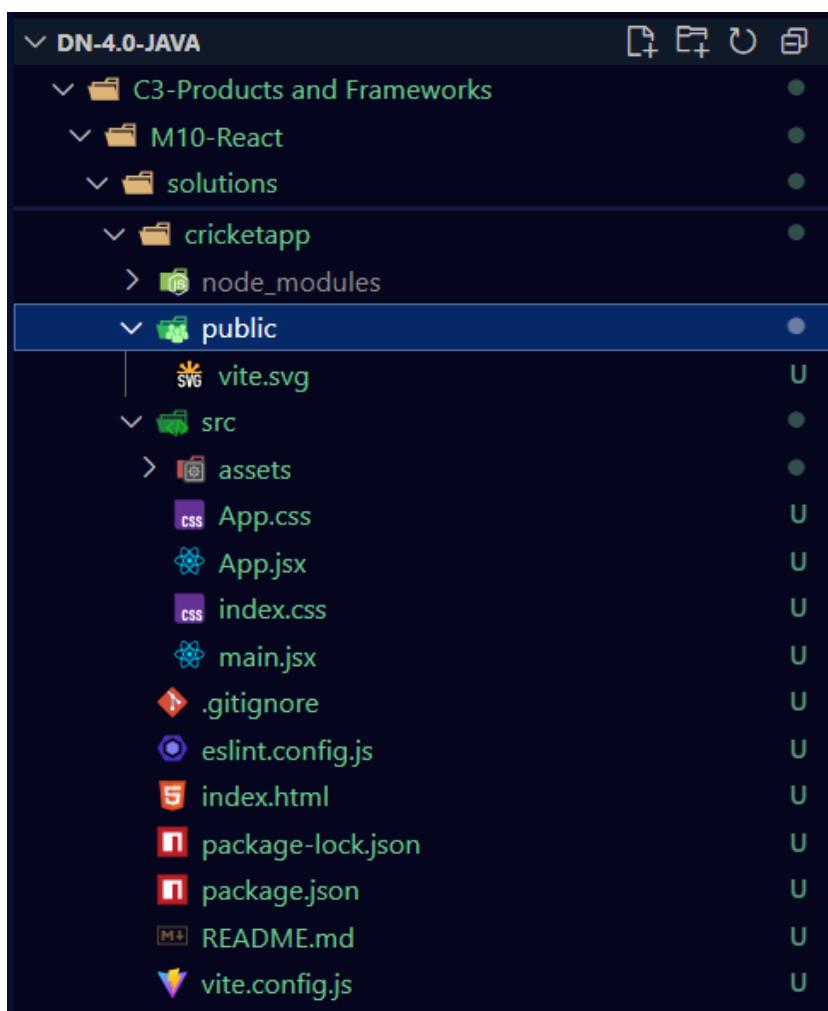
> cricketapp@0.0.0 dev
> vite

VITE v7.0.6 ready in 719 ms
  → Local: http://localhost:5173/
●  → Network: use --host to expose
  → press h + enter to show help
diamond
```

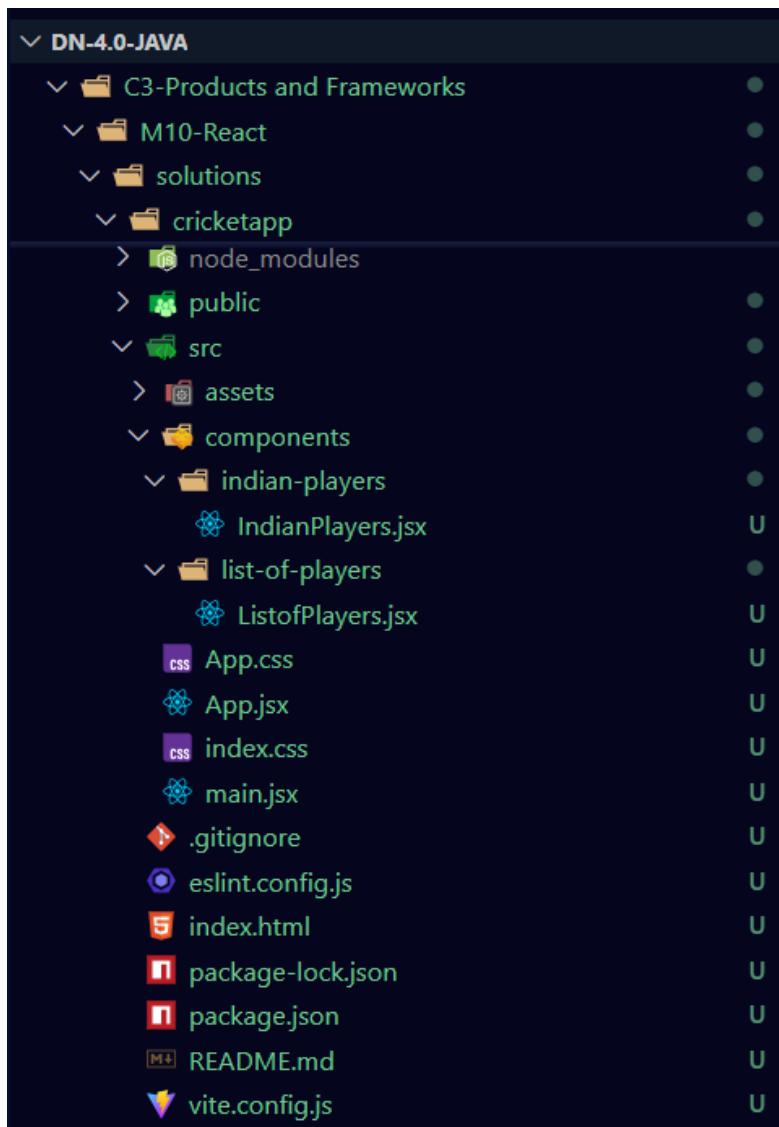
3. The default page when we run the server



4. Folder structure of the cricketapp



5. Create the components : IndianPlayers.jsx and ListofPlayers.jsx



6. Code for ListofPlayers.jsx

```
function ListofPlayers() {
  const players = [
    { name: "Athena", score: 88 },
    { name: "Calliope", score: 92 },
    { name: "Selene", score: 65 },
    { name: "Thalia", score: 74 },
    { name: "Daphne", score: 58 },
    { name: "Iris", score: 79 },
    { name: "Lyra", score: 85 },
    { name: "Phoebe", score: 63 },
    { name: "Elektra", score: 95 },
    { name: "Theia", score: 70 },
    { name: "Chloe", score: 61 },
```

```

];
const playersBelow70 = players.filter((player) => player.score <= 70)

return (
  <>
    <h1>List of Players</h1>

    <ul>
      {
        players.map((player,i) => {
          return (<li key = {i}>
            Ms. {player.name}      <span>{player.score}</span>
          </li>)

        })
      }
    </ul>

    <hr />

    <h1>List of Players having Scores Less than 70</h1>
    <ul>
      {
        playersBelow70.map((player, index) => {
          return(<li key = {index}>
            Ms. {player.name}      <span>{player.score}</span>
          </li>)

        })
      }
    </ul>
  </>
)
}

export default ListofPlayers;

```

7. Code for IndianPlayers.jsx

```

function OddPlayers({players : [first, , third, , fifth]}) {
  return (
    <div>
      <li>First: {first}</li>
      <li>Third: {third}</li>
    </div>
  )
}

```

```
        <li>Fifth: {fifth}</li>
    </div>
)
}

function EvenPlayers({players : [, second, , fourth, , sixth]}) {
    return (
        <div>
            <li>Second: {second}</li>
            <li>Fourth: {fourth}</li>
            <li>Sixth: {sixth}</li>
        </div>
    )
}

const T20Players = ['Ian 1', 'Ira 2'];
const RanjiTrophyPlayers = ['Amanda 3', 'Chacelseoa 4', 'Buck 5', 'Prayaya 6'];

function IndianPlayers() {
    const allPlayers = [...T20Players, ...RanjiTrophyPlayers]

    return(
        <>
            <h1>Odd Players</h1>
            <OddPlayers players={allPlayers} />

            <hr/>

            <h1>Even Players</h1>
            <EvenPlayers players={allPlayers} />

            <hr/>
            <h1>List of Indian Players Merged</h1>
            <ul>
            {
                allPlayers.map((player, index) => {
                    return (
                        <li key = {index}>{player}</li>
                    )
                })
            }
            </ul>

        </>
    )
}
```

```
export default IndianPlayers;
```

8. Code for App.jsx

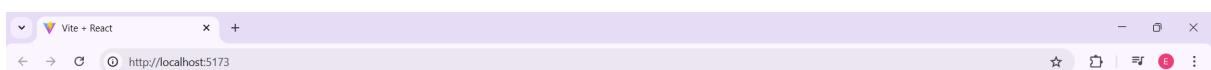
```
import ListofPlayers from './components/list-of-players/ListofPlayers'
import IndianPlayers from './components/indian-players/IndianPlayers'

function App() {

let flag = false
  return(
    <>
      {flag ? <ListofPlayers /> : <IndianPlayers />}
    </>
  )
}

export default App
```

9. Output at <http://localhost:5173> when flag == true



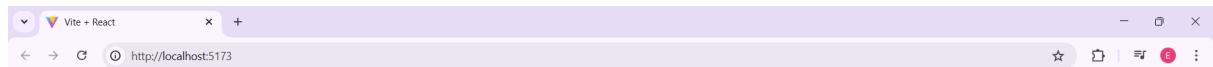
List of Players

- Ms. Athena 88
- Ms. Calliope 92
- Ms. Selene 65
- Ms. Thalia 74
- Ms. Daphne 58
- Ms. Iris 79
- Ms. Lyra 85
- Ms. Phoebe 63
- Ms. Elektra 95
- Ms. Theia 70
- Ms. Chloe 61

List of Players having Scores Less than 70

- Ms. Selene 65
- Ms. Daphne 58
- Ms. Phoebe 63
- Ms. Theia 70
- Ms. Chloe 61

10. Output at <http://localhost:5173> when flag == false



Odd Players

- First: Ian 1
- Third: Amanda 3
- Fifth: Buck 5

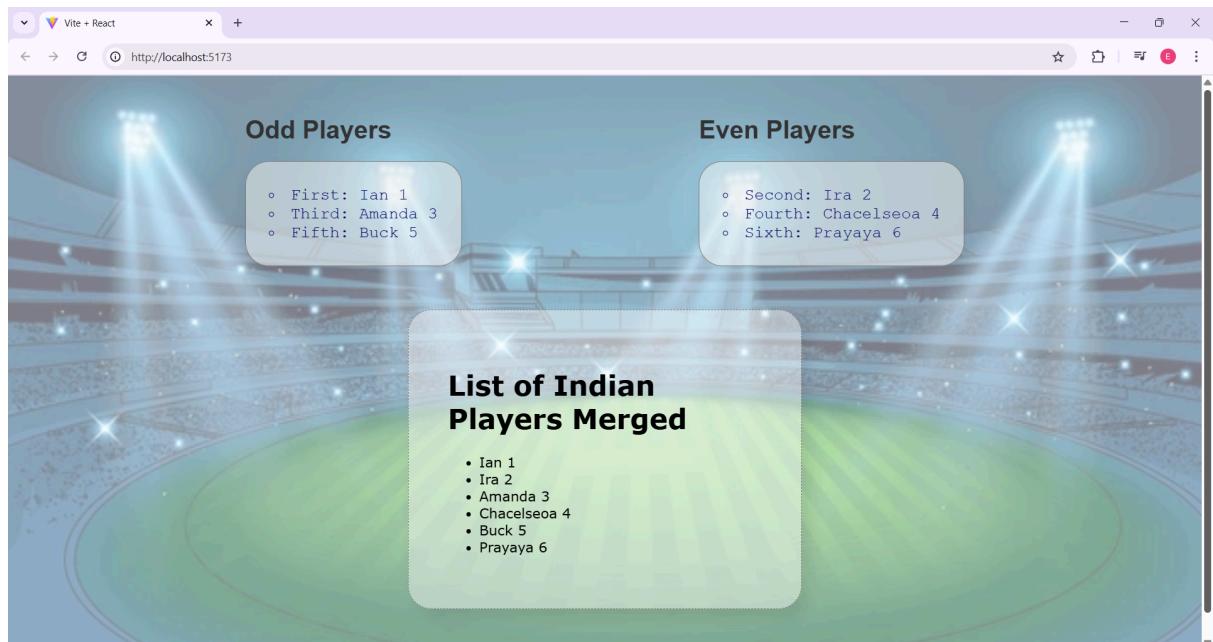
Even Players

- Second: Ira 2
- Fourth: Chacelseoa 4
- Sixth: Prayaya 6

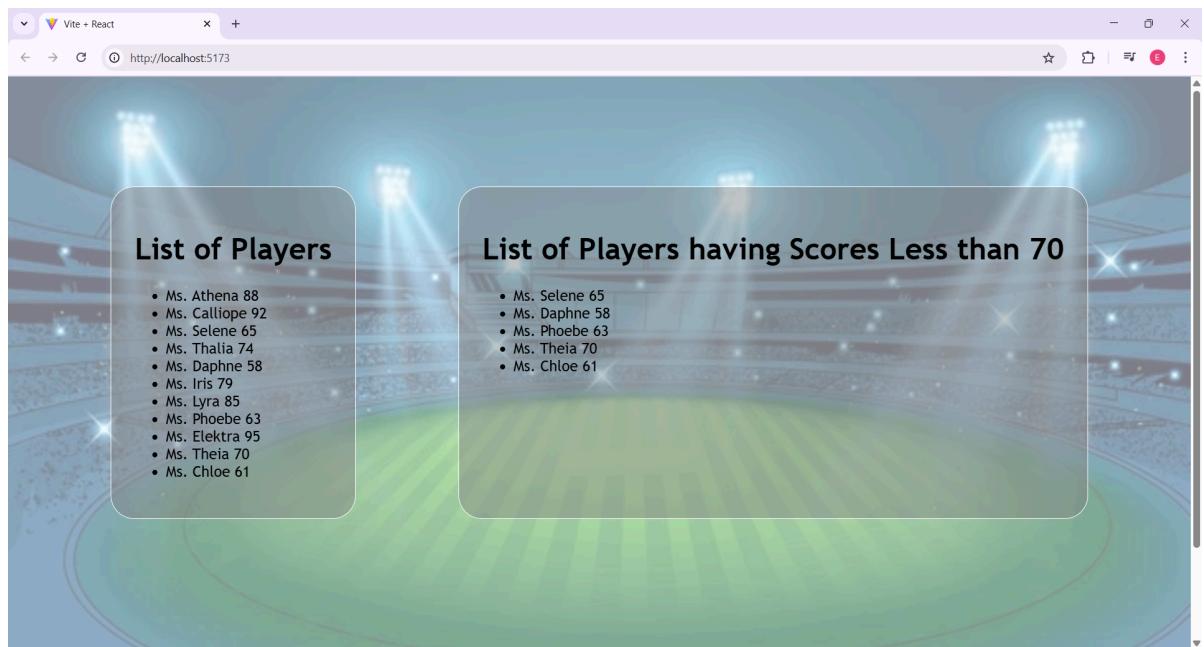
List of Indian Players Merged

- Ian 1
- Ira 2
- Amanda 3
- Chacelseoa 4
- Buck 5
- Prayaya 6

11. Adding additional styles – Output when flag is set to false



12. Adding additional styles - Output when flag is set to true



13. Complete Code of `ListofPlayers.jsx`

```
import './ListofPlayers.css';

function ListofPlayers() {
  const players = [
    { name: "Athena", score: 88 },
    { name: "Calliope", score: 92 },
    { name: "Selene", score: 65 },
    { name: "Thalia", score: 74 },
    { name: "Daphne", score: 58 },
    { name: "Iris", score: 79 },
    { name: "Lyra", score: 85 },
    { name: "Phoebe", score: 63 },
    { name: "Elektra", score: 95 },
    { name: "Theia", score: 70 },
    { name: "Chloe", score: 61 },
  ];

  const playersBelow70 = players.filter((player) => player.score <= 70);

  return (
    <div className="players">
      <div className="all-players">
        <h1>List of Players</h1>

        <ul>
          {players.map((player, i) => {
```

```

        return (
          <li key={i}>
            Ms. {player.name} <span>{player.score}</span>
          </li>
        );
      )}
    </ul>
  </div>

<div className="scored">
  <h1>List of Players having Scores Less than 70</h1>
  <ul>
    {playersBelow70.map((player, index) => {
      return (
        <li key={index}>
          Ms. {player.name} <span>{player.score}</span>
        </li>
      );
    )}
  </ul>
</div>
</div>
);
}

export default ListofPlayers;

```

14. Complete Code of IndianPlayers.jsx

```

import "./IndianPlayers.css";

function OddPlayers({ players: [first, , third, , fifth] }) {
  return (
    <div className="odd-players">
      <li>First: {first}</li>
      <li>Third: {third}</li>
      <li>Fifth: {fifth}</li>
    </div>
  );
}

function EvenPlayers({ players: [, second, , fourth, , sixth] }) {
  return (
    <div className="even-players">
      <li>Second: {second}</li>

```

```
        <li>Fourth: {fourth}</li>
        <li>Sixth: {sixth}</li>
    </div>
)
}

const T20Players = ["Ian 1", "Ira 2"];
const RanjiTrophyPlayers = ["Amanda 3", "Chacelseoa 4", "Buck 5", "Prayaya 6"];

function IndianPlayers() {
    const allPlayers = [...T20Players, ...RanjiTrophyPlayers];

    return (
        <>
        <div className="ind-players">
            <div className="left">
                <h1>Odd Players</h1>
                <OddPlayers players={allPlayers} />
            </div>

            <div className="right">
                <h1>Even Players</h1>
                <EvenPlayers players={allPlayers} />
            </div>
        </div>

        <br /><br /><br />

        <div className="indian-players">
            <h1>List of Indian Players Merged</h1>
            <ul>
                {allPlayers.map((player, index) => {
                    return <li key={index}>{player}</li>;
                })}
            </ul>
        </div>
    </>
)
};

export default IndianPlayers;
```

15. Complete Code of `App.jsx`

```
import './App.css'
import ListofPlayers from './components/list-of-players/ListofPlayers'
import IndianPlayers from './components/indian-players/IndianPlayers'

function App() {

let flag = true
  return(
    <>
      {flag ? <ListofPlayers /> : <IndianPlayers />}
    </>
  )
}

export default App
```

16. Complete Code of `ListofPlayers.css`

```
.players {
  display: flex;
  justify-content : space-evenly;
  margin: auto;
  margin-top : 140px;
}

.all-players, .scored {
  background-color: rgba(128, 128, 128, 0.43);
  border: 1px solid white;
  padding: 30px;
  border-radius: 30px;
  font-family: 'Trebuchet MS', 'Lucida Sans Unicode', 'Lucida Grande',
'Lucida Sans', Arial, sans-serif;
  font-size: 1.2rem
}
```

17. Complete Code of `IndianPlayers.css`

```

.odd-players, .even-players {
    background-color:hsla(0, 0%, 94%, 0.526);
    width : fit-content;
    padding : 30px;
    border: 1px solid gray;
    box-shadow: 0 10px 20px rgba(0, 0, 0, 0.1);
    border-radius: 30px;
    color: rgb(15, 15, 110);
    font-family: 'Courier New', Courier, monospace;
    font-size: 1.3rem;
    list-style-type: circle;
}

.ind-players {
    display: flex;
    flex-direction: row;
    justify-content: space-evenly;
    align-items: center;
    margin-top: 30px;
}

.ind-players h1 {
    font-size: 2rem;
    color : #333;
    font-family: Arial, Helvetica, sans-serif;
}

.indian-players {
    background-color: hsla(0, 0%, 100%, 0.419);
    font-family: Verdana, Geneva, Tahoma, sans-serif;
    list-style: outside;
    font-size: 1.1rem;
    width: 400px;
    margin: auto;
    padding: 50px;
    border-radius: 30px;
    border: 1px dashed gray;
    box-shadow: 10px 10px 20px rgba(0, 0, 0, 0.1);
}

```

18. Complete Code of [App.css](#)

```

body {
    position: relative;
    margin: 0;
}

```

```
padding: 0;
min-height: 100vh;
font-family: sans-serif;
}

body::before {
  content: "";
  background-image:
url('https://www.shutterstock.com/image-vector/night-cricket-stadium-illustration-vector-600nw-2160100275.jpg');
  background-size: cover;
  background-repeat: no-repeat;
  background-position: center;
  position: fixed;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
  opacity: 0.5;
  z-index: -1;
}
```

10. ReactJS-HOL

Create a React Application named “officespaceentalapp” which uses React JSX to create elements, attributes and renders DOM to display the page.

Create an element to display the heading of the page.

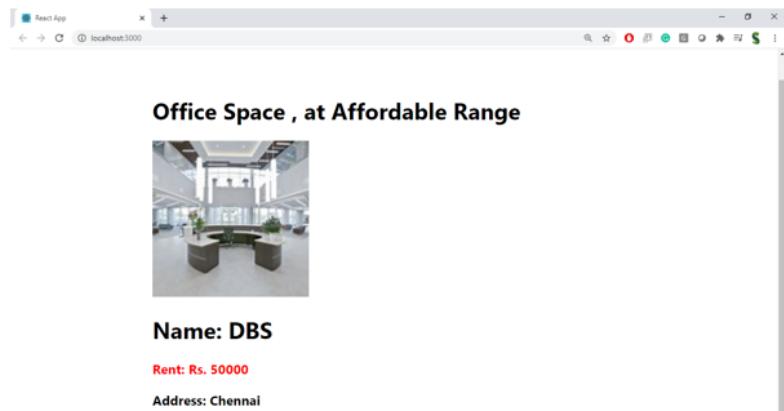
Attribute to display the image of the office space

Create an object of office to display the details like Name, Rent and Address.

Create a list of Object and loop through the office space item to display more data.

To apply Css, Display the color of the Rent in Red if it's below 60000 and in Green if it's above 60000.

Output:



Hint:

```
{  
  let colors=[];  
  if(itemName.Rent<=60000)  
  {  
    colors.push('textRed');  
  }  
  else{  
    colors.push('textGreen');  
  }  
}
```

```
const element="Office Space"  
const jsxatt=<img src={sr} width="25%" height="25%" alt="Office Space"/>  
const itemName={Name:"DBS", Rent: 50000, Address:'Chennai'}  
<h1>{element} , at Affordable Range </h1>  
<{jsxatt}>  
<h1>Name: {itemName.Name}</h1>  
<h3> Rent: Rs. {itemName.Rent}</h3>  
<h3> Address: {itemName.Address}</h3>
```

SOLUTION

1. Create `officespacentalapp` by using `npx create-react-app officespacentalapp`

```
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app officespacentalapp
● Creating a new React app in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\officespacentalapp
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app officespacentalapp
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app officespacentalapp

Creating a new React app in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\officespacentalapp.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1323 packages in 2m

269 packages are looking for funding
  run `npm fund` for details

Installing template dependencies using npm...
added 17 packages, and changed 1 package in 13s

269 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1340 packages in 6s

269 packages are looking for funding
  run `npm fund` for details
  9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
```

```
Run `npm audit` for details.

Success! Created officespacentalapp at D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\officespacentalapp
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd officespacentalapp
  npm start

Happy hacking!
```

2. Start the server by `npm start`

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> cd officespacentalapp
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\officespacentalapp> npm start

> officespacentalapp@0.1.0 start
> react-scripts start

(node:20820) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
(Use `node --trace-deprecation ...` to show where the warning was created)
(node:20820) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
● Starting the development server...
Compiled successfully!

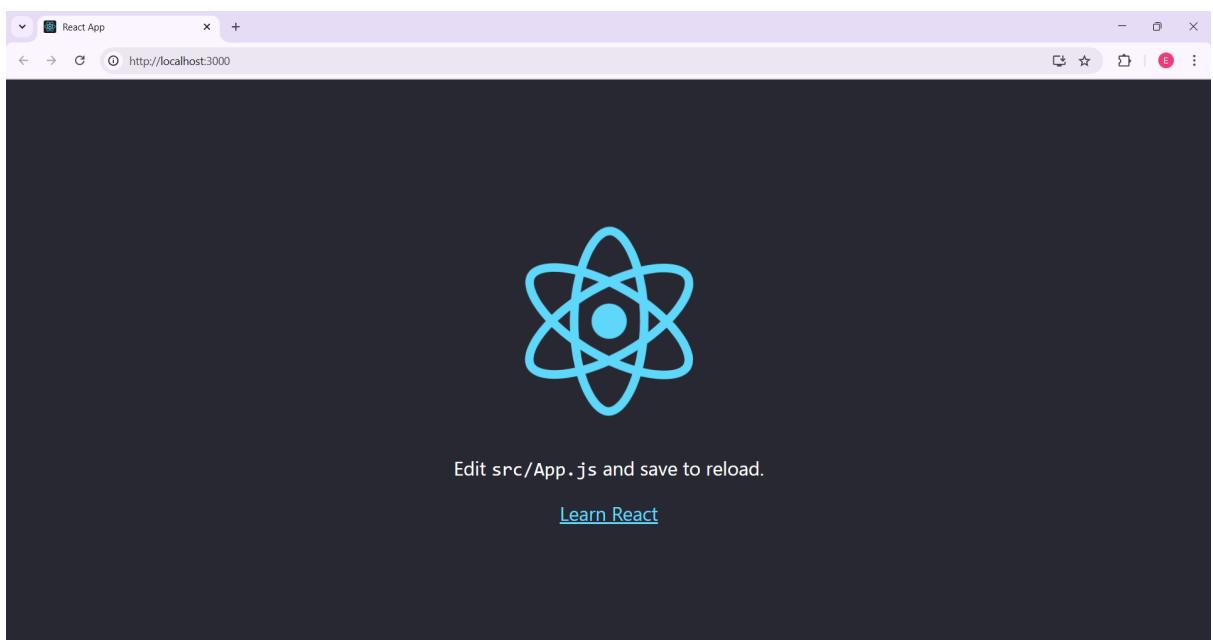
You can now view officespacentalapp in the browser.

  Local:          http://localhost:3000
  On Your Network: http://192.168.0.6:3000

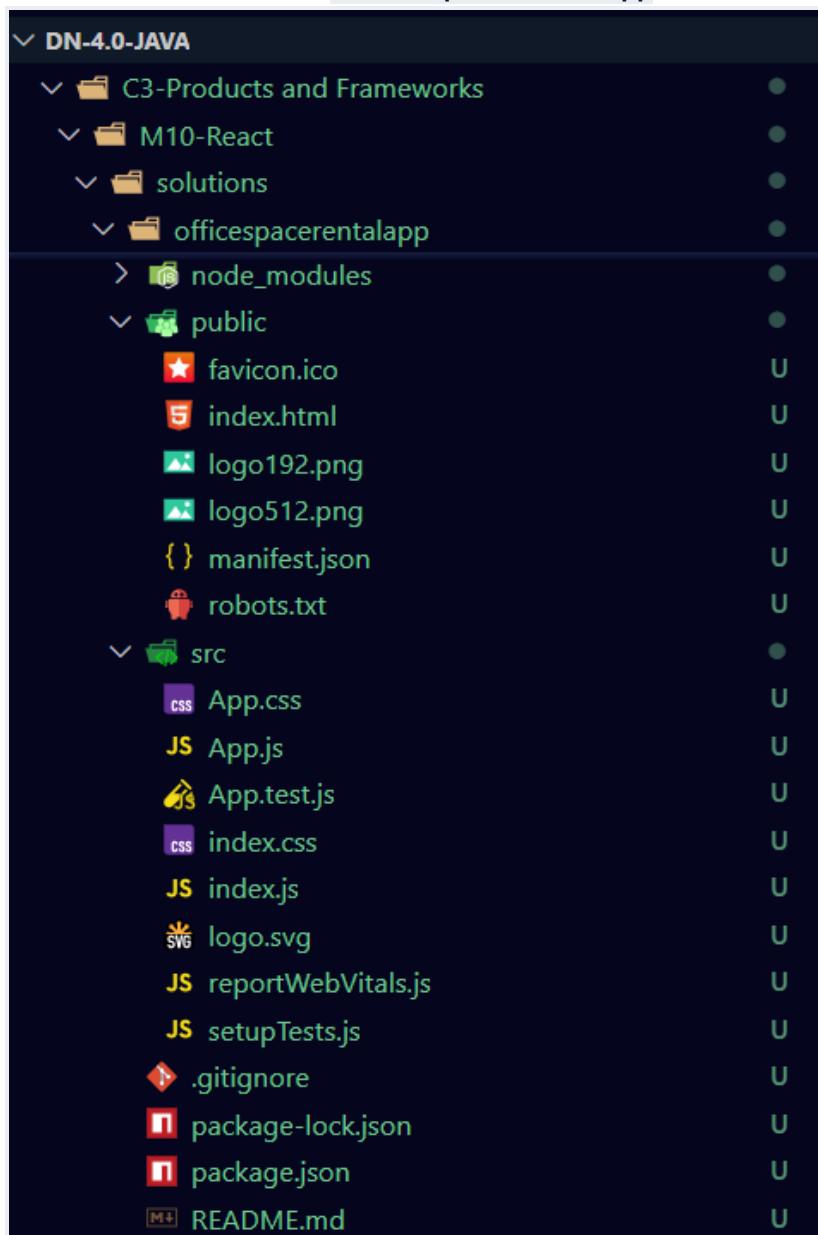
Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```

3. Default page when opening <http://localhost:3000>



4. Folder structure of the `officespacentalapp`



5. Create an element for heading, attribute for image and one object for displaying the office space details `App.js`:

```
import './App.css';
import office from './image.png'

function App() {
  const element = "Office Space"

  const jsxatt = <img src={office} width = "25%" height = "25%" alt =
"Office Space"/>

  const itemName = {Name : "DBS", Rent : 50000, Address : "Chennai"}
```

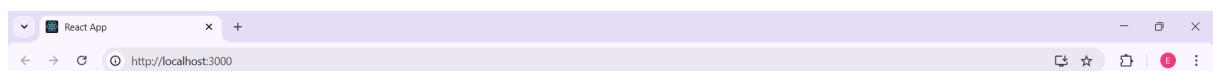
```

return (
  <>
    <h1>{element}, at affordable range</h1>
    {jsxatt}
    <h1>Name: {itemName.Name}</h1>
    <h3>Rent: Rs. {itemName.Rent}</h3>
    <h3>Address: {itemName.Address}</h3>
  </>
);
}

export default App;

```

6. Output for the above step



Office Space, at affordable range



Name: DBS

Rent: Rs. 50000

Address: Chennai

7. If rent is <= 60000, display it in red. Otherwise, in green. [App.js](#):

```

import './App.css';
import office from './image.png'

function App() {
  const element = "Office Space"

  const jsxatt = <img src={office} width = "25%" height = "25%" alt =
"Office Space"/>

```

```

const itemName = {Name : "DBS", Rent : 50000, Address : "Chennai"}

let colorRent = itemName.Rent<=60000 ? "red" : "green"

return (
  <>
    <h1>{element}, at affordabile range</h1>
    {jsxatt}
    <h1>Name: {itemName.Name}</h1>
    <h3 style={{color : colorRent}}>Rent: Rs. {itemName.Rent}</h3>
    <h3>Address: {itemName.Address}</h3>
  </>
);
}

export default App;

```

8. Output for the above step



9. Adding more objects and styles

a. App.js

```

import './App.css';
import office from './image.png'

```

```

function App() {
  const element = "Office Space"

  const jsxatt = <img src={office} width = "25%" height = "25%" alt =
"Office Space"/>

  const itemName = [
    {Name : "DBS", Rent : 50000, Address : "Chennai"}, 
    {Name : "GHI", Rent : 70000, Address : "Bangalore"}, 
    {Name : "ABC", Rent : 60000, Address : "Hyderabad"}, 
    {Name : "DEF", Rent : 80000, Address : "Pune"}, 
  ]
}

return (
  <>
  <h1 style={{textAlign: "center", color : "#898AC4"}}>{element}, at
affordable range</h1>

  <div style ={{textAlign: "center"}}>
  {jsxatt}
  </div>

  <div className='cards'>
  {
    itemName.map((item, index) => {
      let colorRent = item.Rent<=60000 ? "red" : "green"
      let colorRentBG = item.Rent<=60000 ? "#FF6961" : "#77DD77"
      return (
        <div className = 'office-card'>
          <h1>Name: {item.Name}</h1>
          <h3 style={{color : colorRent, backgroundColor : colorRentBG, width:
"140px", borderRadius : "30px", padding: "5px"}}>Rent: Rs. {item.Rent}</h3>
          <h3>Address: {item.Address}</h3>
          </div>
        )
      )
    })
  </div>

  </>
);
}

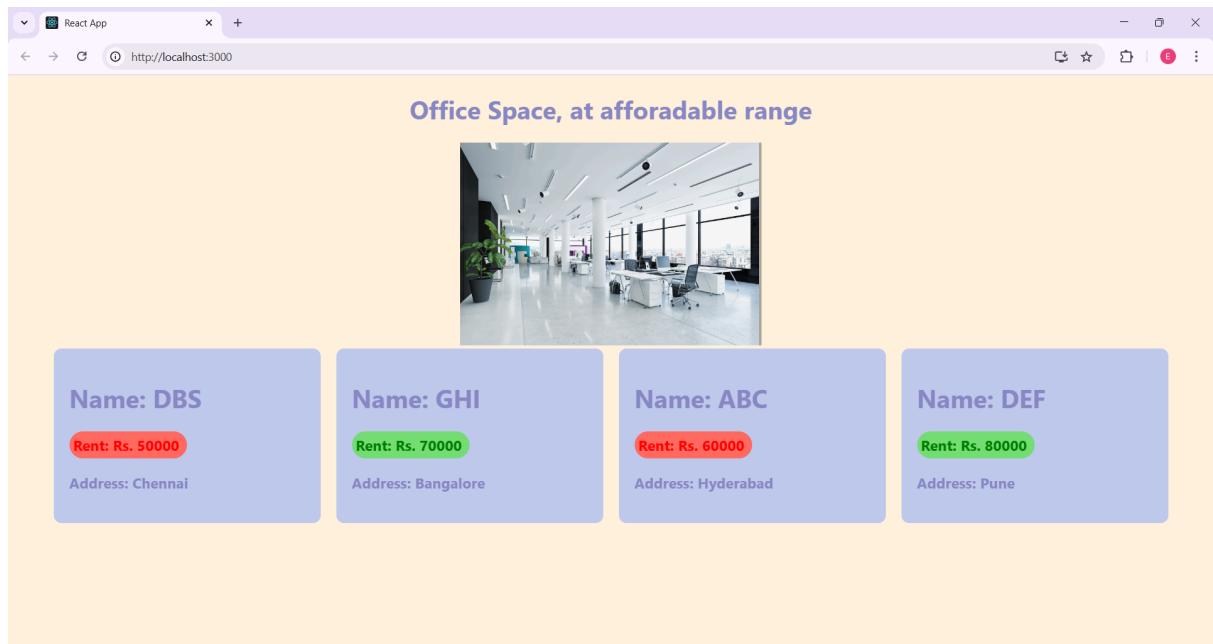
export default App;

```

b. `App.css`

```
.cards {  
  display: flex;  
  justify-content: center;  
  gap: 20px;  
}  
  
.office-card {  
  background-color: #C0C9EE;  
  color : #898AC4;  
  width : 300px;  
  padding: 20px;  
  border-radius: 10px;  
}  
  
body {  
  background-color: #FFF2E0;  
}
```

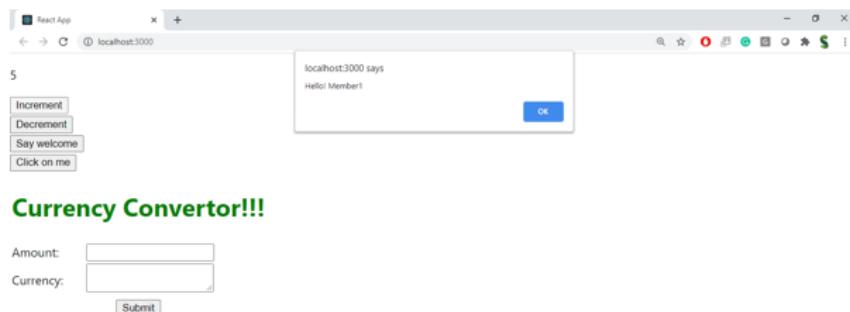
10. Output for above step



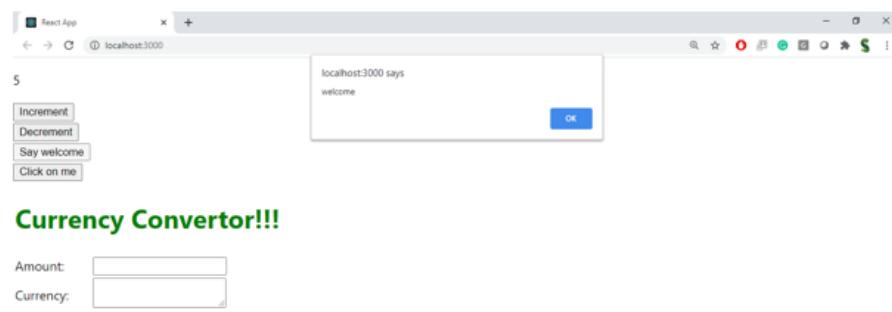
11. ReactJS-HOL

Create a React Application “eventexamplesapp” to handle various events of the form elements in HTML.

1. Create “Increment” button to increase the value of the counter and “Decrement” button to decrease the value of the counter. The “Increase” button should invoke multiple methods.
 - a. To increment the value
 - b. Say Hello followed by a static message.



2. Create a button “Say Welcome” which invokes the function which takes “welcome” as an argument.



3. Create a button which invokes synthetic event “OnPress” which display “I was clicked”



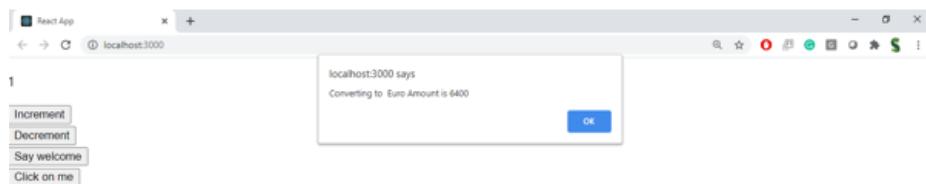
Currency Convertor!!!

Amount:

Currency:

Create a “CurrencyConvertor” component which will convert the Indian Rupees to Euro when the Convert button is clicked.

Handle the Click event of the button to invoke the handleSubmit event and handle the conversion of the euro to rupees.



Currency Convertor!!!

Amount:

Currency:

SOLUTION

1. Create eventexamplesapp react application

```
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app eventexamplesapp
Creating a new React app in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\eventexamplesapp.

Installing packages. This might take a couple of minutes.
● Installing react, react-dom, and react-scripts with cra-template...

added 1323 packages in 1m

269 packages are looking for funding
  run `npm fund` for details

Installing template dependencies using npm...
added 17 packages, and changed 1 package in 14s

269 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1340 packages in 5s

269 packages are looking for funding
  run `npm fund` for details

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.

Success! Created eventexamplesapp at D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\eventexamplesapp
Inside that directory, you can run several commands:

Run `npm audit` for details.

Success! Created eventexamplesapp at D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\eventexamplesapp
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

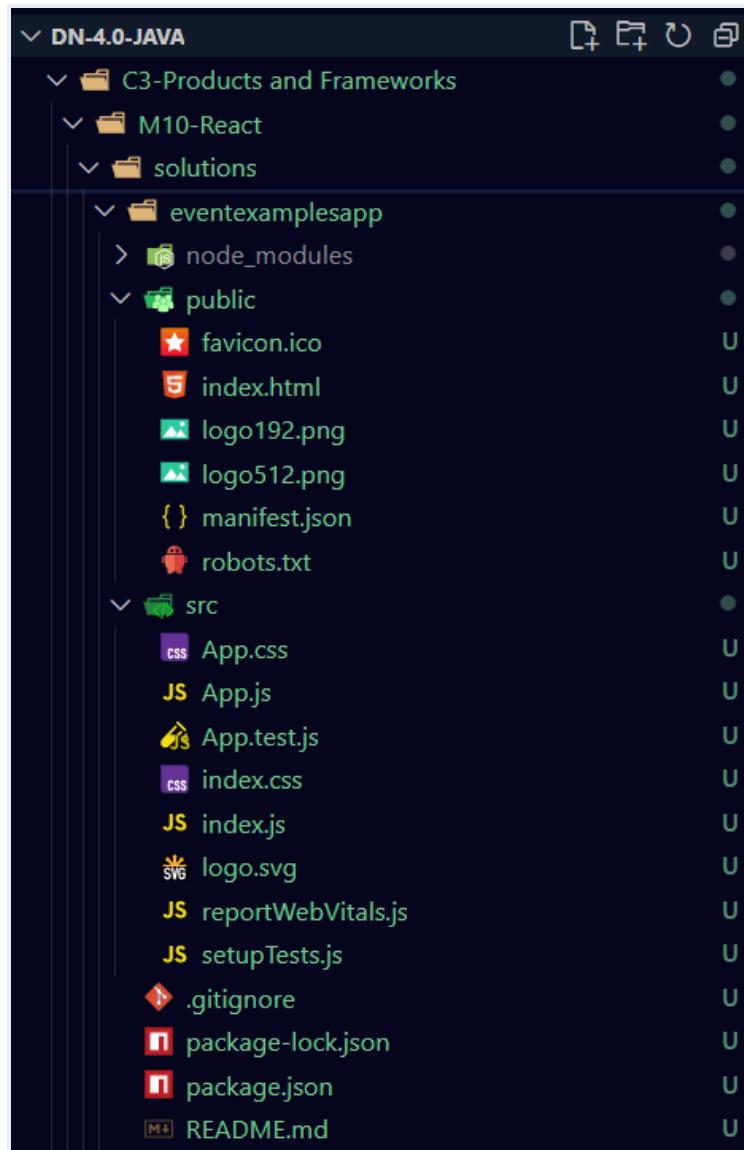
We suggest that you begin by typing:

  cd eventexamplesapp
  npm start

Happy hacking!
```

- PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> cd eventexamplesapp
- PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\eventexamplesapp> █

2. Folder structure of eventexamplesapp



3. Created a button to increment count, another to decrement count.



4

Increment Decrement Say Welcome Click on me

Currency Converter

Amount

Currency

Convert Euros to Rupees



-4

Increment Decrement Say Welcome Click on me

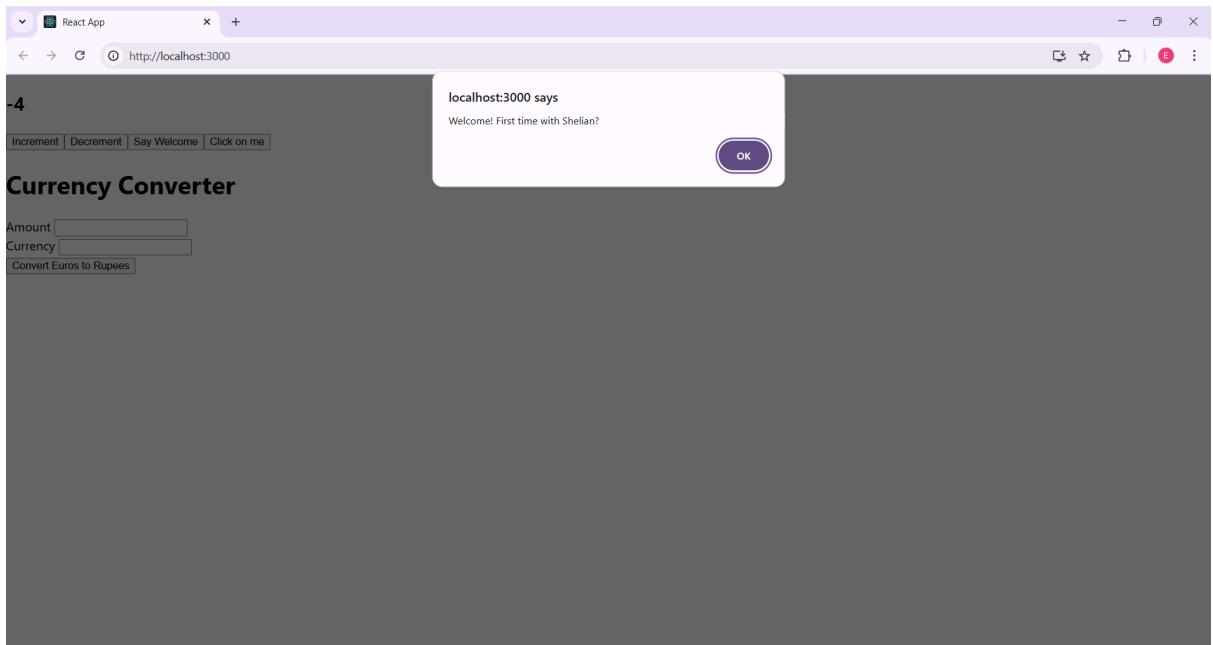
Currency Converter

Amount

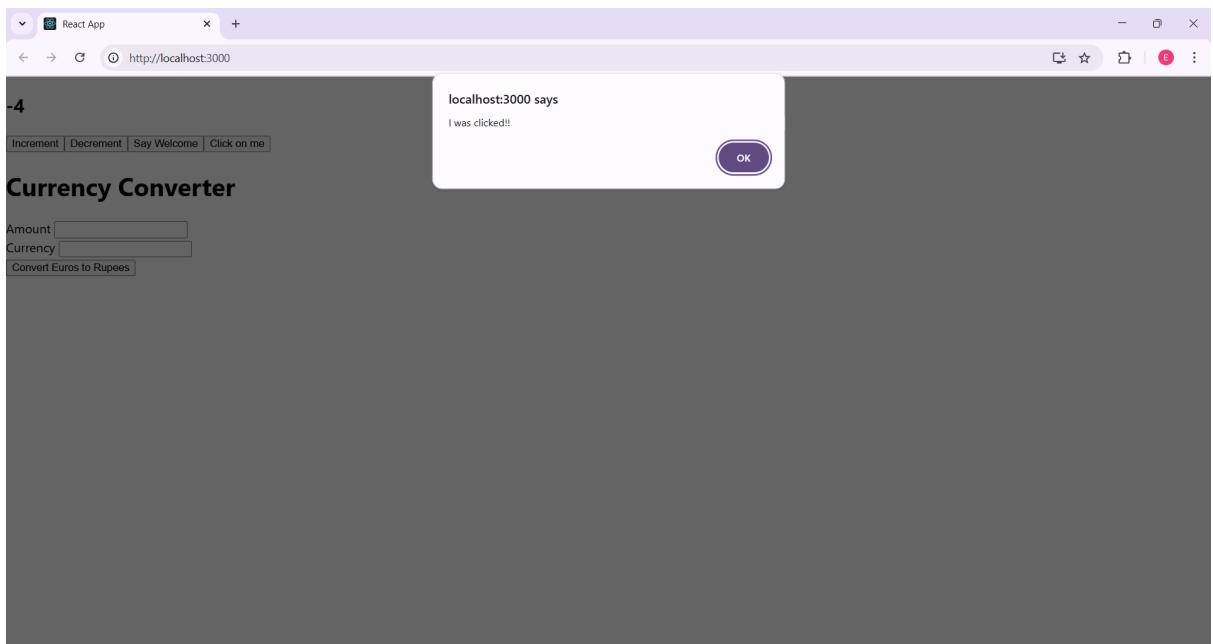
Currency

Convert Euros to Rupees

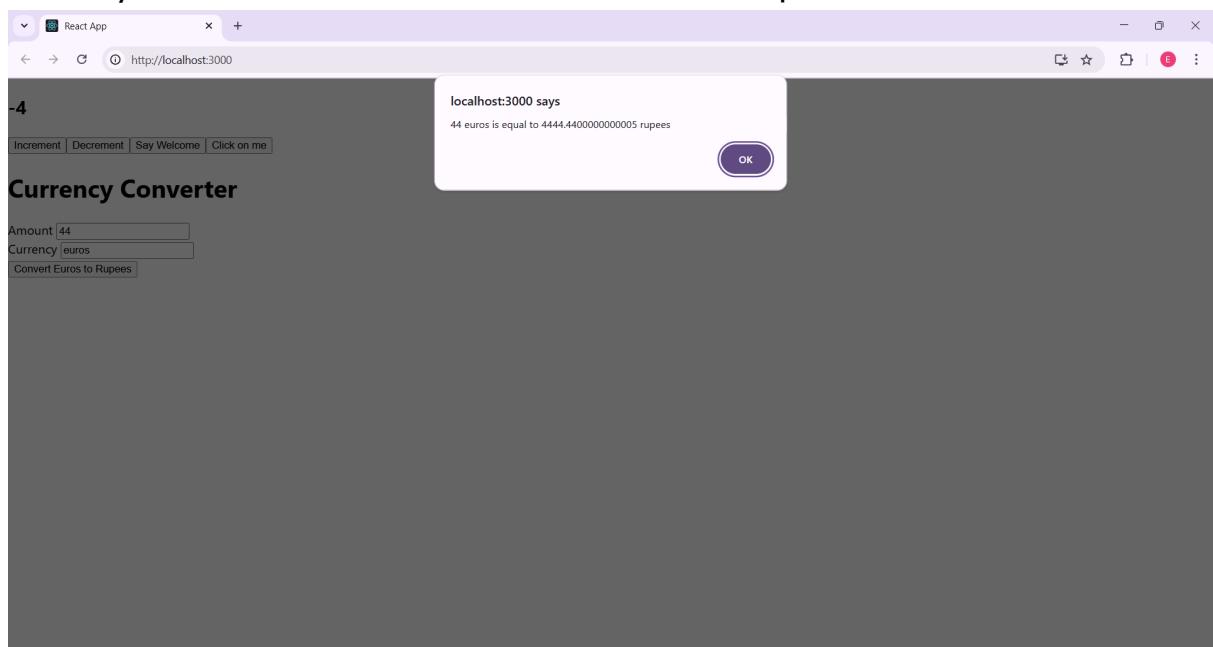
4. Button to display “Welcome” message when clicked on it



5. Button to utilise synthetic event to show “I was clicked” message when clicked



6. Currency converter to convert from euros to Indian Rupees



7. Code for `App.js`

```
import { useState } from "react";

function App() {
  const [count, setCount] = useState(0)
  const [amount, setAmount] = useState('')
  const [currency, setCurrency] = useState('')

  const sayWelcome = (message) => {
    alert( message + " First time with Shelian?" )
  }

  const handleClick = () => {
    alert("I was clicked!!")
  }

  const handleSubmit = (e) => {
    e.preventDefault();
    const converted = (amount) * 101.01;
    alert(`$${amount} euros is equal to ${converted} rupees`)
  }
  return (
    <>
      <h2>{count}</h2>
      <button onClick={() => setCount(count + 1)}>Increment</button>
      <button onClick={() => setCount(count - 1)}>Decrement</button>

      <button onClick={() => sayWelcome("Welcome!")}> Say Welcome</button>
    </>
  )
}

export default App
```

```

<button onClick={handleClick}> Click on me </button>

<h1>Currency Converter</h1>

<form onSubmit={handleSubmit}>
  <label> Amount </label>
  <input type="text" value = {amount} onChange={(e) =>
setAmount(e.target.value)} />

  <br/>

  <label> Currency </label>
  <input type="text" value = {currency} onChange={(e)
=>setCurrency(e.target.value)}/>

  <br/>

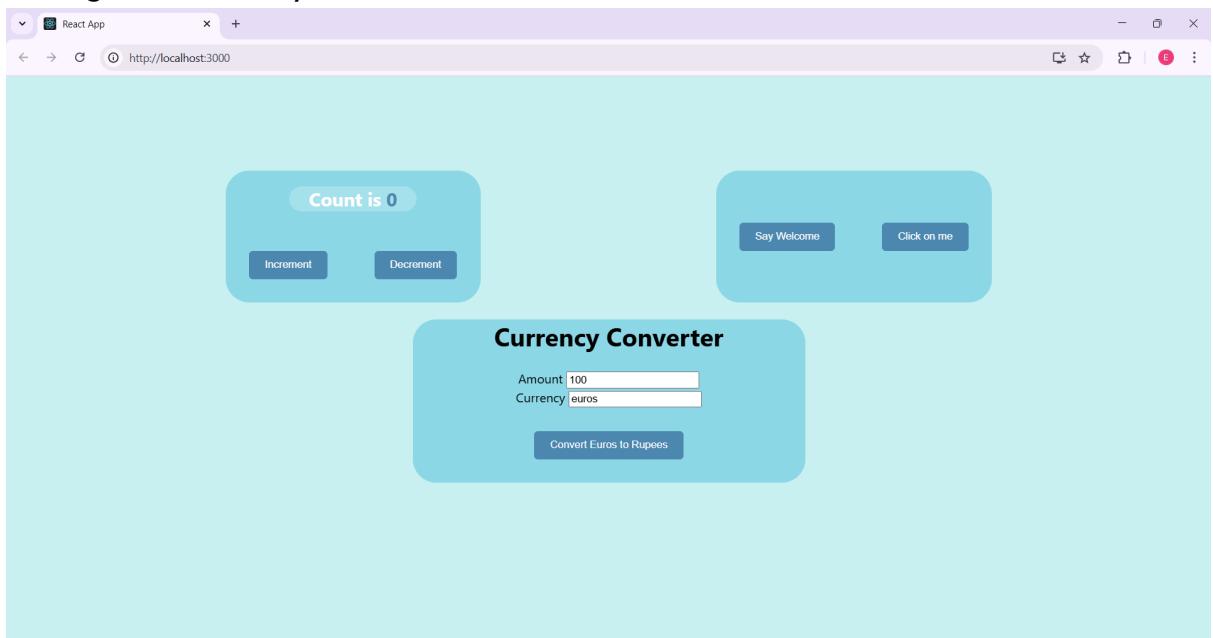
  <button type="submit">Convert Euros to Rupees</button>
</form>

</>
);
}

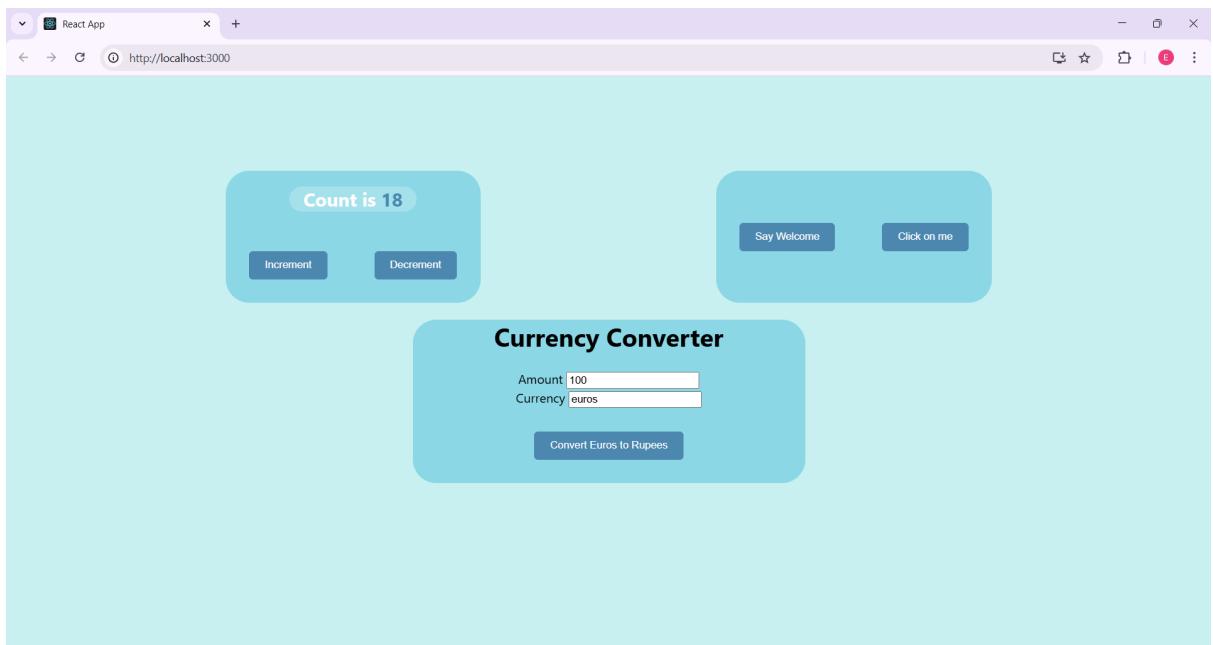
export default App;

```

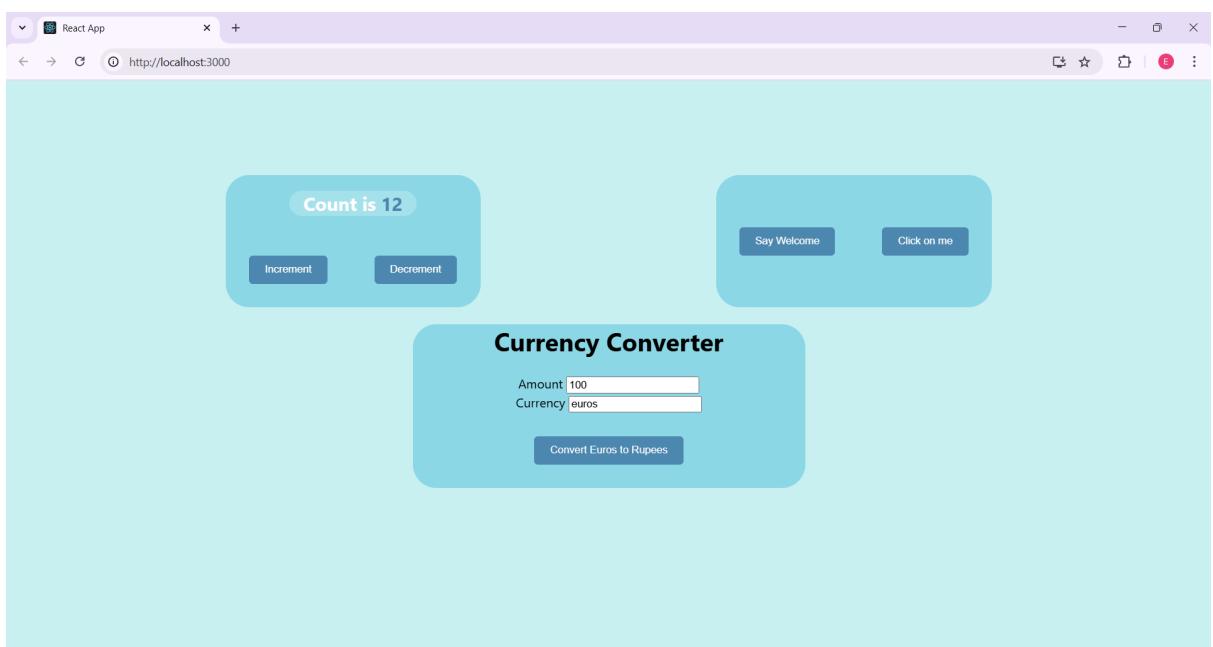
8. Adding additional styles



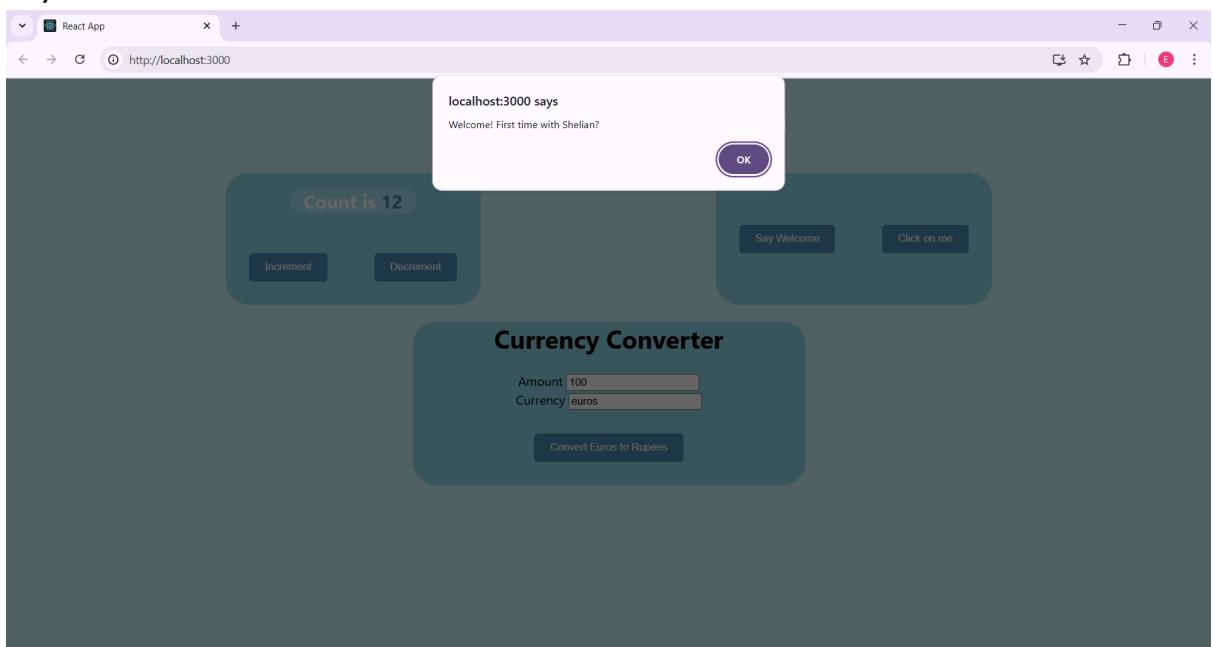
9. Increment Counter



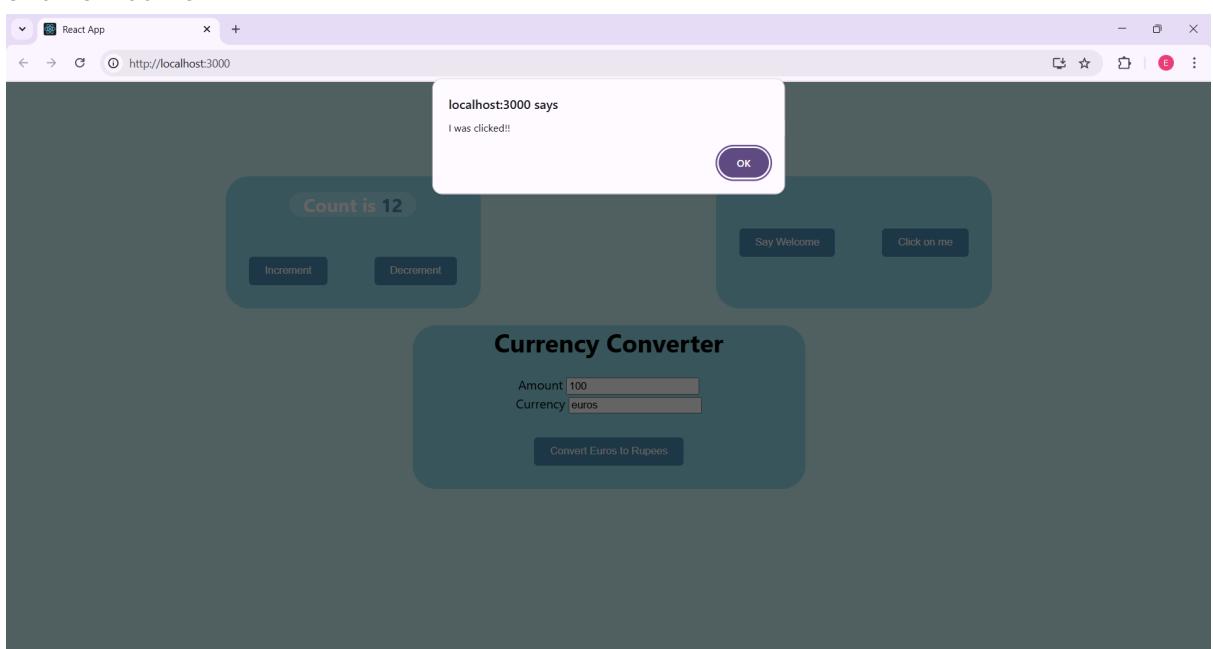
10. Decrement Counter



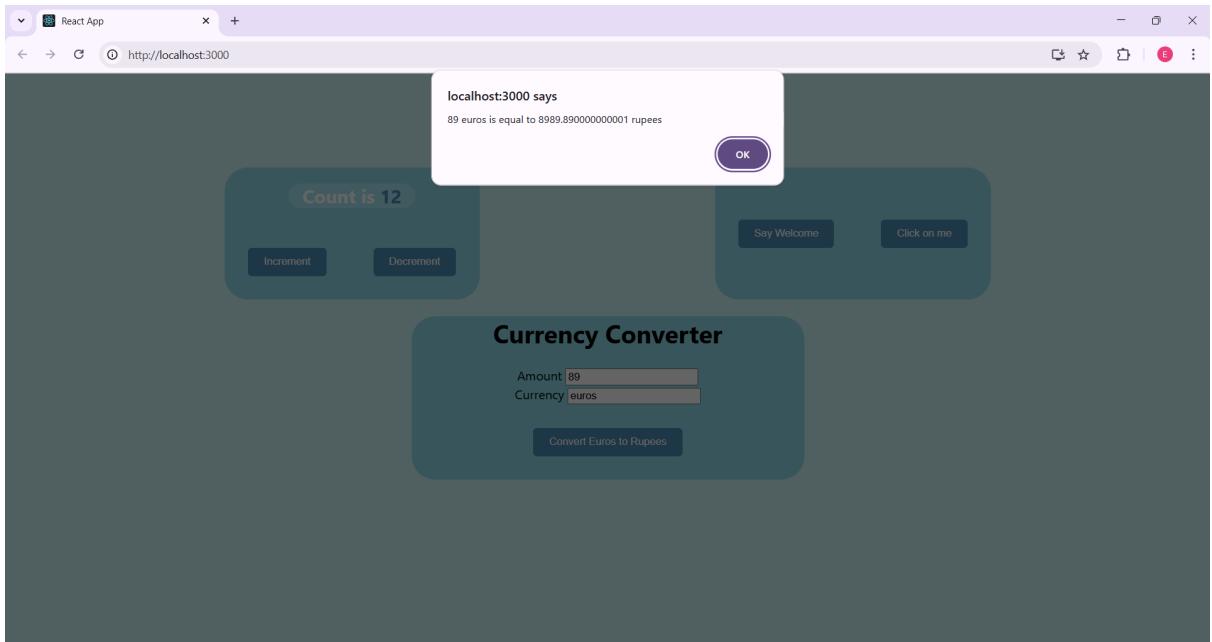
11. Say welcome



12. Click on button



13. Convert Currency



14. Code of App.js

```
import './App.css';
import { useState } from "react";

function App() {
  const [count, setCount] = useState(0)
  const [amount, setAmount] = useState('')
  const [currency, setCurrency] = useState('')

  const sayWelcome = (message) => {
    alert( message + " First time with Shelian?" )
  }

  const handleClick = () => {
    alert("I was clicked!!")
  }

  const handleSubmit = (e) => {
    e.preventDefault();
    const converted = (amount) * 101.01;
    alert(`$${amount} euros is equal to ${converted} rupees`)
  }
  return (
    <>
    <div className="buttons">

      <div className="counter">
        <h2>Count is <span>{count}</span></h2>
        <button onClick={() => setCount(count + 1)}>Increment</button>
      </div>
    </div>
  )
}

export default App;
```

```

        <button onClick={() => setCount(count - 1)}>Decrement</button>
    </div>
    <div className='right'>
        <button onClick={() => sayWelcome("Welcome!")}> Say Welcome</button>
        <button onClick={handleClick}> Click on me </button>
    </div>
    </div>

    <div className='currency'>
        <h1>Currency Converter</h1>
        <form onSubmit={handleSubmit}>
            <label> Amount </label>
            <input type="text" value = {amount} onChange={(e) => setAmount(e.target.value)} />
            <br/>
            <label> Currency </label>
            <input type="text" value = {currency} onChange={(e) =>setCurrency(e.target.value)} />
            <br/>
            <button type="submit">Convert Euros to Rupees</button>
        </form>
    </div>
</>
);
}

export default App;

```

15. Code of **App.css**

```

.buttons {
    display: flex;
    margin-top: 120px;
    justify-content: space-evenly;
}

.counter {
    align-items: center;
    justify-content: space-between;
    gap : 40px;
}

```

```
background-color: #8dd9ea;
border-radius: 30px;

}

.counter h2 {
  text-align: center;
  color: white;
  background-color: #fffff3d;
  width: 50%;
  margin: 20px auto ;
  border-radius: 30px;
}

.counter span {
  color: #4c8baf;
  font-weight: bold;
}

.right {
  display: flex;
  align-items: center;
  margin-left: 20px;
  background-color: #8dd9ea;
  border-radius: 30px;
}

button {
  padding: 10px 20px;
  background-color: #4c8baf;
  color: white;
  border: none;
  border-radius: 5px;
  margin: 30px;
  cursor: pointer;
}

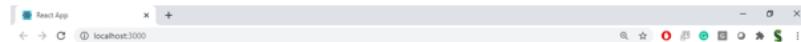
.currency {
  background-color: #8dd9ea;
  border-radius: 30px;
  text-align: center;
  width : 500px;
  margin: 20px auto;
}

body {
  background-color: #b7ebf0b5;
}
```

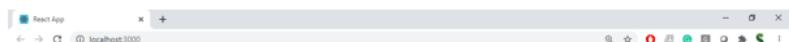
12. ReactJS-HOL

Create a React Application named “ticketbookingapp” where the guest user can browse the page where the flight details are displayed whereas the logged in user only can book tickets.

The Login and Logout buttons should accordingly display different pages. Once the user is logged in the User page should be displayed. When the user clicks on Logout, the Guest page should be displayed.



Please sign up.



Welcome back

Hint:

```
function LoginButton(props) {
  return (
    <button onClick={props.onClick}>
      Login
    </button>
  );
}
```

```
function LogoutButton(props) {
  return (
    <button onClick={props.onClick}>
      Logout
    </button>
  );
}
```

```
function Greeting(props) {
  const isLoggedIn = props.isLoggedIn;
  if (isLoggedIn) {
    return <UserGreeting />;
  }
  return <GuestGreeting />;
}
```

SOLUTION

1. Create ticketbookingapp react application

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app ticketbookingapp

Creating a new React app in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\ticketbookingapp.

Installing packages. This might take a couple of minutes.
• Installing react, react-dom, and react-scripts with cra-template...

added 1323 packages in 2m

269 packages are looking for funding
  run `npm fund` for details

Installing template dependencies using npm...

added 17 packages, and changed 1 package in 19s

269 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1340 packages in 8s

269 packages are looking for funding
  run `npm fund` for details

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.

Success! Created ticketbookingapp at D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\ticketbookingapp
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
```

```
  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!
```

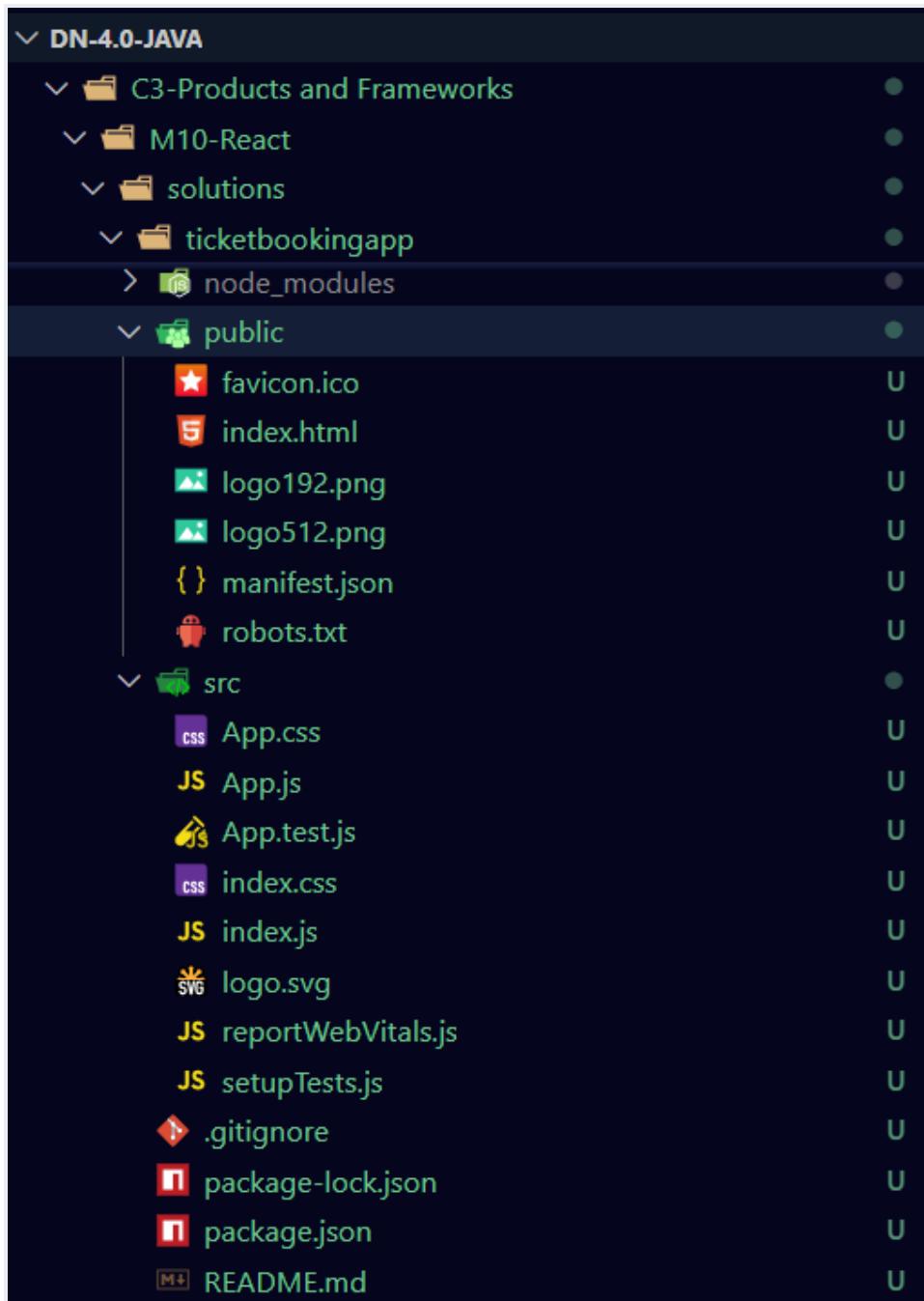
We suggest that you begin by typing:

```
cd ticketbookingapp
npm start
```

Happy hacking!

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> cd ticketbookingapp
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\ticketbookingapp> []
```

2. Folder structure of ticketbookingapp



3. Create required files in `components` folder



4. When user is not logged in, display the guest page, flight details and option to login



5. When user is logged in, display the user page, booking flights option and option to sign out



6. Code for `LoginButton.js`

```
function LoginButton(props) {
  return (
    <button onClick={props.onClick}>
      Login
    </button>
  )
}
```

```
export default LoginButton
```

7. Code for `LogoutButton.js`

```
function LogoutButton(props) {
  return (
    <button onClick={props.onClick}>
      Logout
    </button>
  )
}

export default LogoutButton;
```

8. Code for `UserGreeting.js`

```
function UserGreeting() {
  return( <><h1>Welcome back!</h1>
    <h3>You can book tickets</h3>
    </>);
}
export default UserGreeting;
```

9. Code for `GuestGreeting.js`

```
function GuestGreeting() {
  return (
    <>
    <h1>Please sign up.</h1>
    <h3>You can browse flight details</h3>
  </>
  );
}

export default GuestGreeting;
```

10. Code for Greeting.js

```
import GuestGreeting from "./GuestGreeting"
import UserGreeting from "./UserGreeting"

function Greeting(props) {
  const isLoggedIn = props.isLoggedIn

  return (
    <>
    {isLoggedIn ? <UserGreeting /> : <GuestGreeting/>}
    </>
  )
}

export default Greeting
```

11. Code for App.js

```
import { useState } from "react";
import Greeting from "./components/Greeting";
import LoginButton from "./components/LoginButton";
import LogoutButton from "./components/LogoutButton";

function App() {
  const [isLoggedIn, setIsLoggedIn] = useState(false)

  const onClick =() => {
    setIsLoggedIn(!isLoggedIn)
  }
  return (
    <>
    <Greeting isLoggedIn={isLoggedIn} />
    {isLoggedIn ? (<LogoutButton onClick={onClick}/>) : (<LoginButton
onClick={onClick}/>)}
    </>
  );
}

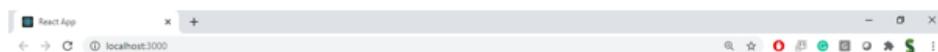
export default App;
```

13. ReactJS-HOL

Create a React App named “bloggerapp” in with 3 components.

1. Book Details
2. Blog Details
3. Course Details

Implement this with as many ways possible of Conditional Rendering.



Hint:

```
const bookdet = (
  <ul>
    {props.books.map((book) =>
      <div key={book.id}>
        <h3> {book.bname}</h3>
        <h4>{book.price}</h4>
      </div>
    )}
  </ul>
);
```

```
return (
  <div>
    <div>
      <div className="st2">
        <h1> Book Details</h1>
        {bookdet}
      </div>
      <div className="v1">
        <h1> Blog Details</h1>
        {content}
      </div>
      <div className="mystyle1">
        <h1> Course Details</h1>
        {coursedet}
      </div>
    </div>
  </div>
);
```

```
export const books=[
  {id:101,bname:'Master React',price:670},
  {id:102,bname:'Deep Dive into Angular 11 ',price:800},
  {id:103,bname:'Mongo Essentials',price:450},
];
```

SOLUTION

1. Create `bloggerapp` react application

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> npx create-react-app bloggerapp
Creating a new React app in D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\bloggerapp.

Installing packages. This might take a couple of minutes.
• Installing react, react-dom, and react-scripts with cra-template...

added 1323 packages in 1m

269 packages are looking for funding
  run `npm fund` for details

Installing template dependencies using npm...
added 17 packages, and changed 1 package in 9s

269 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1340 packages in 3s

269 packages are looking for funding
  run `npm fund` for details

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.

Success! Created bloggerapp at D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\bloggerapp
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
```

`npm start`

Starts the development server.

`npm run build`

Bundles the app into static files for production.

`npm test`

Starts the test runner.

`npm run eject`

Removes this tool and copies build dependencies, configuration files and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

```
cd bloggerapp
npm start
```

Happy hacking!

```
PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions>
```

```

PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions> cd bloggerapp
● PS D:\DN-4.0-Java\C3-Products and Frameworks\M10-React\solutions\bloggerapp> npm start

> bloggerapp@0.1.0 start
> react-scripts start

(node:19712) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
(Use `node --trace-deprecation ...` to show where the warning was created)
(node:19712) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
Starting the development server...
Compiled successfully!

You can now view bloggerapp in the browser.

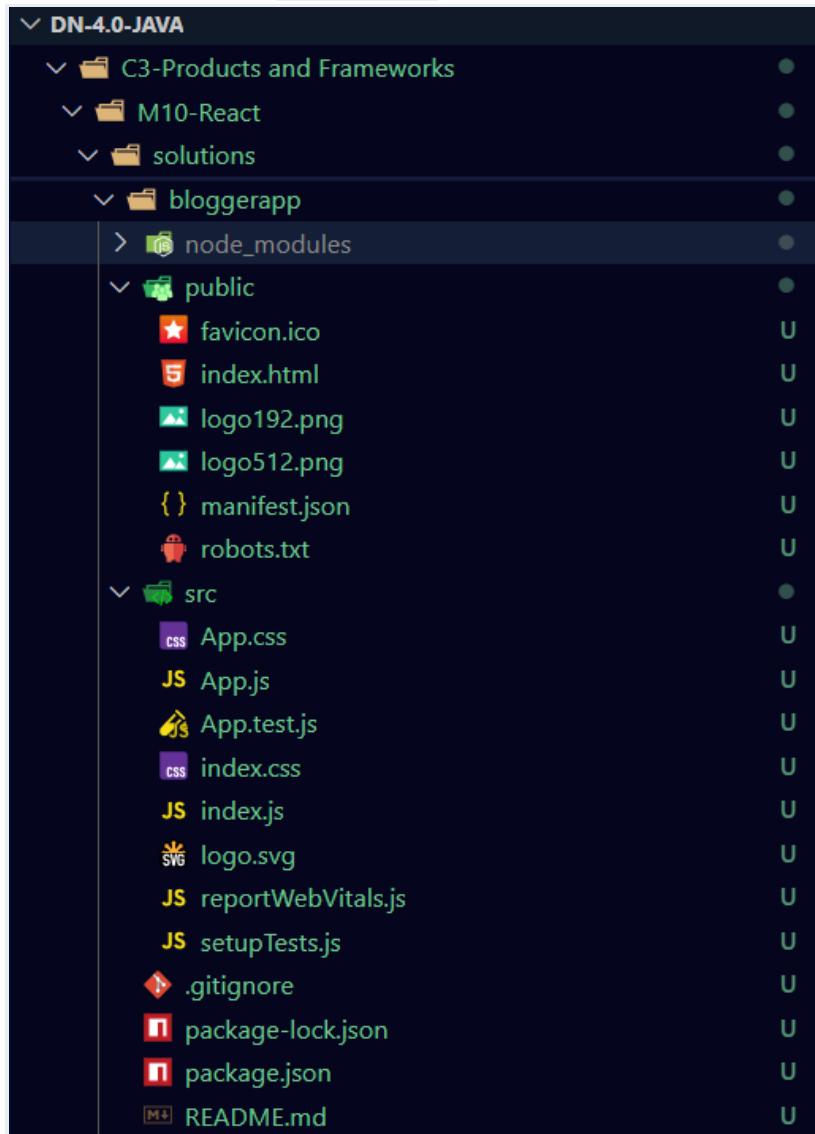
  Local:          http://localhost:3000
  On Your Network: http://192.168.0.6:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

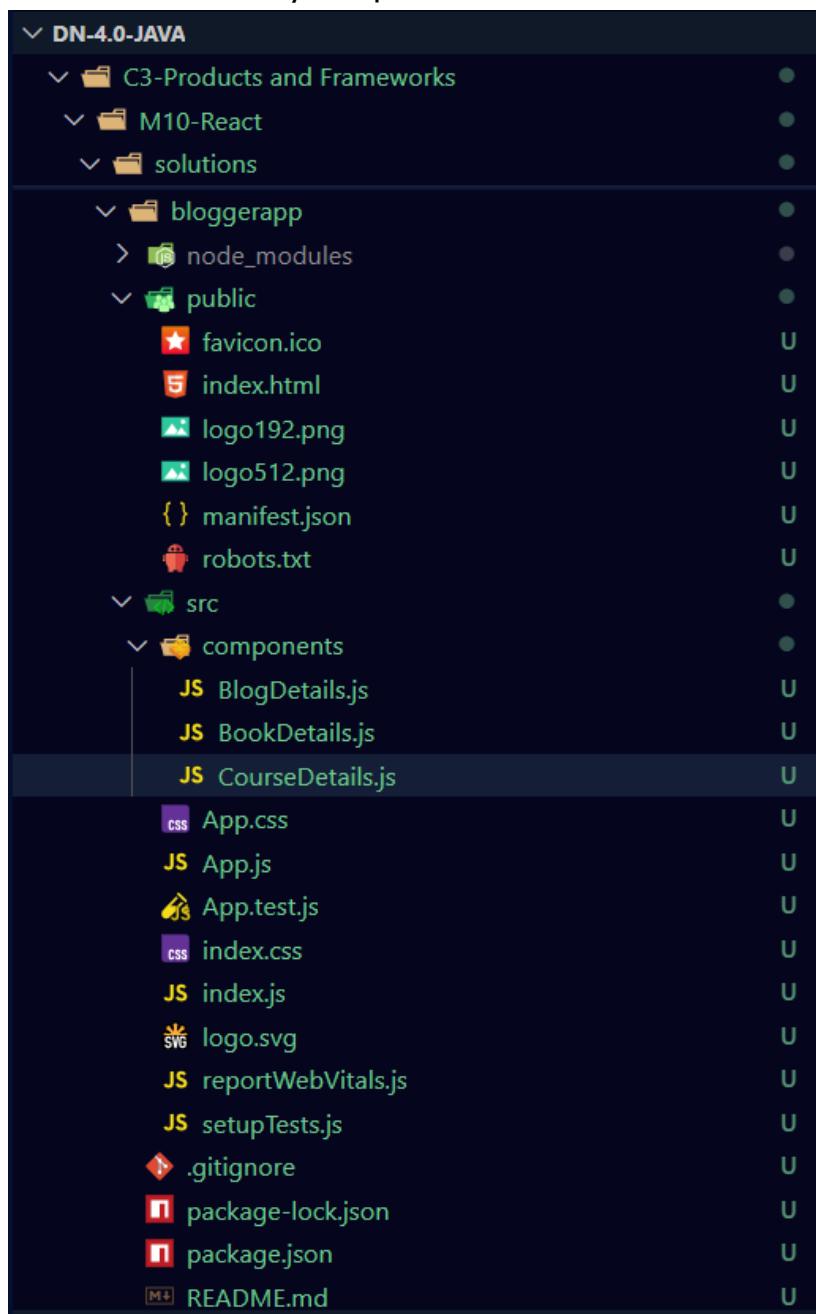
webpack compiled successfully

```

2. Folder structure of bloggerapp



3. Create the necessary components



4. Code for `BookDetails.js`

```
function BookDetails(props) {
  const books = props.books;

  return (
    <>
      <h1>Book Details</h1>
      <div>
        {books.map((book, index) => {
          return (
            <div key={index}>
```

```

        <h2>{book.title}</h2>
        <h3>{book.price}</h3>
      </div>
    );
  )})
</div>
</>
);
}

export default BookDetails;
<div key={index}>
  <h2>{book.title}</h2>
  <h3>{book.price}</h3>
  </div>
);
)`)
</div>
</>
);
}

export default BookDetails;

```

5. Code for `BlogDetails.js`

```

function BlogDetails(props) {
  const blogs = props.blogs;

  return (
    <>
    <h1>Blog Details</h1>
    <div>
      {blogs.map((blog, index) => {
        return (
          <div key={index}>
            <h2>{blog.title}</h2>
            <h3>{blog.author}</h3>
            <p>{blog.text}</p>
          </div>
        );
      )})
    </div>
    </>
  );
}

```

```
}

export default BlogDetails;
```

6. Code for CourseDetails.js

```
function CourseDetails(props) {
  const courses = props.courses;

  return (
    <>
    <h1>Course Details</h1>
    <div className="course-details">
      {courses.map((course, index) => {
        return (
          <div key={index}>
            <h2>{course.title}</h2>
            <h3>{course.date}</h3>
          </div>
        );
      })}
    </div>
  );
}

export default CourseDetails;
```

7. Code for App.js

```
import BlogDetails from "./components/BlogDetails";
import BookDetails from "./components/BookDetails";
import CourseDetails from "./components/CourseDetails";
import "./App.css";

function App() {
  const bloggerApp = [
    {
      books: [
        { id: 101, title: "Master React", price: 670 },
        { id: 102, title: "Deep Dive into Angular 11", price: 800 },
      ]
    }
  ];
}

export default App;
```

```
        { id: 103, title: "Mongo Essentials", price: 450 },
    ],
    blogs: [
      {
        id: 1,
        title: "React Learning",
        author: "Stephen Biz",
        text: "Welcome to learning React!",
      },
      {
        id: 2,
        title: "Installation",
        author: "Schwezdenier",
        text: "You can install React from npm.",
      },
    ],
    courses: [
      { id: 1, title: "Angular", date: "4/5/2021" },
      { id: 2, title: "React", date: "6/3/2021" },
    ],
  },
];
}

return (
  <>
  <div className="App">
    <div className="section">
      <CourseDetails courses={bloggerApp[0].courses} />
    </div>

    <div className="line" />
    <div className="section">
      <BookDetails books={bloggerApp[0].books} />
    </div>

    <div className="line" />
    <div className="section">
      <BlogDetails blogs={bloggerApp[0].blogs} />
    </div>
  </div>
);

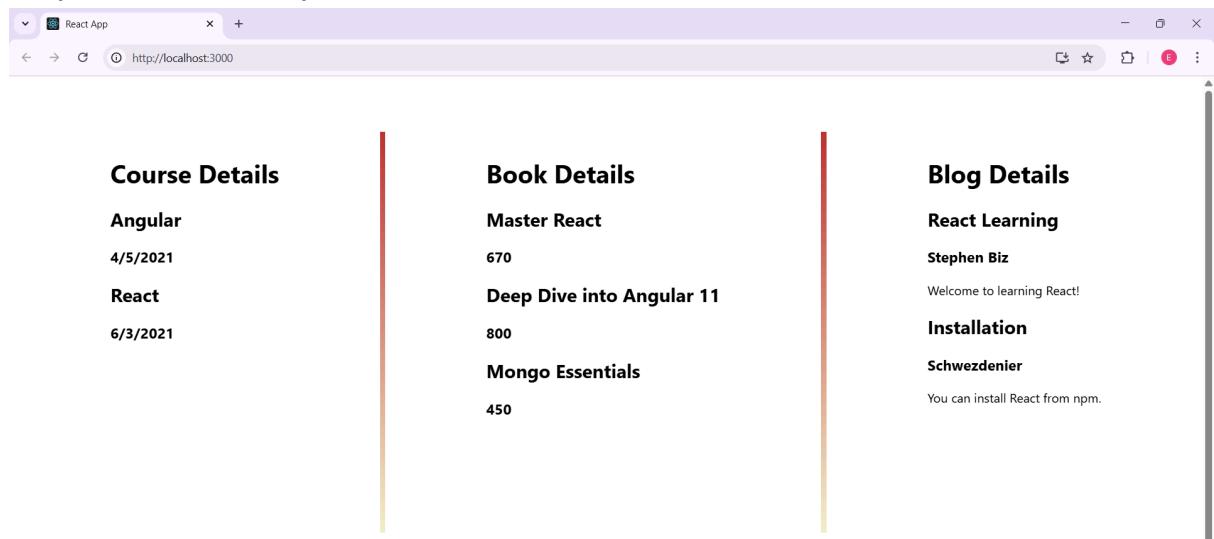
}

export default App;
```

8. Code for App.css

```
.App {  
  display : flex;  
  flex-direction: row;  
  justify-content: space-around;  
  align-items: flex-start;  
  height: 100vh;  
  padding: 20px;  
  margin: 40px;  
}  
  
.section {  
  padding: 20px;  
}  
  
.line {  
  width: 7px;  
  background: linear-gradient(to bottom, #c03434, #f4f0c9);  
  height: 70%;  
  margin: 10px;  
  text-align: center;  
}
```

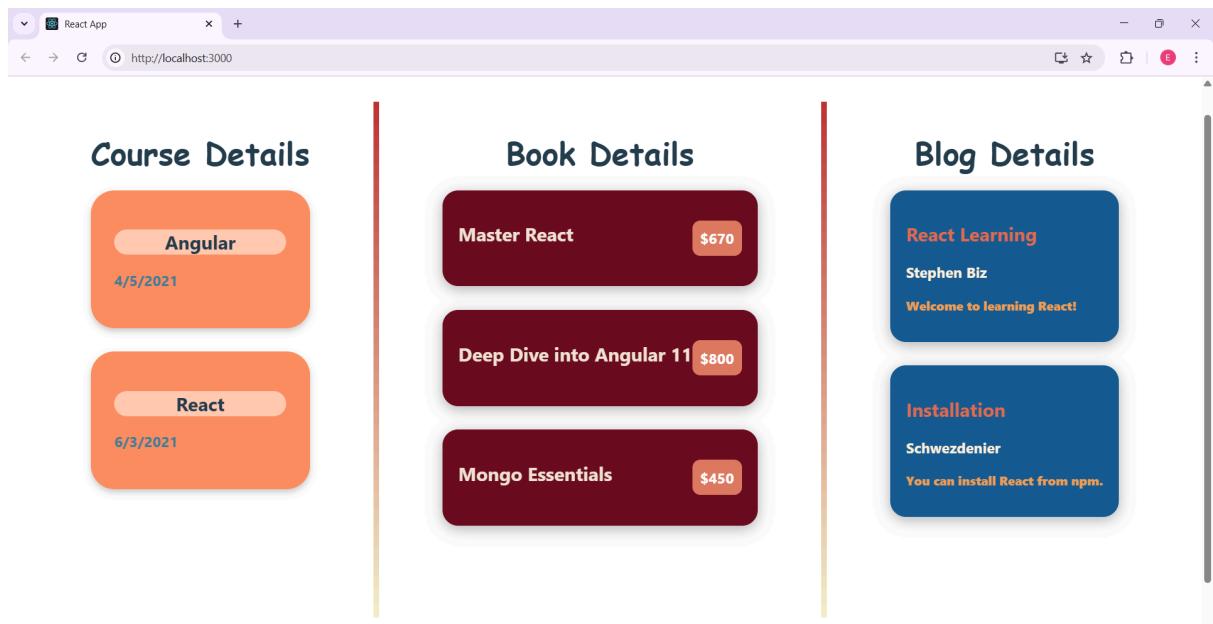
9. Output for above steps



The screenshot shows a web browser window titled "React App" with the URL "http://localhost:3000". The page displays three vertical columns of data:

- Course Details**
 - Angular
 - 4/5/2021
- Book Details**
 - Master React
 - 670
 - Deep Dive into Angular 11
 - 800
 - Mongo Essentials
 - 450
- Blog Details**
 - React Learning
 - Stephen Biz
 - Welcome to learning React!
 - Installation
 - Schwezdenier
 - You can install React from npm.

10. Adding Styles



11. Complete code of `App.css`

```
.App {  
  display : flex;  
  flex-direction: row;  
  justify-content: space-around;  
  align-items: flex-start;  
  height: 100vh;  
  padding: 20px;  
  margin: 40px;  
}  
  
.section {  
  padding: 20px;  
}  
  
.line {  
  width: 7px;  
  background: linear-gradient(to bottom, #c03434, #f4f0c9);  
  height: 90%;  
  margin: 10px;  
  text-align: center;  
}  
  
.heading {  
  color: #273F4F;  
  font-size: 2.5rem;
```

```
    text-align: center;
    margin-bottom: 20px;
    font-family: cursive;
}
.course {
    background-color: #fe7843d8;
    padding: 30px;
    margin-bottom: 30px;
    border-radius: 30px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
}

.course-details h2{
    color :#273F4F;
    background-color: #ffffff83;
    border-radius: 30px;
    text-align: center;
}

.course-details h3 {
    color : #447D9B;
}

.book {
    display: flex;
    justify-content: space-between;
    background-color: #690B22;
    margin-bottom: 30px;
    padding: 20px;
    border-radius: 20px;
    box-shadow: 0 4px 18px rgba(0, 0, 0, 0.3);
}

.book h2 {
    color : #F1E3D3;
}

.book h3 {
    background-color: #E07A5F;
    padding : 10px;
    border-radius: 10px;
    color : white;
}

.blog {
    background-color: #155E95;
    padding: 20px;
    border-radius: 20px;
```

```
    box-shadow: 0 4px 18px rgba(0, 0, 0, 0.3);
    margin-bottom: 30px;
}

.blog h2 {
    color : #E16A54;
}

.blog h3 {
    color: #FFF0DC;
}

.blog p{
    color: #F29F58;
    font-weight: 800;
}
```

12. Updated Code for `BookDetails.js`

```
function BookDetails(props) {
    const books = props.books;

    return (
        <>
            <h1 className= "heading">Book Details</h1>
            <div className= "book-details">
                {books.map((book, index) => {
                    return (
                        <div key={index} className="book">
                            <h2>{book.title}</h2>
                            <h3>${book.price}</h3>
                        </div>
                    );
                })}
            </div>
        </>
    );
}

export default BookDetails;
```

13. Updated Code for `BlogDetails.js`

```
function BlogDetails(props) {
  const blogs = props.blogs;

  return (
    <>
      <h1 className= "heading" > Blog Details</h1>
      <div className="blog-details">
        {blogs.map((blog, index) => {
          return (
            <div key={index} className="blog">
              <h2>{blog.title}</h2>
              <h3>{blog.author}</h3>
              <p>{blog.text}</p>
            </div>
          );
        })}
      </div>
    </>
  );
}

export default BlogDetails;
```

14. Updated Code for `CourseDetails.js`

```
function CourseDetails(props) {
  const courses = props.courses;

  return (
    <>
      <h1 className="heading">Course Details</h1>
      <div className="course-details">
        {courses.map((course, index) => {
          return (
            <div key={index} className="course">
              <h2>{course.title}</h2>
              <h3>{course.date}</h3>
            </div>
          );
        })}
      </div>
    </>
  );
}
```

```
}

export default CourseDetails;
```

15. Updated Code for [App.js](#)

```
import BlogDetails from "./components/BlogDetails";
import BookDetails from "./components/BookDetails";
import CourseDetails from "./components/CourseDetails";
import "./App.css";

function App() {
  const bloggerApp = [
    {
      books: [
        { id: 101, title: "Master React", price: 670 },
        { id: 102, title: "Deep Dive into Angular 11", price: 800 },
        { id: 103, title: "Mongo Essentials", price: 450 },
      ],
      blogs: [
        {
          author: "Stephen Biz",
          text: "Welcome to learning React!",
        },
        {
          id: 2,
          title: "Installation",
          author: "Schwezdenier",
          text: "You can install React from npm.",
        },
      ],
      courses: [
        { id: 1, title: "Angular", date: "4/5/2021" },
        { id: 2, title: "React", date: "6/3/2021" },
      ],
    };
  }

  return (
    <>
    <div className="App">
      <div className="section">
        <CourseDetails courses={bloggerApp[0].courses} />
      </div>

      <div className="line" />
      <div className="section">
        <BookDetails books={bloggerApp[0].books} />
      </div>
    </div>
  );
}
```

```
<div className="line" />
<div className="section">
  <BlogDetails blogs={bloggerApp[0].blogs} />
</div>
</div>
);
}

export default App;
```