**1.HELLO WORLD**

**ex.js**

function Hello()

{

return(

<div>

<h1>Hello world</h1>

</div>

);

}

export default Hello;

**Index.js**

import React from 'react';

import ReactDOM from 'react-dom/client';

import './index.css';

import Hello from './ex';

import reportWebVitals from './reportWebVitals';

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(

<React.StrictMode>

<Hello />

</React.StrictMode>

);

reportWebVitals();

**2.CURRENT DATE AND TIME**

**Index.js**

import reportWebVitals from './reportWebVitals';

function timer()

{

var ob = new Date();

var d = ob.toDateString();

var t = ob.toTimeString();

var element =

<>

<h1> Date:{d}</h1>

<h1> Time:{t}</h1>

</>

root.render(element);

}

setInterval(timer,1000);

const root = ReactDOM.createRoot(document.getElementById('root'));

**3a.FUNCTIONAL COMPONENT**

**Fc.js**

import React from "react";

function FC(props)

{

return(

<div>

<h1>{props.data}</h1>

</div>

)

}

export default FC;

**Index.js**

import reportWebVitals from './reportWebVitals';

var name = "xyz";

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(

<React.StrictMode>

<FC data = {name} />

</React.StrictMode>

);

**3b.CLASS COMPONENT**

import { Component } from "react";

class App1 extends Component

{

constructor()

{

super();

this.state = {

data : [{"name":"abc"},{"name":"xyz"}]

}

}

render(){

return(

<div>

<StudentName />

<ul>

{this.state.data.map((item, index) => (<List key={index} data={item} />))}

</ul>

</div>

);

}

}

class StudentName extends Component

{

render(){

return(

<div>

<h1>Student Name</h1>

</div> );

}

}

class List extends Component

{

render()

{

return(

<div>

<ul>

<li> {this.props.data.name} </li>

</ul>

</div>

);

}

}

export default App1;

**4.DATE IN CLASS COMPONENT**

**Datedisplay.js**

import { Component } from "react";

class DateDisplay extends Component

{

constructor(props)

{

super(props);

this.state = { date:props.d};

}

render()

{

return(

<div>

<h1>Date Display</h1>

<p>current date:{this.state.date}</p>

</div>

);

}

}

export default DateDisplay;

**Index.js**

import DateDisplay from './Datedisplay';

const date = "2024-27-10"

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(

<React.StrictMode>

<DateDisplay d = {date}/>

</React.StrictMode>

);

**5.LIFE CYCLE METHODS**

import { Component } from "react";

class LifeCycle extends Component{

constructor(props){

super(props);

this.state = {count:0}

}

stategetDerivedStatefromProps(props,state){

console.log("This is the getDerived state from props");

return null;

}

componentDidMount(){

console.log("this is component did mount");

}

shouldComponentUpdate(){

console.log("this is should component update");

return true;

}

getSnapshotBeforeUpdate(prevProps,prevState){

console.log("this is get snap shot before update");

console.log("Before update count",prevState);

return null;

}

componentDidUpdate(prevProps,prevState){

console.log("Component did update");

console.log("After update count",this.state.count);

}

increment =()=>{

this.setState((prevState)=>(

{count:prevState.count+1}

));

}

decrement =()=>{

this.setState((prevState)=>(

{count:prevState.count-1}

));

}

render(){

return (<div>

<h1>Current Count:{this.state.count}</h1>

<button onClick={this.increment}>Increase</button>

<button onClick={this.decrement}>Decrease</button>

</div>

)

}

}

export default LifeCycle;

**6.EVENT LISTENER**

import {Component} from 'react'

class Button extends Component{

constructor(props){

super(props);

this.state = {msg:"Lets get Started"};

}

handleDateClick(){

this.setState({msg:new Date().toString()});

}

handleGoodByeClick(){

this.setState({msg:"Good Bye"});

}

render(){

return (

<div>

<h1>{this.state.msg}</h1>

<button onClick={this.handleDateClick.bind(this)}>Show Date and Time</button>

<button onClick={this.handleGoodByeClick.bind(this)}>Say Bye</button>

</div>

)

}

}

export default Button;

**7.CALCULATOR**

import React,{useState} from 'react';

import './Calc.css'

const Calc = () => {

const [input,setIntput]=useState('');

const [result, setResult] = useState('');

const handleClick=(val)=>{

if(val==='='){

setResult(eval(input));

}

else if(val==='C'){

setIntput('');

setResult('');

}

else if(val==='X'){

setIntput(input.slice(0,-1));

}

else{

setIntput(input+val);

}

}

return (

<div className="calc">

<div className="container">

<div className="input"> {input}</div>

<div className="result">{result}</div>

</div>

<div className="button">

{['7', '8', '9', '/', '4', '5', '6', '\*', '1', '2', '3', '-', '0', '.', '=', '+', 'C', 'X'].map((val) => (

<button key={val} onClick={() => handleClick(val)}>{val}</button>

))}

</div>

</div>

);

}

export default Calc;

**8.REGISTRATION PAGE**

import { useState } from "react"

import './reg.css'

const Regform = () =>{

const[formData,SetFormData] = useState({

username : '',

email : '',

password : '',

phone : '',

gender : '',

});

const handleChange =(e) =>{

const{name,value} = e.target;

SetFormData({

...formData,

[name]:value

});

}

const handleSubmit = (e)=>{

e.preventDefault();

console.log("Form Data submitted:",formData);

}

return(

<div align = 'center'>

<h1>Registration form</h1>

<form onSubmit={handleSubmit}>

<div>

<label htmlFor="username">user name:</label>

<input type="text" id="username" name="username" value={formData.usesrname} onChange={handleChange} />

</div>

<div>

<label htmlFor="email">email:</label>

<input type="email" id="email" name="email" value={formData.email} onChange={handleChange} required/>

</div>

<div>

<label htmlFor="password">password:</label>

<input type="password" id="password" name="password" value={formData.password} onChange={handleChange} required/>

</div>

<div>

<label htmlFor="phone">phone number:</label>

<input type="tel" id="phone" name="phone" value={formData.phone} onChange={handleChange} required/>

</div>

<div>

<label>Gender:</label>

<select id="gender" name="gender" value={formData.gender} onChange={handleChange} required >

<option value=" ">select gender</option>

<option value="male">male</option>

<option value="female">female</option>

</select>

</div>

<button type="submit" >REGISTER</button>

</form>

</div>

)

}

export default Regform;

**11.WEATHER APP**

**WeatherService.js**

import axios from 'axios';

const API\_KEY = 'd09c179e61f7657174057032d4532734';

const BASE\_URL = '<https://api.openweathermap.org/data/2.5>';

// Function to fetch current weather data

export const getWeatherData = async (city) => {

try {

const response = await axios.get(`${BASE\_URL}/weather`, {

params: {

q: city,

appid: API\_KEY,

},

});

return response.data;

} catch (error) {

console.error('Error fetching weather data:', error);

if (error.response && error.response.status === 401) {

alert('Unauthorized: Invalid API Key');

}

return null;

}

};

**WeatherApp.js**

**We have to install axios for this npm i axios**

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

import { getWeatherData } from './WeatherService';

const WeatherApp = () => {

const [currentWeather, setCurrentWeather] = useState(null);

const [city, setCity] = useState(''); // Initialize city with empty string

const [inputCity, setInputCity] = useState('New York'); // Default city input

useEffect(() => {

const fetchWeather = async () => {

const current = await getWeatherData(inputCity);

setCurrentWeather(current);

};

fetchWeather();

}, [inputCity]);

// Handler for city input change

const handleCityChange = (e) => {

setCity(e.target.value);

};

// Handler for form submission

const handleFormSubmit = (e) => {

e.preventDefault();

setInputCity(city); // Update the inputCity state to trigger a new fetch

};

return (

<div>

<h1>Weather App</h1>

{/\* Input form for city name \*/}

<form onSubmit={handleFormSubmit}>

<input

type="text"

value={city}

onChange={handleCityChange}

placeholder="Enter city"

/>

<button type="submit">Get Weather</button>

</form>

{currentWeather && (

<div>

<h2>Current Weather in {currentWeather.name}</h2>

<p>Temperature: {(currentWeather.main.temp - 273.15).toFixed(2)} °C</p>

<p>Weather: {currentWeather.weather[0].description}</p>

</div>

)}

</div>

);

};

export default WeatherApp;

**12.TODO**

**App.js**

import React, { useState } from 'react';

import TodoForm from './components/TodoForm';

import TodoList from './components/TodoList';

function App() {

const [todos, setTodos] = useState([]);

const addTodo = (task) => {

const newTodo = { id: Date.now(), task, completed: false };

setTodos([...todos, newTodo]);

};

const toggleComplete = (id) => {

setTodos(todos.map(todo => (

todo.id === id ? { ...todo, completed: !todo.completed } : todo

)));

};

const deleteTodo = (id) => {

setTodos(todos.filter(todo => todo.id !== id));

};

return (

<div className="App">

<h1>TODO App</h1>

<TodoForm addTodo={addTodo} />

<TodoList todos={todos} toggleComplete={toggleComplete} deleteTodo={deleteTodo} />

</div>

);

}

export default App;

**TodoForm.js**

import React, { useState } from 'react';

function TodoForm({ addTodo }) {

const [task, setTask] = useState('');

const handleSubmit = (e) => {

e.preventDefault();

if (task.trim()) {

addTodo(task);

setTask('');

}

};

return (

<form onSubmit={handleSubmit}>

<input

type="text"

value={task}

onChange={(e) => setTask(e.target.value)}

placeholder="Add new task"

/>

<button type="submit">Add Task</button>

</form>

);

}

export default TodoForm;

**TodoList.js**

import React from 'react';

function TodoList({ todos, toggleComplete, deleteTodo }) {

return (

<ul>

{todos.map(todo => (

<li key={todo.id} style={{ textDecoration: todo.completed ? 'line-through' : 'none' }}>

{todo.task}

<button onClick={() => toggleComplete(todo.id)}>

{todo.completed ? 'Undo' : 'Complete'}

</button>

<button onClick={() => deleteTodo(todo.id)}>Delete</button>

</li>

))}

</ul>

);

}

export default TodoList;

**9&10.BOOK STORE**

**App.js**

import React from 'react';

import { BrowserRouter as Router, Route, Routes } from 'react-router-dom';

import Home from './Home';

import Product from './Product';

import Checkout from './Checkout';

import Cart from './Cart';

import Header from './Header'; // Import the Header component

const App = () => {

return (

<Router>

<Header />

<Routes>

<Route path="/" element={<Home />} />

<Route path="product/:id" element={<Product />} />

<Route path="/cart" element={<Cart />} />

<Route path="/checkout" element={<Checkout />} />

</Routes>

</Router>

);

};

export default App;

**Home.js**

import React from 'react';

import { Link } from 'react-router-dom';

import './Home.css'; // Import the CSS file

const Home = () => {

const books = [

{

id: 1,

title: 'The Great Gatsby',

description: 'A classic novel by F. Scott Fitzgerald.',

imageUrl: 'pic3.jpg' // Path relative to the public folder

},

{

id: 2,

title: 'A Silent Valley',

description: 'A dystopian novel by George Orwell.',

imageUrl: 'pic2.jpg' // Path relative to the public folder

},

{

id: 3,

title: 'To Kill a Mockingbird',

description: 'A novel by Harper Lee.',

imageUrl: 'pic1.webp' // Path relative to the public folder

},

];

return (

<div>

<h1>Book Store</h1>

<div className="card-container">

{books.map((book) => (

<div className="card" key={book.id}>

<Link to={`/product/${book.id}`}>

<img

src={book.imageUrl}

alt={book.title}

/>

<div className="card-content">

<h2 className="card-title">{book.title}</h2>

</div>

</Link>

</div>

))}

</div>

</div>

);

};

export default Home;

**Product.js**

import React from 'react';

import { useParams } from 'react-router-dom';

import './Product.css'; // Import the CSS file

const Product = () => {

const { id } = useParams();

const books = [

{

id: 1,

title: 'The Great Gatsby',

description: 'A classic novel by F. Scott Fitzgerald where he explore',

imageUrl: 'pic3.jpg'

},

{

id: 2,

title: 'A Silent Valley',

description: 'A dystopian novel by George Orwell where the prota',

imageUrl: 'pic2.jpg'

},

{

id: 3,

title: 'To Kill a Mockingbird',

description: 'A novel by Harper Lee where the hero pursues a vi',

imageUrl: 'pic1.webp'

},

];

// Find the book based on the ID from the URL

const book = books.find((b) => b.id === parseInt(id));

if (!book) {

return <div>Book not found</div>;

}

const handleAddToCart = () => {

let cart = JSON.parse(localStorage.getItem('cart')) || [];

const existingItem = cart.find((item) => item.id === book.id);

if (existingItem) {

existingItem.quantity += 1;

} else {

cart.push({ ...book, quantity: 1 });

}

localStorage.setItem('cart', JSON.stringify(cart));

};

return (

<div className="card-container">

<div className="card">

<img

src={`${process.env.PUBLIC\_URL}/${book.imageUrl}`}

alt={book.title}

/>

<h1>{book.title}</h1>

<p>{book.description}</p>

<button onClick={handleAddToCart}>Add to Cart</button>

</div>

</div>

);

};

export default Product;

**Cart.js**

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

import { Link } from 'react-router-dom';

import './Cart.css'; // Import the CSS file

const Cart = () => {

const [cart, setCart] = useState([]);

useEffect(() => {

const savedCart = JSON.parse(localStorage.getItem('cart')) || [];

setCart(savedCart);

}, []);

return (

<div className="cart-container">

<h1>Your Cart</h1>

<ul>

{cart.map((item) => (

<li key={item.id}>

{item.title} - Quantity: {item.quantity}

</li>

))}

</ul>

<Link to="/checkout" className="link-button">

<button>Proceed to Checkout</button>

</Link>

</div>

);

};

export default Cart;

**Checkout.js**

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

import './Checkout.css'; // Import the CSS file

const Checkout = () => {

const [cart, setCart] = useState([]);

useEffect(() => {

// Fetch cart data from localStorage

const savedCart = JSON.parse(localStorage.getItem('cart')) || [];

setCart(savedCart);

}, []);

const handlePrint = () => {

window.print();

};

return (

<div className="checkout-container">

<h1>Checkout</h1>

<h2>Invoice</h2>

<ul>

{cart.map((item) => (

<li key={item.id}>

{item.title} - Quantity: {item.quantity}

</li>

))}

</ul>

<button onClick={handlePrint}>Print Invoice</button>

</div>

);

};

export default Checkout;

**Header.js**

// Header.js

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

import { Link } from 'react-router-dom';

import './Header.css'; // Import the CSS file

const Header = () => {

const [itemCount, setItemCount] = useState(0);

useEffect(() => {

// Fetch cart data from localStorage

const savedCart = JSON.parse(localStorage.getItem('cart')) || [];

// Calculate the total number of items

const totalItems = savedCart.reduce((acc, item) => acc + item.quantity, 0);

setItemCount(totalItems);

}, []);

return (

<header className="header">

<nav>

<ul className="nav-list">

<li><Link to="/">Home</Link></li>

<li><Link to="/cart">Cart {itemCount > 0 && `(${itemCount})`}</Link></li>

<li><Link to="/checkout">Checkout</Link></li>

</ul>

</nav>

</header>

);

};

export default Header;