ExpenseTracker:

import "./ExpenseItem.css"

const ExpenseItem = () => {

   return (

       <div className="expense-item">

           <div>Oct 20th 2021</div>

           <div className="expense-item\_\_description">

               <h2>Paid Carpenter</h2>

               <p className="expense-item\_\_price">Rs 75000</p>

           </div>

       </div>

   )

}

export default ExpenseItem;

ExpenseItem.css

.expense-item {

display: flex;

justify-content: space-between;

align-items: center;

box-shadow: 0 2px 8px rgba(0, 0, 0, 0.25);

padding: 0.5rem;

margin: 1rem 0;

border-radius: 12px;

background-color: #4b4b4b6e;

}

.expense-item\_\_description {

display: flex;

flex-direction: column;

gap: 1rem;

align-items: flex-end;

flex-flow: column-reverse;

justify-content: flex-start;

flex: 1;

}

.expense-item h2 {

color: #3a3a3a42;

font-size: 1rem;

flex: 1;

margin: 0 1rem;

color: white;

}

.expense-item\_\_price {

font-size: 1rem;

font-weight: bold;

color: white;

background-color: #40005d;

border: 1px solid white;

padding: 0.5rem;

border-radius: 12px;

}

@media (min-width: 580px) {

.expense-item\_\_description {

flex-direction: row;

align-items: center;

justify-content: flex-start;

flex: 1;

}

.expense-item\_\_description h2 {

font-size: 1.25rem;

}

.expense-item\_\_price {

font-size: 1.25rem;

padding: 0.5rem 1.5rem;

}

}

**Outputting dynamic content**

import "./ExpenseItem.css"

const ExpenseItem = () => {

    const expDate = new Date(2021, 7, 11);

    const expTitle = "Paid carpenter";

    const expAmount = 75000

   return (

       <div className="expense-item">

{/\* single and multiline comments in JSX \*/}

           <div>{expDate.toISOString()}</div>

           <div className="expense-item\_\_description">

               <h2>{expTitle}</h2>

               <p className="expense-item\_\_price">Rs {expAmount}</p>

           </div>

       </div>

   )

}

export default ExpenseItem;

//Person.js

const person = () => {

return <p>Hi Person i am {Math.floor(Math.random() \* 30)} years old</p>

}

export default person;

**Working with props:**

import HelloComponent from "./HelloComponent"

const MessageComponent = () => {

    return (<div><HelloComponent name="Shrilata" /></div>)

}

export default MessageComponent

const HelloComponent = (props) => {

    return (<h3>Hello, welcome {props.name} </h3>)

}

export default HelloComponent;

function App() {

  const expenses = [

    {

      title: 'Groceries',

      amount: 900,

      date: new Date(2020, 7, 14),

    },

    { title: 'New TV', amount: 34000, date: new Date(2021, 2, 12) },

    { title: 'SofaSet', amount: 25000, date: new Date(2021, 2, 28),

    }

  ];

  return (

    <div className="App">

      <h2>Welcome to React!</h2>

      <ExpenseItem expDate={expenses[0].date} expTitle={expenses[0].title} expAmount={expenses[0].amount}/>

      <ExpenseItem expDate={expenses[1].date} expTitle={expenses[1].title} expAmount={expenses[1].amount}/>

      <ExpenseItem expDate={expenses[2].date} expTitle={expenses[2].title} expAmount={expenses[2].amount}/>

    </div>

  );

}

export default App;

const ExpenseItem = (props) => {

    return (

        <div className="expense-item">

            <div>{props.expDate.toISOString()}</div>

            <div className="expense-item\_\_description">

                <h2>{props.expTitle}</h2>

                <p className="expense-item\_\_price">Rs {props.expAmount}</p>

            </div>

        </div>

    )

}

export default ExpenseItem;

**Splitting components Intro:**

const ExpenseItem = (props) => {

    const month = props.expDate.toLocaleString('en-US', {month: 'long'});

    const day = props.expDate.toLocaleString('en-US', {day: '2-digit'});

    const year = props.expDate.getFullYear();

    return (

        <div className="expense-item">

            <div>

               <div>{month}</div>

                <div>{day}</div>

                <div>{year}</div>

            </div>

            <div className="expense-item\_\_description">

                <h2>{props.expTitle}</h2>

                <p className="expense-item\_\_price">Rs {props.expAmount}</p>

            </div>

        </div>

    )

}

**Splitting components further: Decluttering of components**

import ExpenseDate from "./ExpenseDate";

const ExpenseItem = (props) => {

   return (

       <div className="expense-item">

           <ExpenseDate expDate={props.expDate}/>

           <div className="expense-item\_\_description">

               <h2>{props.expTitle}</h2>

               <p className="expense-item\_\_price">Rs {props.expAmount}</p>

           </div>

       </div>

   )

}

export default ExpenseItem;

import "./ExpenseDate.css"

const ExpenseDate = (props) => {

    const month = props.expDate.toLocaleString('en-US', {month: 'long'});

    const day = props.expDate.toLocaleString('en-US', {day: '2-digit'});

    const year = props.expDate.getFullYear();

    return (

        <div className="expense-date">

            <div className="expense-date\_\_month">{month}</div>

            <div className="expense-date\_\_day">{day}</div>

            <div className="expense-date\_\_year">{year}</div>

        </div>

    );

}

export default ExpenseDate;

ExpenseDate.css

.expense-date {

display: flex;

flex-direction: column;

width: 5.5rem;

height: 5.5rem;

border: 1px solid #ececec;

background-color: #2a2a2a;

color: white;

border-radius: 12px;

align-items: center;

justify-content: center;

}

.expense-date\_\_month {

font-size: 0.75rem;

font-weight: bold;

}

.expense-date\_\_year {

font-size: 0.75rem;

}

.expense-date\_\_day {

font-size: 1.5rem;

font-weight: bold;

}

**Events and event handling**

const ExpenseItem = (props) => {

    let btnHandler = () => {

       console.log("Button clicked!")

   }

   return (

       <div className="expense-item">

           <ExpenseDate date={props.expDate}/>

           <div className="expense-item\_\_description">

               <h2>{props.expTitle}</h2>

               <p className="expense-item\_\_price">Rs {props.expAmount}</p>

           </div>

           <button onClick={btnHandler}>Change Title</button>

       </div>

   )

}

export default ExpenseItem;

**Stateful components : UseState**

import React, {useState} from 'react';

const UseStateComponent = () => {

    const [counter, setCounter] = useState(0);  //hooks go here

    const btnHandler = () => {

        setCounter(counter+1);

        console.log(counter, "  button clicked")

     }

    return(

           <div>

              Counter : {counter} &nbsp;&nbsp;

              <button onClick={btnHandler}>increment counter</button>

           </div>

        );

}

export default UseStateComponent;

import React, {useState} from 'react'

const ExpenseItem = (props) => {

    const [title, setTitle] = useState(props.expTitle);

    let btnHandler = () => {

        setTitle("updated expense")

       console.log("Button clicked!")

   }

   return (

       <div className="expense-item">

           <ExpenseDate date={props.expDate}/>

           <div className="expense-item\_\_description">

               <h2>{title}</h2>

               <p className="expense-item\_\_price">Rs {props.expAmount}</p>

           </div>

           <button onClick={btnHandler}>Change Title</button>

       </div>

   )

}

export default ExpenseItem;

**New Expense Form**

import ExpenseForm from "./ExpenseForm";

import './NewExpense.css'

const NewExpense = () => {

    return (

        <div className="new-expense">

            <ExpenseForm />

        </div>

    )

}

export default NewExpense;

import './ExpenseForm.css'

const ExpenseForm = () => {

    return(

        <form >

            <div className="new-expense\_\_controls">

               <div className="new-expense\_\_control">

                   <label>Title</label>

                   <input/>

               </div>

               <div className="new-expense\_\_control">

                   <label>Amount</label>

                   <input type="number" />

               </div>

               <div className="new-expense\_\_control">

                   <label>Date</label>

                   <input type="date" min="2019-01-01" max="2022-12-31"  />

               </div>

            </div>

            <div className="new-expense\_\_actions">

                <button type="button"  >Cancel</button>

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

            </div>

        </form>

      );

}

export default ExpenseForm

import "./ExpenseForm.css"

import React, {useState} from 'react';

const ExpenseForm = (props) => {

    //ExpenseForm

    const [inputTitle, setInputTitle] = useState('')

    const [inputAmount, setInputAmount] = useState('')

    const [inputDate, setInputDate] = useState('')

    const titleChangeHandler = (event) => {

        setInputTitle(event.target.value)

    }

    const amountChangeHandler = (event) => {

        setInputAmount(event.target.value)

    }

    const dateChangeHandler = (event) => {

        //setInputDate(new Date(event.target.value))

        setInputDate(event.target.value)

    }

    const submitHandler = (event) => {

        event.preventDefault();

        const expenseData = {

            title:inputTitle,

            amount:inputAmount,

            date:new Date(inputDate)

        }

        console.log(expenseData)

        //props.onSaveExpenseData(expenseData);

        setInputAmount('')

        setInputDate('')

        setInputTitle('')

    }

    return(

      <form onSubmit={submitHandler}>

          <div className="new-expense\_\_controls">

             <div className="new-expense\_\_control">

                 <label>Title</label>

                 <input value={inputTitle} onChange={titleChangeHandler}/>

             </div>

             <div className="new-expense\_\_control">

                 <label>Amount</label>

                 <input type="number" value = {inputAmount} onChange={amountChangeHandler}/>

             </div>

             <div className="new-expense\_\_control">

                 <label>Date</label>

                 <input type="date" value={inputDate} min="2019-01-01" max="2022-12-31" onChange={dateChangeHandler} />

             </div>

          </div>

          <div className="new-expense\_\_actions">

              {/\* <button type="button" onClick={props.onCancel} >Cancel</button> \*/}

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

          </div>

      </form>

    );

}

export default ExpenseForm;

import ExpenseForm from "./ExpenseForm";

import "./NewExpense.css"

import React, {useState} from 'react';

const NewExpense = (props) => {

    /\*const [showForm, setShowForm] = useState(false)

    const showFormHandler = () => {

        setShowForm(true)

    }

    const stopShowForm = () => {

        setShowForm(false)

    }\*/

    const saveExpenseDataHandler = (inputExpenseData) => {

        const expenseData = {

            ...inputExpenseData,

            id:Math.random().toString()

        }

        //console.log("In NewExpense ",expenseData)

        props.onAddExpense(expenseData)

    }

    return(

        <div className="new-expense">

           {/\* {!showForm && <button onClick={showFormHandler}>Add New Expense </button>}

            {showForm && <ExpenseForm onCancel={stopShowForm} onSaveExpenseData={saveExpenseDataHandler}/>}\*/}

<ExpenseForm onSaveExpenseData={saveExpenseDataHandler}/>

        </div>

    );

}

export default  NewExpense;

NewExpense.css

.new-expense {

    background-color: #a892ee;

    padding: 1rem;

    margin: 2rem auto;

    width: 50rem;

    max-width: 95%;

    border-radius: 12px;

    text-align: center;

    box-shadow: 0 1px 8px rgba(0, 0, 0, 0.25);

  }

  .new-expense button {

    font: inherit;

    cursor: pointer;

    padding: 1rem 2rem;

    border: 1px solid #40005d;

    background-color: #40005d;

    color: white;

    border-radius: 12px;

    margin-right: 1rem;

  }

  .new-expense button:hover,

  .new-expense button:active {

    background-color: #510674;

    border-color: #510674;

  }

  .new-expense button.alternative {

    color: #220131;

    border-color: transparent;

    background-color: transparent;

  }

  .new-expense button.alternative:hover,

  .new-expense button.alternative:active {

    background-color: #ddb3f8;

  }

**ExpenseForm.css**

.new-expense\_\_controls {

    display: flex;

    flex-wrap: wrap;

    gap: 1rem;

    margin-bottom: 1rem;

    text-align: left;

  }

  .new-expense\_\_control label {

    font-weight: bold;

    margin-bottom: 0.5rem;

    display: block;

  }

  .new-expense\_\_control input {

    font: inherit;

    padding: 0.5rem;

    border-radius: 6px;

    border: 1px solid #ccc;

    width: 20rem;

    max-width: 100%;

  }

  .new-expense\_\_actions {

    text-align: right;

  }

**App.js**

import './App.css';

import MessageComponent from './Person/MessageComponent';

import Person from './Person/Person';

import ExpenseItem from './components/ExpenseItem';

import NewExpense from './components/NewExpense/NewExpense';

import UseStateComponent from './components/UseStateComponent';

function App() {

  const expenses = [

    {title:"Shopping", amount:2000, date:new Date(2022, 1, 2)},

    {title:"Groceries", amount:7000, date:new Date(2022, 5, 6)},

    {title:"Movies", amount:4000, date:new Date(2022, 1, 5)}

  ]

  const addExpenseHandler = expense => {

    console.log("In App component ", expense)

  }

  return (

    <div>

      <NewExpense onAddExpense={addExpenseHandler} />

      //rest of your code

    </div>

  );

}

export default App;

**Working with Lists**

const ListComponent = () => {

    let arr = [1,2,3,4,5]

    let updatedArr = arr.map(num => {

        return <li>{num\*num}</li>

    })

    const items =[{name:'Item-1'}, {name:'Item-2'}]

    const updatedItems = items.map(item => (

            <p>{item.name}</p>

    ))

    const students = [{name:"Anita",rollno:101},

                      {name:"Sunita",rollno:102},

                      {name:"Kavita",rollno:103}]

    const updatedStudents = students.map(student => (

                <tr>

                    <td>{student.name} </td>

                    <td>{student.rollno} </td>

                </tr>

))

    return (

        <div>

            <h2>Numbers arr : </h2> {updatedArr}

            <h2>Items : </h2>  {updatedItems}

            <h2>Student Data</h2>

            <table border="1">

                <tr><th>Name</th><th>Roll no</th></tr>

                {updatedStudents}

            </table>

        </div>

    )

}

export default ListComponent

**app.js**

const DUMMY\_EXP = [

   { title: 'Groceries', amount: 900, date: new Date(2020, 7, 14)},

   { title: 'New TV', amount: 34000, date: new Date(2021, 2, 12) },

   { title: 'New Sofa Set', amount: 25000, date: new Date(2021, 2, 28)}

  ];

function App() {

  let [expenses, setExpenses] = useState(DUMMY\_EXP);

  /\*const expenses = [

    {title:"Shopping", amount:2000, date:new Date(2022, 1, 2)},

    {title:"Groceries", amount:7000, date:new Date(2022, 5, 6)},

    {title:"Movies", amount:4000, date:new Date(2022, 1, 5)}

  ]\*/

  const addExpenseHandler = expense => {

    console.log("In App component ", expense)

    setExpenses(prevArr => {return [expense, ...prevArr]})

    //console.log("Expense list ", expenses)

  }

  return (

    <div>

      <NewExpense onAddExpense={addExpenseHandler} />

      <h2>Let's get started!</h2>

      {expenses.map(expense =>

                   <ExpenseItem expDate={expense.date}

                                expTitle={expense.title}

                                expAmount={expense.amount} />)}

      {/\*<ExpenseItem expDate={expenses[0].date} expTitle={expenses[0].title} expAmount={expenses[0].amount}/>

      <ExpenseItem expDate={expenses[1].date} expTitle={expenses[1].title} expAmount={expenses[1].amount}/>

      <ExpenseItem expDate={expenses[2].date} expTitle={expenses[2].title} expAmount={expenses[2].amount}/>

    \*/}

      <Person name="Shrilata" age="52"/>

      <Person name="Soha" age="29"/>

      <Person name="Arnav" age="20"/>

      {/\*<MessageComponent />\*/}

      {/\*<UseStateComponent />\*/}

      {/\*<ClickCounter />\*/}

      <ListComponent />

    </div>

  );

}

export default App;

**ExpenseItem.js**

import { useState } from "react";

import ExpenseDate from "./ExpenseDate";

import "./ExpenseItem.css";

const ExpenseItem = (props) => {

   const [title, setTitle] = useState(props.expTitle);

    let

    btnHandler = () => {

        //setTitle("Updated Expense")

        console.log("Button clicked")

    }

    return (

        <div className="expense-item">

            <ExpenseDate expDate={props.expDate}></ExpenseDate>

            <div className="expense-item\_\_description">

                <h2>{props.expTitle}</h2>

                <p className="expense-item\_\_price">Rs {props.expAmount}</p>

            </div>

            <button onClick={btnHandler}>Change Title</button>

        </div>

    )

}

export default ExpenseItem;

**Class based components:**

import './User.css';

import React, {Component} from 'react';

class User extends Component{

render(){

// return <li className={user}>{props.name}</li>;

return <li className='user'>Hello User</li>

}

};

export default User;

import React, {Component} from 'react';

import classes from './Users.css';

const DUMMY\_USERS = [

    { id: 'u1', name: 'Max' },

    { id: 'u2', name: 'Manuel' },

    { id: 'u3', name: 'Julie' },

  ];

class Users extends Component{

    render(){

        return(<h2>Hello User</h2>)

    }

}

export default Users;

CounterComponent.js

import { Component } from "react";

class CounterComponent extends Component{

   state = {counter:1}

   btnHandler = () => {

     this.setState({counter: this.state.counter +1})

   }

   render(){

      return (

        <div>

            <div>Counter : {this.state.counter}</div>

            <button onClick={this.btnHandler}>Increment</button>

        </div>

      )

   }

}

export default CounterComponent