

1) To start with react:

Code: `npx create-react-app my-app`

`cd my-app`

`npm start`

2) IN `index.js`:

```
import React from 'react';
import ReactDOM from 'react-dom';
import './index.css';
import App from './App';

ReactDOM.render(<App />, (document.getElementById('root')));
```

`index.css`:

```
@import
url('https://fonts.googleapis.com/css2?family=Noto+Sans+JP:wght@400;700&display=swap');

* {
  box-sizing: border-box;
}

html {
  font-family: 'Noto Sans JP', sans-serif;
}

body {
  margin: 0;
  background :url("./assests/logo.png") no-repeat left top;
}
```

3) IN `App.js`

```
import './App.css';

function App() {
  return (
    <div className="App">
      <h2>hello buddy</h2>
    </div>
  );
}

export default App;
```

4) Create a component "ExpenseItem.js" in Component folder

Js code:

```
import './ExpenseItem.css';

function Expenseitem(){
  return (<div className="expense-item">
    <div >March,12,2022</div>
    <div className="expense-tem__description">
      <h2>HOME Insurence</h2>
      <div className="expense-item__prices">$400</div>
    </div>
  </div>);
}

export default Expenseitem;
```

ExpenseItem.css:

```
.expense-item {
  border-radius: 22px;
  display: flex;
  justify-content: space-between;
  align-items: center;
  padding: 0.5rem;
  margin: 1rem 0;
  background-color: #34495e;
}

.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: #3a3a3a;
  font-size: 1rem;
  flex: 1;
  margin: 0 1rem;
  color: white;
}

.expense-item__price {
  font-size: 1rem;
  font-weight: bold;
  color: white;
  background-color: #30336b;
  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;
    }
  }
}

```

5) Use of props

IN "App.js":

```

import ExpenseItem from "../components/ExpenseItem";

function App() {
  let expenseDate=new Date(2021,3,28);
  let expenseTitle="School Insurence";
  let expenseAmount=300;
  return (
    <ExpenseItem
      date={expenseDate}
      title={expenseTitle}
      amount={expenseAmount}/>
  );
}

export default App;

```

IN "ExpenseItem.js:

```

import "../ExpenseItem.css";
function ExpenseItem(probs){
  const month=probs.date.toLocaleString('en-US',{month:'long'});
  const year=probs.date.getFullYear();
  const day=probs.date.toLocaleString('en-US',{day:'2-digit'});
  return (<div className="expense-item">

```

```

    <div >
      <div>{month}</div>
      <div>{year}</div>
      <div>{day}</div>
    </div>
    <div className="expense-item__description">
      <h2>{probs.title}</h2>
      <div className="expense-item__price">{probs.amount}</div>
    </div>
  </div>
);
}
export default ExpenseItem;

```

6) In App.js:Multiple Components

```

import ExpenseItem from "../components/ExpenseItem";

function App() {
  let expense=[{
    id:'E1',
    title:'College Insurence',
    amount:250,
    date:new Date(2021,5,12)
  },
  {
    id:'E2',
    title:'Home Insurence',
    amount:350,
    date:new Date(2021,4,12)
  },
  {
    id:'E3',
    title:'School Insurence',
    amount:650,
    date:new Date(2021,3,12)
  },
  {
    id:'E4',
    title:'Bike Insurence',
    amount:550,
    date:new Date(2021,2,12)
  }
  ];

  return (<div>

```

```

    <ExpenseItem
      date={expense[0].date}
      title={expense[0].title}
      amount={expense[0].amount}/>
    <ExpenseItem
      date={expense[1].date}
      title={expense[1].title}
      amount={expense[1].amount}/>
    <ExpenseItem
      date={expense[2].date}
      title={expense[2].title}
      amount={expense[2].amount}/>
    <ExpenseItem
      date={expense[3].date}
      title={expense[3].title}
      amount={expense[3].amount}/>
  </div>
);
}

export default App;

```

In “ExpenseItem.js”: For designing

```

import './ExpenseItem.css';
function ExpenseItem(probs){
  const month=probs.date.toLocaleString('en-US',{month:'long'});
  const year=probs.date.getFullYear();
  const day=probs.date.toLocaleString('en-US',{day:'2-digit'});
  return (<div className="expense-item">
    <div className="expense-date">
      <div className="expense-date__month">{month}</div>
      <div className="expense-date__year">{year}</div>
      <div className="expense-date__day">{day}</div>
    </div>
    <div className="expense-item__description">
      <h2>{probs.title}</h2>
      <div className="expense-item__price">{probs.amount}</div>
    </div>
  </div>
  );
}
export default ExpenseItem;

```

In “ExpenseItem.css”:

```

.expense-item {
  border-radius: 22px;
  display: flex;
  justify-content: space-between;
  align-items: center;

```

```
padding: 0.5rem;
margin: 1rem 0;
background-color: #34495e;
}

.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: #3a3a3a;
  font-size: 1rem;
  flex: 1;
  margin: 0 1rem;
  color: white;
}

.expense-date {
  display: flex;
  flex-direction: column;
  width: 5.5rem;
  height: 5.5rem;
  border: 1px solid #ecec;
  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;
}
```

```

.expense-item__price {
  font-size: 1rem;
  font-weight: bold;
  color: white;
  background-color: #30336b;
  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;
  }
}

```

7) NESTED COmponests

In App.js:

```

import Expenses from "../components/Expenses";

function App() {
  let expense=[{
    id:'E1',
    title:'College Insurence',
    amount:250,
    date:new Date(2021,5,12)
  },
  {
    id:'E2',
    title:'Home Insurence',
    amount:350,
    date:new Date(2021,4,12)
  },
  {
    id:'E3',

```

```

    title:'School Insurence',
    amount:650,
    date:new Date(2021,3,12)
  },
  {
    id:'E4',
    title:'Bike Insurence',
    amount:550,
    date:new Date(2021,2,12)
  }
];

return (
  <Expenses items={expense}/>
);
}

export default App;

```

IN Expenses.js:

```

import ExpenseItem from "../ExpenseItem";
import "../Expenses.css";
function Expenses(probs){

  return (
    <div className="expenses">
      <ExpenseItem
date={probs.items[0].date}
title={probs.items[0].title}
amount={probs.items[0].amount}/>
      <ExpenseItem
date={probs.items[1].date}
title={probs.items[1].title}
amount={probs.items[1].amount}/>
      <ExpenseItem
date={probs.items[2].date}
title={probs.items[2].title}
amount={probs.items[2].amount}/>
      <ExpenseItem
date={probs.items[3].date}
title={probs.items[3].title}
amount={probs.items[3].amount}/>
    </div>
  );
}

export default Expenses;

```


IN "Expenses.css":

```
.expenses {
  padding: 1rem;
  background-color: rgb(54, 56, 65);
  margin: 2rem auto;
  width: 50rem;
  max-width: 95%;
}
```

8) useState() in React

In "ExpenseItem.js":

```
import React,{useState} from "react";
import "./ExpenseItem.css";
function ExpenseItem(probs){
  const [title,setTitle]=useState(probs.title);

  const clickHandler=()=>{
    setTitle("new title");
  }

  const month=probs.date.toLocaleString('en-US',{month:'long'});
  const year=probs.date.getFullYear();
  const day=probs.date.toLocaleString('en-US',{day:'2-digit'});
  return (<div className="expense-item">
    <div className="expense-date">
      <div className="expense-date__month">{month}</div>
      <div className="expense-date__year">{year}</div>
      <div className="expense-date__day">{day}</div>
    </div>
    <div className="expense-item__description">
      <h2>{title}</h2>
      <div className="expense-item__price">{probs.amount}</div>
    </div>
    <button onClick={clickHandler}>click Here</button>
  </div>
  );
}
export default ExpenseItem;
```

9) Input Handles:

In "ExpenseItem.js":

Code:

```
import React,{useState} from "react";
import "./ExpenseItem.css";
function ExpenseItem(probs){
  const [title,setTitle]=useState(probs.title);
  const [newtitle,setnewtitle]=useState("");

  const clickHandler={()=>{
    setTitle(newtitle);
  }}
  const changeHandler=(event)=>{
    setnewtitle(event.target.value);
  }

  const month=probs.date.toLocaleString('en-US',{month:'long'});
  const year=probs.date.getFullYear();
  const day=probs.date.toLocaleString('en-US',{day:'2-digit'});
  return (<div className="expense-item">
    <div className="expense-date">
      <div className="expense-date__month">{month}</div>
      <div className="expense-date__year">{year}</div>
      <div className="expense-date__day">{day}</div>
    </div>
    <div className="expense-item__description">
      <h2>{title}</h2>
      <div className="expense-item__price">{probs.amount}</div>
    </div>
    <input type="text" value={newtitle} onChange={changeHandler}></input>
    <button onClick={clickHandler}>click Here</button>
  </div>
  );
}
export default ExpenseItem;
```

10) Two way binding , send data to parent components:

IN "ExpenseItem.js":

```
import React,{useState} from "react";
import "./ExpenseItem.css";
function ExpenseItem(probs){

  const month=probs.date.toLocaleString('en-US',{month:'long'});
  const year=probs.date.getFullYear();
  const day=probs.date.toLocaleString('en-US',{day:'2-digit'});
  return (<div className="expense-item">
    <div className="expense-date">
      <div className="expense-date__month">{month}</div>
      <div className="expense-date__year">{year}</div>
      <div className="expense-date__day">{day}</div>
    </div>
    <div className="expense-item__description">
      <h2>{probs.title}</h2>
      <div className="expense-item__price">{probs.amount}</div>
    </div>
  </div>
  );
}
export default ExpenseItem;
```

a) Create "NewExpense.js":

```
import React from "react";

import ExpenseForm from "../Expenseform";

import './NewExpense.css'

const NewExpense = (props) =>{
  const saveExpenseDataHandler = (enteredExpenseData) => {
    const expenseData = {
      ...enteredExpenseData,
      id: Math.random().toString()
    }

    props.onAddExpense(expenseData);

    console.log(expenseData);
  };

  return(
    <div className='new-expense'>
      <ExpenseForm
        onSaveExpenseData={saveExpenseDataHandler}/>
    </div>
  );
}

export default NewExpense;
```

IN "NewExpense.css":

```
.new-expense {

background-color: #92eee9;
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;
}

```

b) Create "Expenseform.js":

```

import React, { useState } from "react";

import './Expenseform.css';

const ExpenseForm = (props) => {

  const [enteredTitle, setEnteredTitle] = useState('');
  const [enteredAmount, setEnteredAmount] = useState('');
  const [enteredDate, setEnteredDate] = useState('');

  const titleChangeHandler = (event) => {
    setEnteredTitle(event.target.value);
  };
  const amountChangeHandler = (event) => {
    setEnteredAmount(event.target.value);
  };
  const dateChangeHandler = (event) => {
    setEnteredDate(event.target.value);
  };

  const submitHandler = (event) => {
    event.preventDefault();
  };

```

```

    const expenseData = {
      title: enteredTitle,
      amount: enteredAmount,
      date: new Date(enteredDate)
    }
    props.onSaveExpenseData(expenseData);

    console.log(expenseData);

    setEnteredTitle('');
    setEnteredAmount('');
    setEnteredDate('');
  };

  return (
    <form onSubmit={submitHandler}>
      <div className="new-expense__controls">
        <div className="new-expense__control">
          <label>Title</label>
          <input type="text" value={enteredTitle}
onChange={titleChangeHandler} />
        </div>
        <div className="new-expense__control">
          <label>Amount</label>
          <input type="number" value={enteredAmount} min="0.01"
step="0.01" onChange={amountChangeHandler} />
        </div>
        <div className="new-expense__control">
          <label>Date</label>
          <input type="date" value={enteredDate}
onChange={dateChangeHandler} />
        </div>
      </div>
      <div className="new-expense__actions">
        <button type="submit">Add Expense</button>
      </div>
    </form>
  );
}

export default ExpenseForm;

```

In "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;
}
```

In App.js:

```
import Expenses from "../component/Expenses";
import NewExpense from "../component/NewExpense";

function App() {
  let expense=[{
    id:'E1',
    title:'College Insurence',
    amount:250,
    date:new Date(2021,5,12)
  },
  {
    id:'E2',
    title:'Home Insurence',
    amount:350,
    date:new Date(2021,4,12)
  },
  ];
```

```

{
  id:'E3',
  title:'School Insurence',
  amount:650,
  date:new Date(2021,3,12)
},
{
  id:'E4',
  title:'Bike Insurence',
  amount:550,
  date:new Date(2021,2,12)
}
];
const addExpenseHandler=(expenses)=>{
  console.log(expenses);
}

return (<div>
  <NewExpense onAddExpense={addExpenseHandler}/>
  <Expenses items={expense}/>
</div>
);
}

export default App;

```

11) Rendering in list:

IN "Expenses.js" - Use of map function:

```

import ExpenseItem from "../ExpenseItem";
import "../Expenses.css";
function Expenses(probs){

  return (
    <div className="expenses">
      {probs.items.map(
        expense => (
          <ExpenseItem
            key={ expense.id }
            date={ expense.date }
            title={ expense.title }
            amount={ expense.amount } />
          )
        )}
    </div>
  );
}

```



```
}  
export default Expenses;
```

IN "App.js":

```
import React, {useState} from "react";  
import Expenses from "../component/Expenses";  
import NewExpense from "../component/NewExpense";  
let dummy =[  
  {  
    id:'E1',  
    title:'College Insurence',  
    amount:250,  
    date:new Date(2021,5,12)  
  },  
  {  
    id:'E2',  
    title:'Home Insurence',  
    amount:350,  
    date:new Date(2021,4,12)  
  },  
  {  
    id:'E3',  
    title:'School Insurence',  
    amount:650,  
    date:new Date(2021,3,12)  
  },  
  {  
    id:'E4',  
    title:'Bike Insurence',  
    amount:550,  
    date:new Date(2021,2,12)  
  }  
];  
  
function App() {  
  const [expense, setExpenses] = useState(dummy);  
  
  const addExpenseHandler=(expenses)=>{  
    const updatexpense=[expenses,...expense];  
    setExpenses(updatexpense);  
  }  
  
  return (<div>  
    <NewExpense onAddExpense={addExpenseHandler}/>  
    <Expenses items={expense}/>  
  </div>  
>);
```

```
}  
  
export default App;
```

12)