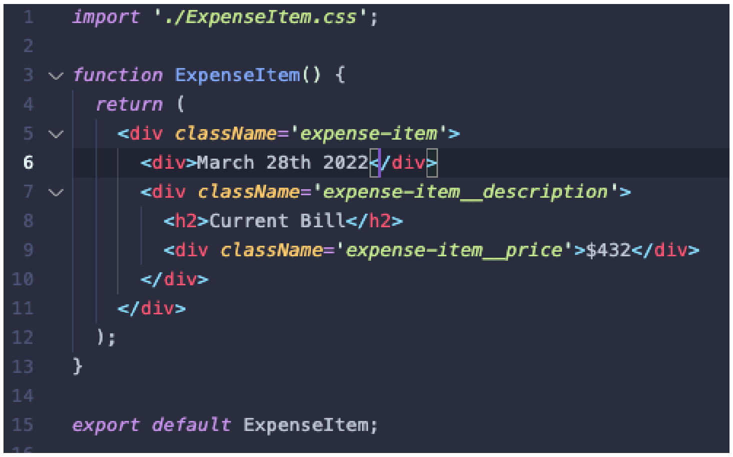
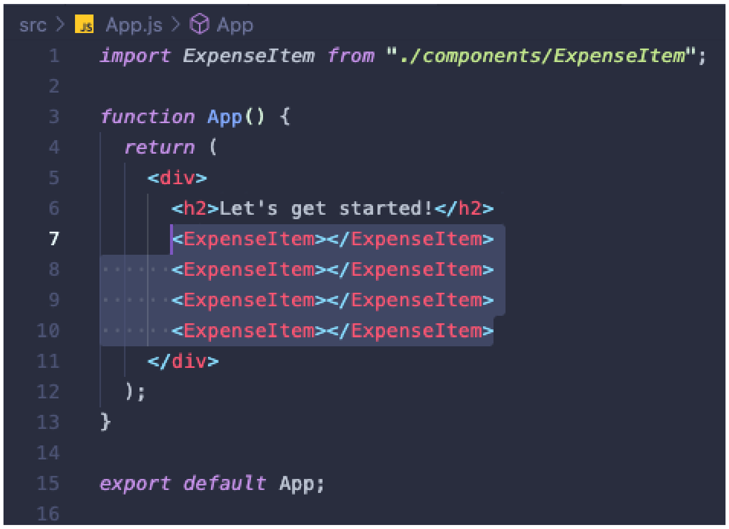
7. Props

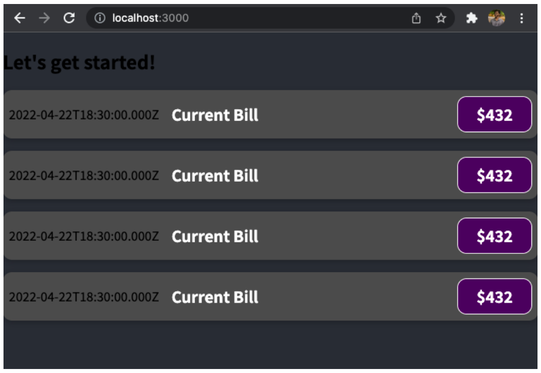
- In the last lecture, we learnt how to pass an dynamic data to JSX so that it could be rendered in our app
- Recall our custom component
    - 

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

      function ExpenseItem() {
        return (
          <div className='expense-item'>
            <div>March 28th 2022</div>
            <div className='expense-item__description'>
              <h2>Current Bill</h2>
              <div className='expense-item__price'>$432</div>
            </div>
          </div>
        );
      }

      export default ExpenseItem;
      ```

        - Here we have created the custom component
    - 

      src > App.js > App

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

      function App() {
        return (
          <div>
            <h2>Let's get started!</h2>
            <ExpenseItem></ExpenseItem>
            <ExpenseItem></ExpenseItem>
            <ExpenseItem></ExpenseItem>
            <ExpenseItem></ExpenseItem>
          </div>
        );
      }

      export default App;
      ```

        - Here ExpenseItem is the component which is being used
        - Which renders this
    - 

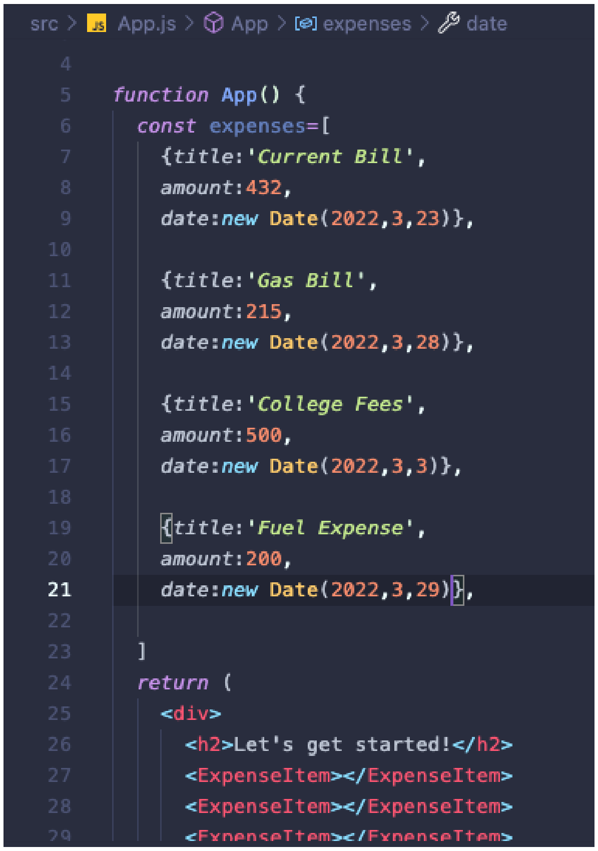
      Let's get started!

      2022-04-22T18:30:00.000Z Current Bill $432

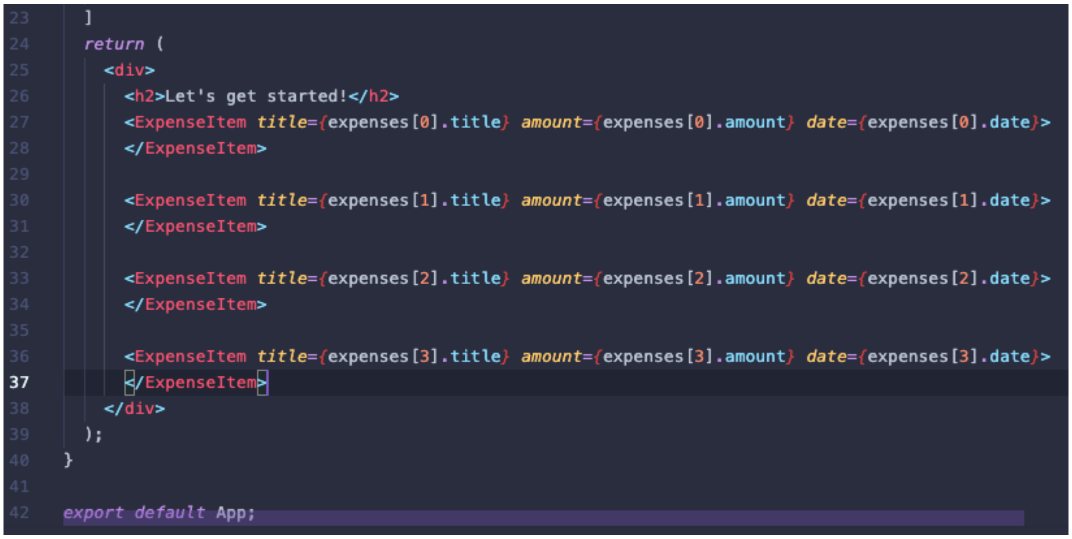
      2022-04-22T18:30:00.000Z Current Bill $432

      2022-04-22T18:30:00.000Z Current Bill $432

      2022-04-22T18:30:00.000Z Current Bill $432

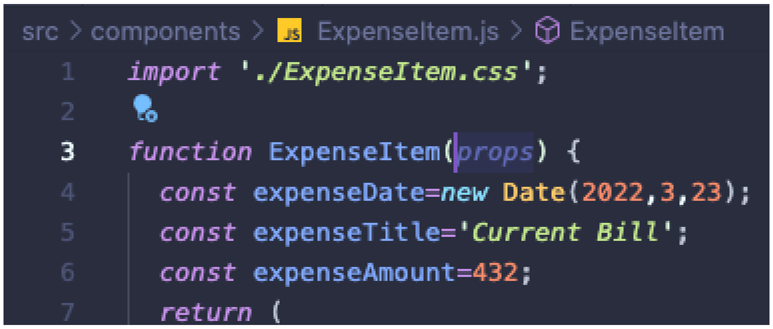
- Here technically we have reused the component, but the data’s residing in that components are same
- By using props we could render the dynamic data
- In app.js we have used our custom component, there we could pass the values
    - Before that let us have a array of objects which may be come from database later
    - 

```
function App() {
  const expenses=[
    {title:'Current Bill',
    amount:432,
    date:new Date(2022,3,23)},

    {title:'Gas Bill',
    amount:215,
    date:new Date(2022,3,28)},

    {title:'College Fees',
    amount:500,
    date:new Date(2022,3,3)},

    {title:'Fuel Expense',
    amount:200,
    date:new Date(2022,3,29)},

  ]
  return (
    <div>
      <h2>Let's get started!</h2>
      <ExpenseItem></ExpenseItem>
      <ExpenseItem></ExpenseItem>
      <ExpenseItem></ExpenseItem>
```

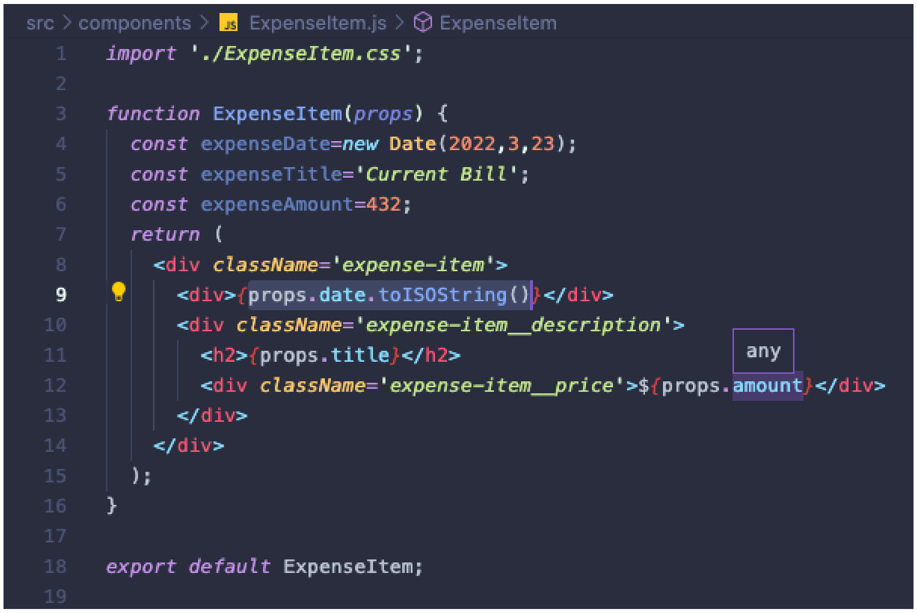
    - We could pass this values by as we pass attributes in our html elements
        - Like this : <Expenseitem title=’ ’ date=’ amount=’ ‘’></ExpenseItem>
        - 

```
  ]
  return (
    <div>
      <h2>Let's get started!</h2>
      <ExpenseItem title={expenses[0].title} amount={expenses[0].amount} date={expenses[0].date}>
      </ExpenseItem>

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

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

      <ExpenseItem title={expenses[3].title} amount={expenses[3].amount} date={expenses[3].date}>
      </ExpenseItem>
    </div>
  );
}

export default App;
```

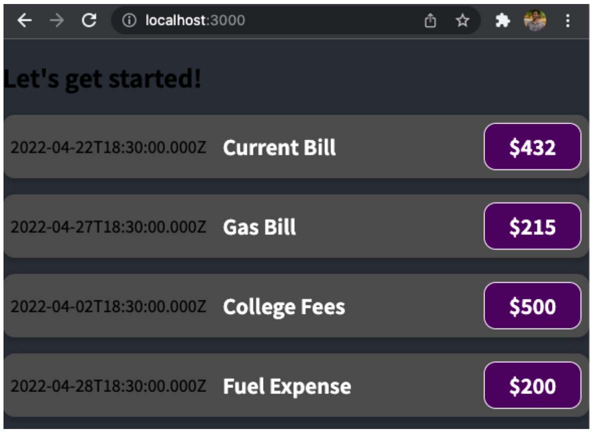
    - But before that we must make this component to allow to accept this values

- This can be done using props
    - 

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

function ExpenseItem(props) {
  const expenseDate=new Date(2022,3,23);
  const expenseTitle='Current Bill';
  const expenseAmount=432;
  return (
```

    - In app.js while using the component expenseitem we have passed three attributes which will be converted into a single object containing all the attributes as a property,then this object will be passed to the function as a parameter
    - Here we have named the parameter as props but actually we could use any name, but this is the common convention
    - 

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

function ExpenseItem(props) {
  const expenseDate=new Date(2022,3,23);
  const expenseTitle='Current Bill';
  const expenseAmount=432;
  return (
    <div className='expense-item'>
      <div>{props.date.toISOString()}</div>
      <div className='expense-item__description'>
        <h2>{props.title}</h2>
        <div className='expense-item__price'>${props.amount}</div>
      </div>
    </div>
  );
}

export default ExpenseItem;

```

        - Here we could access those attributes like this
        - 

```
Let's get started!
2022-04-22T18:30:00.000Z  Current Bill   $432
2022-04-27T18:30:00.000Z  Gas Bill       $215
2022-04-02T18:30:00.000Z  College Fees   $500
2022-04-28T18:30:00.000Z  Fuel Expense   $200
```