todo list

write a todo app for react js that can add and delete

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Sure, here's a simple Todo app in React that allows users to add and delete items:

```
jsxCopy code
import React, { useState } from 'react';

function TodoApp() {
  const [todos, setTodos] = useState([]);
  const [inputValue, setInputValue] = useState('');

  const handleInputChange = (event) => {
    setInputValue(event.target.value);
  };

  const handleAddTodo = () => {
    if (inputValue.trim() !== '') {
      setTodos([...todos, inputValue]);
      setInputValue('');
    }
  };

  const handleDeleteTodo = (index) => {
    const newTodos = [...todos];
    newTodos.splice(index, 1);
    setTodos(newTodos);
  };

  return (
    <div>
```

```
      <h1>Todo App</h1>
      <input
        type="text"
        value={inputValue}
        onChange={handleInputChange}
        placeholder="Enter your todo"
      />
      <button onClick={handleAddTodo}>Add Todo</button>
      <ul>
        {todos.map((todo, index) => (
          <li key={index}>
            {todo}
            <button onClick={() => handleDeleteTodo(index)}>Delete</button>
          </li>
        ))}
      </ul>
    </div>
  );
}

export default TodoApp;
```

This code defines a functional component `TodoApp` that uses React hooks for managing state (`useState`). It maintains an array of todos (`todos`) and an input field (`inputValue`) for adding new todos.

- `handleInputChange` updates the `inputValue` state as the user types in the input field.
- `handleAddTodo` adds a new todo to the `todos` array when the "Add Todo" button is clicked.
- `handleDeleteTodo` removes a todo from the `todos` array when the "Delete" button is clicked.

The component renders an input field, a button to add todos, and a list of todos with a delete button for each todo.

You

explain each and every line

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Certainly! Let's break down each line of the code and explain its purpose:

```
jsxCopy code
import React, { useState } from 'react';
```

- This line imports the `React` library and the `useState` hook from the `react` package. We need `React` to create React components, and `useState` is a hook that allows functional components to manage state.

```
jsxCopy code
function TodoApp() {
```

- This declares a functional component named `TodoApp`. Functional components are a way to define React components using JavaScript functions.

```
jsxCopy code
const [todos, setTodos] = useState([]);
const [inputValue, setInputValue] = useState('');
```

- These lines use the `useState` hook to declare state variables `todos` and `inputValue` and their corresponding updater functions `setTodos` and `setInputValue`. `useState([])` initializes `todos` with an empty array, and `useState('')` initializes `inputValue` with an empty string.

```
jsxCopy code
const handleInputChange = (event) => {
  setInputValue(event.target.value);
};
```

- This defines a function `handleInputChange` that updates the `inputValue` state with the current value of the input field. It is called whenever the value of the input field changes.

```
jsxCopy code
const handleAddTodo = () => {
  if (inputValue.trim() !== '') {
    setTodos([...todos, inputValue]);
    setInputValue('');
  }
};
```

- This defines a function `handleAddTodo` that adds a new todo to the `todos` array when the "Add Todo" button is clicked. It first checks if the `inputValue` is not empty, then it creates a new array by spreading the existing `todos` array and appending the new `inputValue` to it. After adding the todo, it resets the `inputValue` to an empty string.

```
jsxCopy code
const handleDeleteTodo = (index) => {
  const newTodos = [...todos];
  newTodos.splice(index, 1);
  setTodos(newTodos);
};
```

- This defines a function `handleDeleteTodo` that removes a todo from the `todos` array when the "Delete" button for that todo is clicked. It creates a copy of the `todos` array, removes the todo at the specified `index`, and updates the `todos` state with the new array.

```
jsxCopy code
return (
  <div>
    <h1>Todo App</h1>
    <input
      type="text"
      value={inputValue}
      onChange={handleInputChange}
      placeholder="Enter your todo"
    />
    <button onClick={handleAddTodo}>Add Todo</button>
    <ul>
      {todos.map((todo, index) => (
        <li key={index}>
          {todo}
          <button onClick={() => handleDeleteTodo(index)}>Del
ete</button>
        </li>
      ))}
    </ul>
  </div>
);
```

- This block of JSX code renders the UI of the `TodoApp` component. It consists of:
  - A heading "Todo App".
  - An input field for entering todos, bound to the `inputValue` state.
  - A button "Add Todo", which calls the `handleAddTodo` function when clicked.

    - A list (`ul`) of todos rendered using the `map` function. Each todo is displayed as a list item (`li`) with a delete button that calls the `handleDeleteTodo` function with the index of the todo to be deleted.

```
jsxCopy code
export default TodoApp;
```

- This exports the `TodoApp` component so that it can be imported and used in other parts of the application.