State

Why do we need to use state at first we need to show the problem

at first we create the a variable with num name:

```
var num = 0;
```

And one function to increase this var:

```
const increase = () => {
  num = num + 1;
  console.log(num)
};
```

onClick

you can add `onClick` property and add your function in to it and you can run the function every time you click that tag exactly like JavaScript but in JavaScript we had `onclick` in react we have `onClick`

```
<button onClick={increase} style={style}>+</button>
```

At the end we have this code:
we use the code we wrote in JSX document

```
import React from "react";
import "./App.css"
```

```jsx
export const App = () => {
  var num = 0;
  const increase = () => {
    num = num + 1;
    console.log(num)
  };

  const style = {
    color: "#fff",
    backgroundColor: "#f15e5e",
    border: "none",
    borderRadius: "10px",
    margin: "10px",
    width: "30px",
    height: "30px",
    alignItems: "center",
  };

  return (
    <>
      <div className="container">
        <h1>Counter</h1>
        <div style={{display:"flex", justifyContent:"center", alignItems:"center"}}>
          <button onClick={increase} style={style}>-</button>
          <h2>{num}</h2>
          <button onClick={increase} style={style}>+</button>
        </div>
      </div>
    </>
  );
};
```

```
export default App;
```

But you can see with clicking on + nothing change so in this case we need state

useState

To declare a state you need this code:

```
const [state, setState] = React.useState(0)
```

`state` : you can read data with this variable

`setState` : this a function to change value of state

`(0)` : initial the value of state with 0

If we want to change the value we need to code like this:

```
setState(s=>s+1)
```

Now we put this in function

```
const increase = () => {
  setState(s=>s+1)
};
```

now we can complete our code like this:

```
import React from "react";
import "./App.css"
```

```jsx
export const App = () => {
  const [state, setState] = React.useState(0)
  const increase = () => {
    setState(s=>s+1)
  };

  const decrease = () => {
    setState(s=>s-1)
  };

  const style = {
    color: "#fff",
    backgroundColor: "#f15e5e",
    border: "none",
    borderRadius: "10px",
    margin: "10px",
    width: "30px",
    height: "30px",
    alignItems: "center",
  };

  return (
    <>
      <div className="container">
        <h1>Counter</h1>
        <div style={{display:"flex", justifyContent:"center", alignItems:"center"}}>
          <button onClick={decrease} style={style}>-</button>
          <h2>{state}</h2>
          <button onClick={increase} style={style}>+</button>
        </div>
      </div>
    </>
```

```
    );
};


export default App;
```

Practice

Add record feature to our counter

Answer

At first we need to add state:

```
const [record, setRecord] = React.useState([]);
```

At the second we need to add function to add to our state:

```
  const recordCounter = () => {
    setRecord([ ...record, state]);
  };
```

Now we need to show or list with map:

Note:

- you need to use key every time you want to show list in your JSX to tell react every part of this list is unique

```
                <div style={{ display: "flex" }}>
          {record.map((item, index) => {
            return(
            <div
```

```
              key={index}
              style={{
                display: "flex",
                justifyContent: "center",
                alignItems: "center",
                flexDirection: "column",
                border: "1px solid #000",
                width: "100px",
                borderRadius: "10px",
                margin: "10px",
              }}
            >
              <h4>Record</h4>
              <p>{item}</p>
            </div>)
          })}
        </div>
```

Finally we have the complete code:

```
import React from "react";
import "./App.css";

export const App = () => {
  const [state, setState] = React.useState(0);
  const [record, setRecord] = React.useState([]);
  const increase = () => {
    setState(s=>s+1);
  };

  const decrease = () => {
```

```
    setState(s=>s-1);
  };

  const recordCounter = () => {
    setRecord([ ...record, state]);
  };

  const style = {
    color: "#fff",
    backgroundColor: "#f15e5e",
    border: "none",
    borderRadius: "10px",
    margin: "10px",
    minWidth: "30px",
    height: "30px",
    alignItems: "center",
  };



  return (
    <>
      <div className="container">
        <h1>Counter</h1>
        <div
          style={{
            display: "flex",
            justifyContent: "center",
            alignItems: "center",
          }}
        >
          <button onClick={decrease} style={style}>
```

```
        -
      </button>
      <h2>{state}</h2>
      <button onClick={increase} style={style}>
        +
      </button>
    </div>
    <button style={style} onClick={recordCounter}>
      record
    </button>
    <div>
      <h2 style={{ textAlign: "center" }}>Counter History</h2>
      <div style={{ display: "flex", justifyContent: "center" }}>
        <div style={{ display: "flex" }}>
          {record.map((item, index) => {
            return(
            <div
              key={index}
              style={{
                display: "flex",
                justifyContent: "center",
                alignItems: "center",
                flexDirection: "column",
                border: "1px solid #000",
                width: "100px",
                borderRadius: "10px",
                margin: "10px",
              }}
            >
              <h4>Record</h4>
              <p>{item}</p>
            </div>)
```

```
            })}
          </div>
        </div>
      </div>
    </div>
  </>
  );
};

export default App;
```