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How to Build Dynamic Forms in React

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In this tutorial, let's learn how to build dynamic forms in React. Using dynamic forms, we can add fields or remove them depending on our needs.

So, let's get started.

How to Create a Form in React

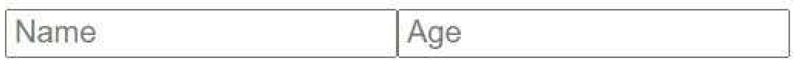
Let's create a simple form first. The syntax is straightforward:

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

function App() {
  return (
    <div className="App">
      <form>
        <div>
          <input
            name='name'
            placeholder='Name'
          />
        </div>
      </form>
    </div>
  );
}

export default App;
```

Here's what it'll look like:



We have two input fields, which are Name and Age. But these fields are static. So, let's made them dynamic using React States.

How to Make Forms Dynamic in React

Create one state called InputFields. It will have an object, with **name** and **age** properties.

```
const [inputFields, setInputFields] = useState([
```

Now, let's map our form fields from their **inputFields** state.

```
import { useState } from 'react';
import './App.css';

function App() {
  const [inputFields, setInputFields] = useState([
    { name: '', age: '' }
  ])
  return (
    <div className="App">
      <form>
        {inputFields.map((input, index) => {
          return (
            <div key={index}>
              <input
                name='name'
                placeholder='Name'
              />
              <input
                name='age'
                placeholder='Age'
              />
            </div>
          )
        })}
      </form>
    </div>
  );
}

export default App;
```

Now, we will see only one set of input fields, because we have only one object in the **inputFields** state. If we add more objects, we will see multiple input fields.

inputFields State

Now, let's add the values from the **inputFields** state to the input fields.

```
import { useState } from 'react';
import './App.css';

function App() {
  const [inputFields, setInputFields] = useState([
    { name: '', age: '' }
  ])
  return (
    <div className="App">
      <form>
        {inputFields.map((input, index) => {
          return (
            <div key={index}>
              <input
                name='name'
                placeholder='Name'
                value={input.name}
              />
              <input
                name='age'
                placeholder='Age'
                value={input.age}
              />
            </div>
          )
        })}
      </form>
    </div>
  );
}

export default App;
```

something in the input fields.

Create a function called **handleFormChange**.

```
const handleFormChange = () => {

}
```

Assign this function to the input fields as an onChange event.

```
<div key={index}>
              <input
                name='name'
                placeholder='Name'
                value={input.name}
                onChange={event => handleFormChange(index, event)}
              />
              <input
                name='age'
                placeholder='Age'
                value={input.age}
                onChange={event => handleFormChange(index, event)}
              />
            </div>
```

This onChange event takes two parameters, **index** and **event**. Index is the index of the array and event is the data we type in the input field. We are passing those to the **handleFormChange** function.

But the thing is, if we try to type something in the input fields, we won't be able to. Because we haven't set the states in the **formFields** state. So, let's do that.

```
const handleFormChange = (index, event) => {
   let data = [...inputFields];
}
```

Let's store our **inputFields** state into a variable called **data** using the spread operator (the three dots `...`).

Then, we will target the index of the data variable using the index parameter, and the name of the property, too.

```
const handleFormChange = (index, event) => {
    let data = [...inputFields];
    data[index][event.target.name] = event.target.value;
}
```

For example, suppose we are typing in the input field with **index 0**. So, we are specifying the index in data, and the property name, using **event.target.name.** And inside this data index, we are storing the values from input fields using **event.target.value.**

Now, we need to store this data back inside the **inputFields** array

```
    let data = [...inputFields];
    data[index][event.target.name] = event.target.value;
    setInputFields(data);
  }
```

Now, if we type something in the input fields, it will show up in the input fields.

How to Add More Form Fields

Let's create a button to add more form fields.

```
<button>Add More..</button>
```

And a function, too, that will be triggered when this button is clicked.

```
const addFields = () => {

}
```

Let's add the function to the button via an onClick event.

```
<button onClick={addFields}>Add More..</button>
```

thus creating a new input field.

```
const addFields = () => {
    let newfield = { name: '', age: '' }
}
```

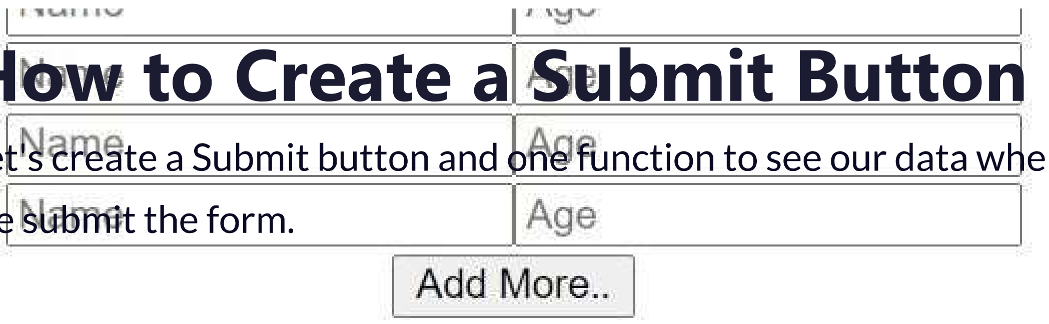
Then set this newField inside the **inputFields** state.

```
const addFields = () => {
    let newfield = { name: '', age: '' }

    setInputFields([...inputFields, newfield])
}
```

Here, we are also setting the existing **inputFields** using the spread operator, in conjunction with the newfield.

If we click the Add Field button now, it will create a new input field.



How to Create a Submit Button

Let's create a Submit button and one function to see our data when we submit the form.

```
<button>Submit</button>
```

We also need a function that will be triggered when we click this button. It will log the data in the console, from the input fields. It also has a method called **e.preventDefault()** that will prevent the page from getting refreshed.

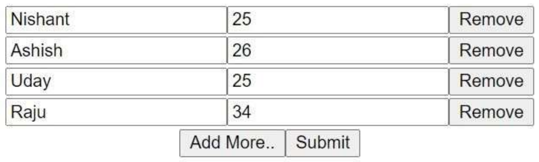
```
const submit = (e) => {
    e.preventDefault();
    console.log(inputFields)
}
```

Add this function to the Submit button:

```
<button onClick={submit}>Submit</button>
```

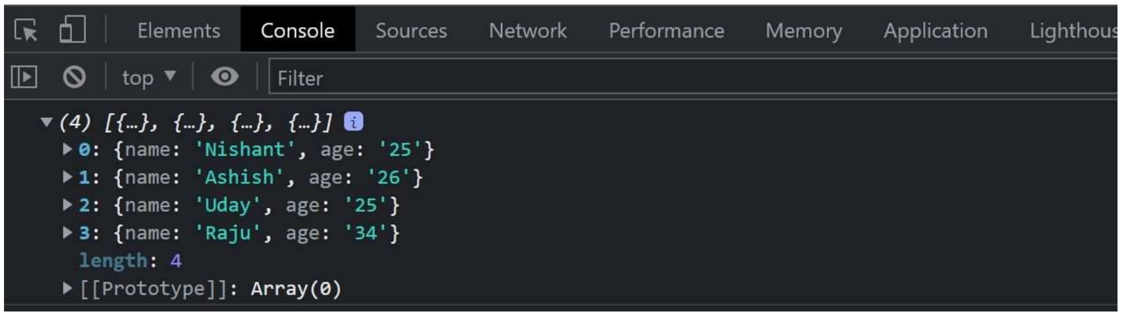
And also in the form tag:

If we submit, we will see our data in the console:



Nishant	25	Remove
Ashish	26	Remove
Uday	25	Remove
Raju	34	Remove

Add More.. Submit

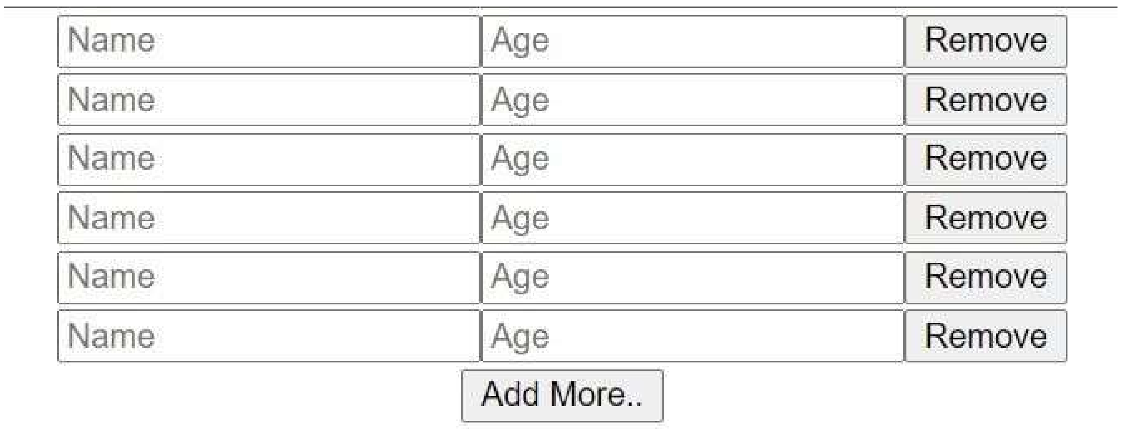


```
▼(4) [{…}, {…}, {…}, {…}]
  ▶0: {name: 'Nishant', age: '25'}
  ▶1: {name: 'Ashish', age: '26'}
  ▶2: {name: 'Uday', age: '25'}
  ▶3: {name: 'Raju', age: '34'}
   length: 4
  ▶[[Prototype]]: Array(0)
```

How to Remove the fields using a Remove Button

Now let's create a Button for removing these fields if we don't want them.

```
<form>
        {inputFields.map((input, index) => {
          return (
            <div key={index}>
              <input
                name='name'
                placeholder='Name'
                value={input.name}
          placeholder='Age'
          value={input.age}
          onChange={event => handleFormChange(index, event)}
        />
        <button>Remove</button>
      </div>
    )
  })}
</form>
```



We need a function as well.

```
const removeFields = () => {

}
```

So, assign this function to the Remove button.

```
<button onClick={() => removeFields(index)}>Remove</button>
```

We are passing the index as a parameter, which is the index of input fields.

Then, receive this index in the function.

```
const removeFields = (index) => {

}
```

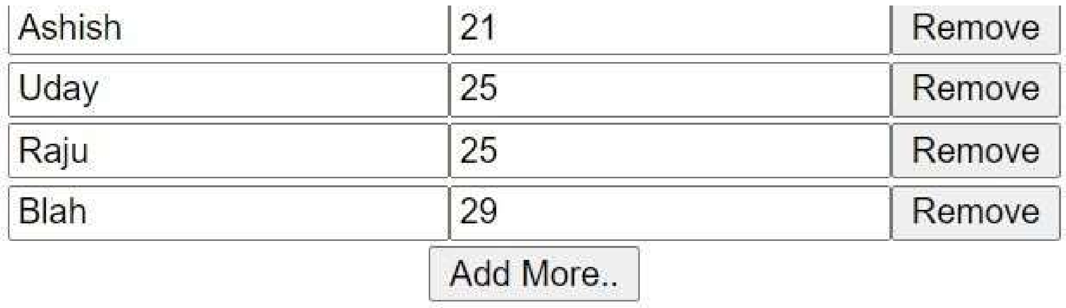
And just like before, we need to create a new variable and store the **inputFields** state in that new variable.

```
const removeFields = (index) => {
    let data = [...inputFields];
}
```

Then, we need to splice this data variable by the index. Then we need to store it in the **inputFields** state using setInputFields.

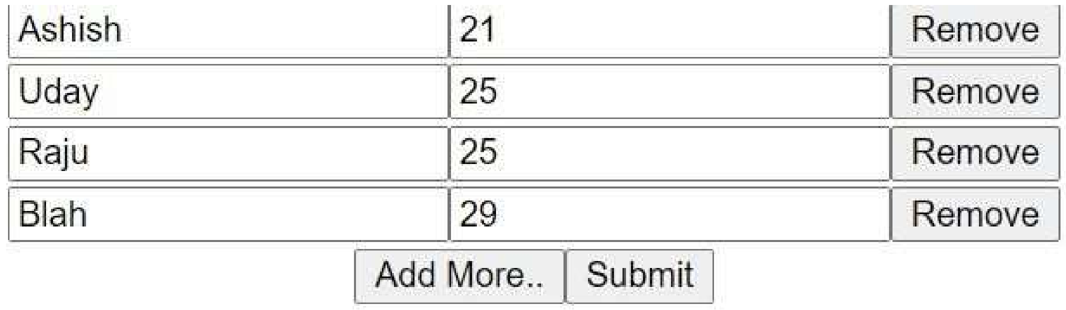
```
const removeFields = (index) => {
    let data = [...inputFields];
    data.splice(index, 1)
    setInputFields(data)
}
```

Now, if we click remove, it will remove that form field.



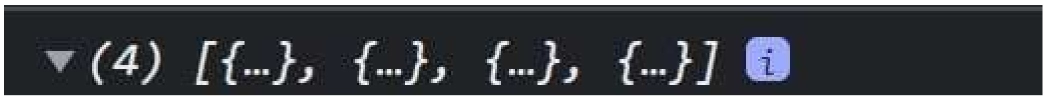
Ashish	21	Remove
Uday	25	Remove
Raju	25	Remove
Blah	29	Remove

So we have five input fields here, with five different names. Let's remove the input of Nishant.

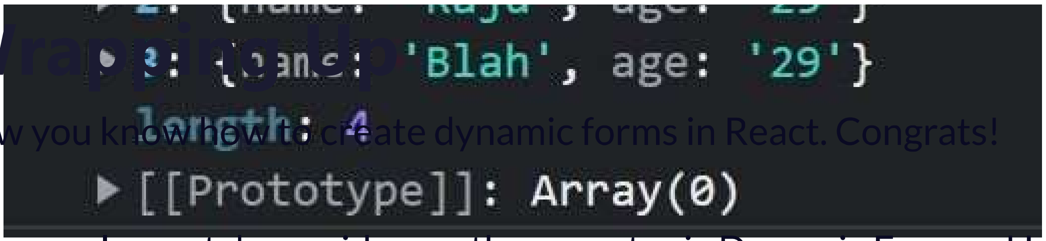


Ashish	21	Remove
Uday	25	Remove
Raju	25	Remove
Blah	29	Remove

You see it has been removed. And if we submit, we will see our updated data in the console.



```
▼ (4) [{…}, {…}, {…}, {…}]
```



```
▶ 3: {name: 'Blah', age: '29'}
  length: 4
 ▶ [[Prototype]]: Array(0)
```

Wrapping Up

Now you know how to create dynamic forms in React. Congrats!

You can also watch my video on the same topic [Dynamic Forms - How to Add Dynamic Forms in React]().

Try out the code here – [https://github.com/nishant-666/Dynamic-Forms]().

Happy learning :)

Nishant Kumar

I build projects to learn how code works. And while I am not coding, I enjoy writing poetry and stories, playing the piano, and cooking delicious meals.

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