

React - Lists

Topics : [React JS](#)

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In React, rendering lists of elements is a common task, and there are several ways to achieve it. Here are some common patterns for working with lists in React:

1. Using `map()` to Render a List:

The `map()` method is commonly used to iterate over an array and render a list of elements.

```
import React from 'react';

const ListComponent = ({ items }) => (
  <ul>
    {items.map((item, index) => (
      <li key={index}> {item} </li>
    ))}
  </ul>
);
```

```
export default ListComponent;
```

Ensure that each item in the list has a unique key attribute. React uses keys to efficiently update the virtual DOM.

2. Rendering Lists of Components:

You can also render a list of React components.

```
import React from 'react';

const ItemComponent = ({ value }) => <li>{value}</li>;

const ListComponent = ({ items }) => (
  <ul>
    {items.map((item, index) => (
      <ItemComponent key={index} value={item} />
    ))}
  </ul>
);

export default ListComponent;
```

3. Using map() with Object Properties:

If you're working with an array of objects, you can use the map() method to render a list based on object properties.

```
import React from 'react';

const ObjectListComponent = ({ items }) => (
  <ul>
    {items.map((item) => (
      <li key={item.id}>{item.name}</li>
    ))}
  </ul>
);

export default ObjectListComponent;
```

4. Conditional Rendering in Lists:

You can combine the use of map() with conditional rendering.

```
import React from 'react';

const ConditionalListComponent = ({ items }) => (
  <ul>
    {items.map((item) => (
      <li key={item.id}>
        {item.completed ? <span style={{ textDecoration: 'line-through' }}>{item.name} </span> :
        item.name}
      </li>
    ))}
  </ul>
);

export default ConditionalListComponent;
```

5. Keys and Stable IDs:

When rendering a list with React, each item should have a unique and stable identifier (key). Using the item index as the key is acceptable for simple lists, but for more dynamic lists with frequent changes, it's better to use a unique identifier provided by your data.

6. Lists with Forms:

When rendering a list of form elements, you may need to handle input changes and update the state accordingly. Ensure that you use unique keys for each form element.

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

const FormListComponent = ({ items }) => {
  const [formData, setFormData] = useState(items);

  const handleInputChange = (index, newValue) => {
```

```
const updatedData = [...formData];
updatedData[index] = newValue;
setFormData(updatedData);
};

return (
  <ul>
    {formData.map((item, index) => (
      <li key={index}>
        <input
          type="text"
          value={item}
          onChange={(e) => handleInputChange(index, e.target.value)}
        />
      </li>
    ))}
  </ul>
);
};

export default FormListComponent;
```

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