

- Explain what the simple List component does.
- What problems / warnings are there with code?
- Please fix, optimize, and/or modify the component as much as you think is necessary.

```
1.
2. import React, { useState, useEffect, memo } from 'react';
3. import PropTypes from 'prop-types';
4.
5. // Single List Item
6. const WrappedSingleListItem = ({
7.   index,
8.   isSelected,
9.   onClickHandler,
10.  text,
11. }) => {
12.  return (
13.    <li
14.      style={{ backgroundColor: isSelected ? 'green' : 'red' }}
15.      onClick={onClickHandler(index)}
16.    >
17.      {text}
18.    </li>
19.  );
20. };
21.
22. WrappedSingleListItem.propTypes = {
23.  index: PropTypes.number,
24.  isSelected: PropTypes.bool,
25.  onClickHandler: PropTypes.func.isRequired,
26.  text: PropTypes.string.isRequired,
27. };
28.
29. const SingleListItem = memo(WrappedSingleListItem);
30.
31. // List Component
32. const WrappedListComponent = ({
33.  items,
34. }) => {
35.  const [setSelectedIndex, selectedIndex] = useState();
36.
37.  useEffect(() => {
38.    setSelectedIndex(null);
```

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39.   }, [items]);
40.
41.   const handleClick = index => {
42.     setSelectedIndex(index);
43.   };
44.
45.   return (
46.     <ul style={{ textAlign: 'left' }}>
47.       {items.map((item, index) => (
48.         <SingleListItem
49.           onClickHandler={() => handleClick(index)}
50.           text={item.text}
51.           index={index}
52.           isSelected={selectedIndex}
53.         />
54.       ))}
55.     </ul>
56.   )
57. };
58.
59. WrappedListComponent.propTypes = {
60.   items: PropTypes.array(PropTypes.shapeOf({
61.     text: PropTypes.string.isRequired,
62.   })),
63. };
64.
65. WrappedListComponent.defaultProps = {
66.   items: null,
67. };
68.
69. const List = memo(WrappedListComponent);
70.
71. export default List;
72.
```