1. Explain what simple List components does?

Ans: The function takes an array of items and returns the ul element in which each item is wrapped in a single list item component.

The code then defines two functions: setSelectedIndex, which sets the selected index to null when it's called, and handleClick, which sets the selected index when it's called. If one item is selected, then it displays it with a different background color (Green). The user can click on an item and it will get selected and will get background color of Green.

2. What problems and warnings are there with the code? Ans:

```
1.UseState Syntax error :
```

Const[SelectedIndex,SetSelectedIndex]=UseState();

2.Onclick Handler Should be called as arrow function: Onclick()={()=>Onclickhandler(index)}

3.Items array is null and null value in array is not iterable or it returns error;

```
WrappedListComponent.defaultProps = {
    items: null,
    };
```

3.Please fix, optimize, and/or modify the component as much as you think is necessary.

```
import React, { useState, useEffect, memo } from "react";
import PropTypes from "prop-types";
```

```
const WrappedSingleListItem = ({ index, isSelected,
onClickHandler, text }) => {
return (
<li
style={{ backgroundColor: isSelected ? "green" : "red" }}
onClick={() => onClickHandler(index)}
>
{text}
);
};
WrappedSingleListItem.propTypes = {
index: PropTypes.number,
isSelected: PropTypes.bool,
onClickHandler: PropTypes.func.isRequired,
text: PropTypes.string.isRequired,
};
```

```
const SingleListItem = memo(WrappedSingleListItem);
const WrappedListComponent = ({ items }) => {
const [selectedIndex, setSelectedIndex] = useState();
console.log(selectedIndex, items);
useEffect(() => {
  setSelectedIndex(null);
}, [items]);
const handleClick = (index) => {
  setSelectedIndex(index);
}
}`
```