- Explain what the simple List component does.

Solution: Lists are used to display data (Api or predefined data) in an ordered format and mainly used to display in tabular or listed format on websites. In React, Lists can be created in a similar way as we create lists in JavaScript. Lists are continuous, vertical indexes of text or images.

```
import React from 'react'

export default function Basiclist() {
    const myList = ['Peter', 'Sachin', 'Kevin', 'Dhoni', 'Alisa'];
    const listItems = myList.map((myList)=>{
    return <li>{myList}</li>;
});
  return (
    <ul> {listItems} </ul>
  )
}
```

List components are used to create, read, update, and delete list items from lists.

we use the map() function to take an array of numbers and double their values. We assign the new array returned by map() to the variable.

We usually give unique key for each list for its identification. Keys allow React to keep track of elements. This way, if an item is updated or removed, only that item will be re-rendered instead of the entire list.

Lists are crucial features of an app. A list of tasks like a calendar app, a list of pictures like Instagram, a list of items to shop in a shopping cart, etc., are the numerous use-cases where lists are used to improve the performance. Imagine an app with a huge list of videos or pictures appearing as you scroll. This could hinder the app's performance. As performance is an essential aspect, using lists would make sure that they are designed for optimal performance.

- What problems / warnings are there with code?

Solution:

1. const [selectedIndex, setSelectedIndex] = useState(); , order was reverse setSelected is function it should be in second place in bracket.
2. In onClick in WrappedSingleListItem onClickHandler was worngly assign.
3. Passing of handleclick from WrappedListComponent to SingleListItem was not in bool type. As it is clearly mentioned in wrappedSingleListItem.propTypes is that isSelected proptypes is bool.
4. Key was missing for each li of the List and we know key play important role in rendering each or whole components.
5. Const items were empty or null as item.text was not present in it.
6. In WrappedListComponent.propTypes the items PropTypes.Shapeof is not present in PropTypes therefore instead of array we had use arrayOf and instead of shapeof we had use shape porptypes. can use PropTypes.shape() as an argument to PropTypes.arrayOf().
7. useEffect syntax was wrong setSelectedIndex(items).