

Quiz

1.

```
1: var Test = function(props) {
2:   var function1 = function() {
3:     console.log("I am function 1");
4:   };
5:
6:   this.function2 = function() {
7:     console.log("I am function 2");
8:   };
9: };
```

(a) Which is a private method, which is a public method?

(b) What are some of the drawbacks of using private method?

2.

```
1: var aArray = [1, 2, 3];
2: var bArray = aArray;
3: bArray[1] = 10;
```

(a) What does aArray look like after line 3?

(b) How can we clear both aArray and bArray by only access aArray?

(c) How can we copy the values of aArray to another array cArray and both variables reference to different objects?

3. Please write a function called mul who makes:

mul(2)(3)(4) => 24

mul(3)(4)(4) => 48

4.

```
1: var kill1 = function(x) {
2:   delete x;
3:   return x;
4: };
5:
6: var temp = 1;
7: var kill2 = function() {
8:   delete temp;
9:   return temp;
10: };
```

```
11:
12: var temp2 = { name: 'GG' };
13: var kill13 = function() {
14:   delete temp2.name;
15:   return temp2;
16: };
17:
18: var Employee = {
19:   name: 'xyz'
20: };
21: var temp3 = Object.create(Employee);
22: delete temp3.name;
23:
24: var temp4 = [1, 2, 3];
25: delete temp4[1];
```

- (a) kill1(10) = ?
- (b) kill2() = ?
- (c) kill3() = ?
- (d) temp3 = ?
- (e) temp4 = ? after line 25?

*5. Please specify the lifecycle of React Component.

6.

```
1:   class Temp extends Component {
2:     constructor(props) {
3:       this.state = { nameInState: null };
4:     }
5:
6:     render() {
7:       const { name, age } = this.props;
8:       return (
9:         <div>
10:          <h1>{name}</h1>
11:          <h3>{age}</h3>
12:        </div>
13:      );
14:    }
15:  }
```

- (a) Is there any problem in the code above?
- (b) How can we prevent Temp component from re-rendering if this.props.name isn't changed?
- (c) What React Component lifecycle function should we use to fetch data from BE?

*7. Please specify the difference between PureComponent and Component of React.

*8.

(a) What does the Redux framework do?

(b) Please specify to use the Redux framework, what should you implement?

9. Please implement a reducer which:

a. Has the initial state: { city: 'Taipei' }

b. If get action and action.name === 'UPDATE', update city in action.payload to state.

c. If get other action, return current state.

*10. What is immutability in JavaScript? Why do we need this? Can you provide one example?