**DSA**

Q1: https://leetcode.com/problems/find-the-city-with-the-smallest-number-of-neighbors-at-a-threshold-distance/

Q2: https://leetcode.com/problems/merge-sorted-array/description/

**React Coding**

**Q1: Create a stopwatch application through which users can start, pause and reset the timer. Use React state, event handlers and the setTimeout or setInterval functions to manage the timer’s state and actions.**

**Q2: Fix the code below:**

import React from 'react';

function Welcome(props) {

if (props.isLoggedIn) {

return <h1>Welcome back!</h1>;

else {

return <h1>Please log in.</h1>;

}

}

export default Welcome;

Answer: The code has a syntax error. The else statement is missing a closing brace (}).

**Q3: Write a functional component called Navbar that renders a navigation bar with links. It should receive an array of links as a prop, and each link should be displayed as an anchor tag within a list item.**

Answer:

import React from 'react';

function Navbar({ links }) {

return (

<nav>

<ul>

{links.map((link) => (

<li key={link.id}>

<a href={link.url}>{link.text}</a>

</li>

))}

</ul>

</nav>

);

}

export default Navbar;

**Q4: Identify and fix any performance issues in the following code that renders a large list of items:**

import React from 'react';

const MyComponent = ({ items }) => (

<div>

{items.map((item) => (

<Item key={item.id} item={item} />

))}

</div>

);

const Item = ({ item }) => (

<div>

<p>{item.name}</p>

<p>{item.description}</p>

{/\* More complex rendering logic \*/}

</div>

);

export default MyComponent;

**Answer**: The issue with the code is that it doesn’t provide a unique key for each item in the map function. To fix this, we can use the item.id as the key for the <Item> component.

**React Theory**

Q5: What is the significance of keys in React when rendering a list of components?

Q6: What is JSX?

Q7: What is a key in React?

Q8: Explain the use of render method in React?

Q9: What is conditional rendering in React?

Q10: What is the use of ref in React?

Q11: What is the different between useref and forwardref in React?

Q12: Explain CORS in React?