1. What are the different types of testing?

Ans: Testing is very vast field in software domain from the developers point of view there there 3 types of testing

1. Unit Testing: Testing the UI by units by breaking down into components
2. Integration Testing: Testing the end to end functionality/feature
3. Manual Testing: Manually testing the whole application.
4. What is Enzyme?

Ans: Enzyme is the react testing library which provides useful methods to test the components in various assertion libraries(Test runners) such as mocha ,chat and jest etc.

Ex:

import React from 'react';

import { expect } from 'chai';

import { shallow } from 'enzyme';

import sinon from 'sinon';

import MyComponent from './MyComponent';

import Foo from './Foo';

describe('<MyComponent />', () => {

it('renders three <Foo /> components', () => {

const wrapper = shallow(<MyComponent />);

expect(wrapper.find(Foo)).to.have.lengthOf(3);

});

});

We can render the component in shallow method which renders the element in browser like environment

1. Enzyme vs React-Testing library?

Ans: Enzyme: Enzyme was released in 2015 to test React Class Based Components and it provides various methods to mutate the state at the component level which needed when testing the complex components and it is more kind functionality testing by changing the state or calling different lifecycle methods /hooks later but it will not give easy ways to get the particular element from the render environment so it is better when we want to test the components by checking all states manually it is use jqueryAPI to query the DOM

React-Testing-Library: It was released in 2018 it got popularity from early stage because of its method of testing the component by behavior means in react testing we can test the certain features by triggering the events and expecting the dom changes not the state changes this makes sense so it provides various methods to query dom elements so that we can test the functionality through dom not by states so it is better in this scenario.

Conclusion: Both are good at their own place as developer we need to choose based on our use case when developer wants to test the component by state level he wants to trigger certain lifecycle methods/class based components then he may go for Enzyme on other hand developer wants to check the functionality from the dom level and he needs more intuitive methods to query the dom then he may go for react-testing-library.

1. What is Jest and why do we use it?

Ans: Jest is a delightful JavaScript Testing Framework with a focus on simplicity. It works with any framework like react ,angular ,Node etc. It executes each test file isolated environment which makes it performant and it provides handy API’s like test and expect to write the test cases and test cases will run parallel and it generates the coverage reports which includes all the details to better cover all the scenarios and code.Jest uses a custom resolver for imports in your tests, making it simple to mock any object outside of your test’s scope. You can use mocked imports with the rich Mock Functions API to spy on function calls with readable test syntax.