

## Chapter 01 - Inception

### Theory

#### 1) What is Emmet?

Emmet is a tool for front-end web developers that allows them to write HTML and CSS code faster and more efficiently. It uses a shorthand syntax that allows you to write code using simple abbreviations, which are then expanded into full HTML and CSS code.

#### 2) What is the difference between a library and a framework?

A library is a set of reusable codes that can be imported and used in a project. They are designed to perform specific tasks. A framework is a more comprehensive tool. They are designed to provide a complete solution to a specific type of application. Frameworks include a set of libraries along with other components such as a runtime environment, a database etc.

#### 3) What is a CDN? Why do we use it?

A CDN (Content Delivery Network) is a network of servers used to deliver content fast and efficiently across the world (when a user requests any resource, such as an image or a video or a JavaScript file). They are typically used to increase the performance and reliability of websites.

#### 4) Why is React known as React?

React is called React because it was built to react to changes in a web page's state. The basic idea behind React is to create reusable UI components that can be combined to create complex user interfaces. These components are designed to be highly modular and independent, which makes it easy to build and maintain large-scale applications.

React uses a unique approach to rendering web pages called the "virtual DOM". This approach allows React to quickly update and render only the parts of a web page that have changed without needing to redraw the entire page. This makes React highly performant and allows it to create fast and responsive user interfaces.

#### 5) What is cross-origin in the script tag?

The cross-origin attribute in the script tag is used to specify security settings for loading external scripts and can be set to either anonymous or use-credentials

#### 6) What is the difference between React and ReactDOM?

React provides the core functionality for building React components, while react-dom provides the specific functionality for rendering those components in the browser using the DOM

7) What is the difference between `react.development.js` and `react.production.js` files via CDN?

`React.development.js` is optimised for development and testing (it is the non-minified version which contains extra warnings and debugging information to help developers), while `react.production.js` is optimised for production (it is smaller and has been stripped of any unnecessary code, including the warnings and debugging information) for it to load and execute faster in a browser.

8) What is the difference between `async` and `defer`?

`Async` allows the browser to continue rendering the page while downloading and executing the script as soon as it's ready, which may lead to out-of-order execution. `Defer` also downloads the script in the background but defers the execution until the HTML parsing is finished, ensuring the correct order of execution. It is important to note that scripts with dependencies on other scripts or HTML elements should use `defer` to ensure proper execution order.