

Chapter 1: Inception – Assignment 1

Theory

Q.1 What is Emmet?

- Emmet is a set of plug-ins for text editors that allows for high-speed coding and editing in HTML, XML, XSLT, and other structured code formats via content assist.

Q.2 Difference between a Library and Framework?

Library	Framework
<ol style="list-style-type: none">1. A library offers specific functionalities without imposing a particular architecture.2. Libraries, in the context of software development, are a collection of functions readily available to you	<ol style="list-style-type: none">1. A framework controls the application flow and structure.2. A framework's code does not contain "completed" functions

Q.3 What is CDN? Why do we use it?

- A **content delivery network (CDN)** is a system of servers that speeds up the delivery of web content to users.

We use a CDNs because:

Faster performance: CDNs can reduce load times and improve the overall performance of a website.

Better reliability: CDNs can help prevent issues like server downtime and network congestion.

Cost savings: CDNs can help reduce the cost of serving content to users.

Cyber attack protection: CDNs can help protect websites from malicious attacks like DDoS.

Improved SEO: CDNs can help improve a website's performance, which can positively impact its search engine optimization (SEO) score.

Q.4 Why is React known as React?

- React is called React because it reacts to changes in data, updating only the parts of a page that need to change.

Q.5 What is crossorigin in script tag?

- Cross-origin refers to a mechanism that allows a web page to access resources from a different domain than the one that served the page.

Q.6 What is difference between React and ReactDOM?

React	ReactDOM
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<ol style="list-style-type: none"> 1. A JavaScript library that helps build user interfaces. 2. It introduces the concept of components, which are reusable UI elements that define how a user interface should look based on inputs. 	<ol style="list-style-type: none"> 1. A package that acts as a bridge between React and the browser's DOM (Document Object Model). 2. It provides methods to manage React components and render them into the DOM. ReactDOM is used to mount an application to the index.html file.
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Q.7 What is difference between react.development.js and react.production.js files via CDN?

react.development.js	react.production.js
<p>Purpose: This file is designed for development use.</p> <p>Features:</p> <ul style="list-style-type: none"> • Includes detailed error messages, warnings, and debugging tools to help developers identify and fix issues during development. • Contains runtime checks, such as prop type validation. • Unminified and human-readable, making it easier to understand and debug. • Larger in size because it includes extra information for debugging. <p>Use Case: Should be used during the development phase to help identify and address issues quickly.</p>	<p>Purpose: This file is optimized for production use.</p> <p>Features:</p> <ul style="list-style-type: none"> • Stripped of all warnings, error messages, and debugging tools to reduce file size. • Minified and obfuscated for faster load times and smaller bandwidth usage. • Improves application performance as unnecessary checks are removed. <p>Use Case: Should be used in production environments to ensure better performance and reduced payload size.</p>

Q.8 What is async and defer?

- async attribute - The async attribute is a boolean attribute. When you include the async attribute in a <script> tag, it indicates that the script should be executed asynchronously. This means that the script will be downloaded in the background while the HTML document continues to be parsed.

The script will be executed as soon as it's downloaded, regardless of whether the HTML parsing is complete.

This is beneficial for non-blocking scripts, especially in scenarios where the script doesn't depend on the DOM structure or other scripts.

Syntax

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<script src="example.js" async></script>
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