WEB DEVLOPMENT

S.No.	Sub Topic	Topic	Week no
1	Mentor Introduction	Intro to Web Dev	Week 1
	Internet and How it Work		
	Web Browser and Browser Engine		
	What is Static and Dynamic Site		
	What is Client and Server ?		
	Guide towards Frontend and Backend Developer		
	Test on Into to Web Dev		
2	Writting First Hello World (Heading and Paragraph)	Getting Started With HTML and Emmet	Week 2
	Comments, Tags v/s Elements and Attribute		
	HTML Entities		
	Introduction to Emmet		
	Emmet and Speedy Html		
	Parent Child and Grouping		
	Test on Getting Started With HTML and Emmet		
3	Understanding the Formatting Tag	Core HTML	Week 3
	Inline Element vs Block Level Element		
	List and Anchor Tag		
	Tables and it Propertis		
	Understanding the Meta tag and it's importance		
	Time Table Project with HTML		
	Test on Core HTML		
4	Walkthrought with iframe	Core HTML	week 4
	Bring in Media (Images , Audio and Video)		
	Forms and it's Importance		
	All the types of input in forms		
	Test on Media and Forms		
	Difference between HTMl and HTML 5	Media and Forms	week 5
	Semantics and it's importance		
	Complete Walkthrough of Semantics tags		
	Mini Project using Semantic Tag		
	Working of Margin and Padding		

5	Text and Font in CSS	Modern HTML	week 6
	Display, Height and Width in CSS		
	Different Screen Sizes (Media Query)		
	Media Query For Different Screen Sizes		
	Explanning CSS Layout		
	Test on More on CSS		
6	Introduction to CSS	Starting with CSS	week 7
	Different Way to Link CSS to HTML		
	Basic Selector in CSS		
	Advance Selector in CSS (Pseudo)		
	Intro to Google Fonts		
	Color and Background		
	Test on Starting with CSS		
7	Working of Margin and Padding	Starting with CSS	Week 8
	Text and Font in CSS		
	Display, Height and Width in CSS		
	Different Screen Sizes (Media Query)		
	Media Query For Different Screen Sizes		
	Explanning CSS Layout		
	Test on More on CSS		
8	CSS Positions (Part 1)	Positons in CSS	Week 9
	CSS Positions (Part 2)		
	Overflow and Z-Index		
	Different CSS Unit		
	Mini Project using CSS		
	Test on Positions in CSS		
9	Flex Box and Why it came into picture ?	Flexbox in CSS	Week 10
	Flex Box Properties (Parent)		
	Flex Box Properties (Child)		
	Mini Project using CSS Flex		
	Text on Flexbox		
	Grid and How it is Diferrent from Flex		
	Grid Part 1 (Parents)	Grid in CSS	Week 11
	Grid Part 2 (Parents)		
	Mini Project using Grid		
10	Test on Grid		

	Intro to Version Control System	Git and Github	Week 12
	Explanning Git and It's Importance		
	General Command on Git		
	Importane of .gitignore		
	Walkthorugh with Github and Pushing the Code to github		
11	Test on Git and Github		
	TCP/IP	Networking	Week 13
	OSI Model		
	HTTP 1, HTTP 2 and HTML 3		
	Linux Command		
	Hashing and Encryption		
	Test on Networking		
12	Intro to JavaScript	JavaScript Fundamentals - 1	Week 14
	Values and Datatypes		
	Varibale and typeof		
	Operators		
	Conditon (If, If-else and If-else-if)		
13	Switch Case		
	Loop (While and Do While Loop)		
	For Loop, Break and Continue		
	Test on JavaScript Fundamentals - 1		
	What is an Array, Index in array and accessing from array	JavaScript Fundamentals - 2	Week 15
	Array methods		
	Why and What of Functions and Function Declaration		
14	Function with a parameter (Single, and Multiple)		
	Function with unlimited number of parameters		
	Arrow Function		
	Object and Manipulating Object		
	Object methods		
	Test on JavaScript Fundamentals - 2		
	Visualize of DOM and It's Working	JavaScript DOM	Week 16
15	Methods of DOM - Part 1		
	Methods of DOM - Part 2		
	Methods of DOM - Part 3		
	Project on DOM		
	Test on DOM		

	Exam for Vanilla JavaScript		
16	What is Higher Order Function (HOF)	HOF and Functional Programming	Week 17
	Callback, Returning function		
	Setting time (Setinterval, SetTimeout)		
	For each, map, filter		
	reduce		
	every, find, sort		
	What is regex and Different Character in Regex and importance		
	Writting regex with example		
17	Test on HOF and Functional Programming	Destructuring and Class	Week 18
	Destructuring Array and Object		
	Spread or Rest Operator		
	Try and Catch and It's working		
	Defining a classes, Class Instantiation		
	Class Constructor, Default values with constructor		
	Class methods and Properties with initial value		
18	getter and setter		
	Explanning Prototypes		
	How prototypes Work		
	How we manipulate this using Prototypes		
	Explanning What is Closure ?		
	First Program in Closure and Understanding Clouser		
	Test on Destructuring and Class		
19	Promise Constructor	Promises	Week 19
	Async and Await		
	Fetch API		
	Test on Promises		
	Exam for Advance JavaScript		
	Monolithic Architecture	Patterns	Week 20
	Microservices Architecture		
20	MVC Design Pattern		
	Test on Patterns		
	NodeJs Architecture	Fundamentals of Nodejs	Week 21
	NPM init and Package.json		
	Path module		
	FS Module		

		Fundamentals of Nodejs	Week 21
	OS Module		
	Events Module		
	Http Module		
	Test on Fundamentals of NodeJS		
21	How to Create Server in Nodejs	Walk Through with Express	Week 22
	How to Handle Different URLs		
	What is Express JS and Why we use ExpressJs		
	Different type of NodeJS Frameworks		
	Basics of Routes		
	Writting First Hello World using Express		
	PORT		
22	Test on Walk Through With Express		
	Protected Routes	Fundamentals of Express	Week 23
	Middleware		
	What is ORM (SQL) and ODM (NoSQL)		
	Connecting to RDBMS using ORM (Link)		
	Connecting to MongoDB using ODM		
	Rest API (Why, What and How)	CRUD with Express	Week 24
23	HTTPS Methods		
	Creating Profile (POST)		
	Fetching Profile(s) (GET)		
	Update Profile (PUT)		
	Deleting Profile (DELETE)	Auth with Express	
	Create a simple login API for SignUp and SignIn		
	Authentication and Authorization		
24	Working with environment varibables using .env		
	What and Why of CORS ?		
	Exam for Understanding Backend		
	Background of React	Walkthrough With React	Week 25
	Starter Project with CDN		
	Create react app		
	Why JSX?		
25	Embedding JS expressions in JSX		
	Conditional Rendering jsx component		
	createRoot() & render() methods of react18		
	Props and its uses		

	State vs props			
	Test on Walkthrough with React			
26	useState()	Router and Hooks	Week 26	
	useEffect()			
	How to use .map() to render array & Optimizing lists with key arguments			
	Methods of Conditional rendering			
	React Router DOM (V6)			
27	useParams and useRouteError			
	useContext()			
	useMemo()			
	useCallback()			
	useReducer()			
	Test on Router and Hooks			
	Form Handling and Validation with Formik & Yup	Form Handling	Week 27	
28	The Problem with Redux			
	Redux Toolkit - The New Way of Writing Redux			
	Test on Form Handling			
	Tailwind and Its Concept	React With Tailwind	Week 28	
	React with Tailwind Integration			
	Responsive project with Tailwind			
	Assignment - 1 (React + Tailwind)			
	Exam for Understanding Frontend			
	Frontend Project	Capstone Project - Frontend		

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