

	Session	Content
JS - 1	1	Orientation and
	2	Code: Hello Accio and Variables & Data Types
	3	Arithmetic Operator: - Arithmetic Operations -
	4	Conditions - 1
	5	Conditions - 2
	6	Loop day 1
	7	Loop day 2 , Scope basics (Let in terms of scope)
	8	Loop day 3
	9	Functions in JavaScript
	10	Scope in details
	11	Arrays Part 1
	12	Arrays Part 2
	13	Nested Arrays - 1
	14	Nested Arrays - 2
	15	Introduction to Objects - 1 (Cloning)
	16	Extra Class
JS - 2	1	String 1
	2	String 2
	3	String 3 , Regex
	4	Time & Space Complexity Basics
	5	Searching, Maps and Set
	6	Recursion day -1
	7	Recursion day -2
	8	Recursion day -3
	9	Sorting - 1
	10	Sorting - 2
	11	Sorting - 3 (Merge Sort and Quick Sort)

		12 JavaScript Functions Deep Dive
		13 Hof Problem Practice and Error Handling(try, catch, finally)
		14 Extra Class
F1	1	HTML Foundations
	2	HTML in Practice
	3	Github Introduction
	3	CSS Fundamentals and Box Model"
	4	CSS Flexbox
	5	CSS Grid
	6	Project - 1
	7	Amazing Designs - Practice - 1
	8	Amazing Designs - Practice - 2
	9	Amazing Designs - Practice - 3
	10	Amazing Designs - Practice - 4
	11	Amazing Designs - Practice - 5
	12	Amazing Designs - Practice - 6
	13	Landing Page - 1
	14	Landing Page - 2
F2	1	<p>DOM Basics</p> <ul style="list-style-type: none"> - Introduction to the DOM, basic selectors (e.g., getElementById, querySelector) - Attributes: innerText, innerHTML, textContent - Basic event handling (click events) (inline use and addEventListener)
	2	<p>Extended Traversal :</p> <p>Extended DOM Traversal: parentElement, firstElementChild, lastElementChild, nextElementSibling, previousElementSibling</p>

		DOM Manipulation & Efficiency : <ul style="list-style-type: none"> - Styling via style attributes and classList methods - Efficient DOM Manipulation: using DocumentFragment and minimizing reflows
	3	Dynamic Elements: <ul style="list-style-type: none"> - Creating and removing elements; setAttributes and getAttributes
	4	Data Persistence & Multi-page Apps: <ul style="list-style-type: none"> - Working with localStorage and JSON 5 - In Form Talk about submit, input and change event
	6	Mini Project - 1 : <ul style="list-style-type: none"> - use Closures in app
	7	Mini Project - 2: <ul style="list-style-type: none"> - Content and individual cells extra css Preserve in localstorage, and restore it once page is refreshed
	8	Mini Project - 3
	9	Classes and OOPS <ul style="list-style-type: none"> - also this keywords in different context like methods, arrow functions, object etc
	10	Classes and OOPS Project
	11	Misslaneous
F3	1	Async Introduction: <ul style="list-style-type: none"> - Sync vs Async - setTimeout and setInterval - callbackHell - Intro to Promises 1 - Example of Cleaning by finally
	2	Promises: <ul style="list-style-type: none"> - Promises Chaining - Promises methods/apis - apis and Fetch Example
	3	Make a Proper authnetication System : (Apis and Local Storage)
	4	Apis Questions Practice and async await

		<p>Event Loop:</p> <ul style="list-style-type: none"> - JS Engine Executes the Code using Call Stack - Main Job of the Call Stack - How does JavaScript perform async tasks - Web APIs in JS - setTimeout - Event Loop & CallBack Queue - How Event Listeners Work in JS - need for Event Loop - fetch() function works - MicroTask Queue in JS - Starvation of Functions in Callback Queue
	5	<p>Advance DOM:</p> <ul style="list-style-type: none"> - Session Storage, and Cookies. <p>6 - Event Delegation and Propagation, event Persisit</p>
	7	Modules, NPM, NPX and Axios
	9	<p>Youtube Clone using Modern NPM Tools :</p> <ul style="list-style-type: none"> - use Axios for api calls - use Tailwind CSS - Bundling by Vite/Parcel
	10	Pollyfills throttling, debouncing
	11	Misslaneous Class - 1
	12	Misslaneous Class - 2
F4	1	Basics of React - Setup, JSX, Components, Props and Keys
	2	<p>State Management (useState)</p> <ul style="list-style-type: none"> - Basics of rendering, - use state with number, objects and array
	3	<p>Use State</p> <ul style="list-style-type: none"> - functions+ lifting state up - Lazy Initialization <p>3 - useState & Asynchronous Updates</p>
	4	useState and One page Ecommerce:

	5	Use Effect and its Cleanup function
	6	Virtual DOM & Reconciliation - Understanding DOM vs Virtual DOM - How Virtual DOM Works – Diffing Algorithm, Reconciliation, Fiber - Understand Keys More better and React Memo While doing the Project
	7	Routing in React: - Introduction to react-router-dom – Basic routing (Home, About, Contact pages). - Dynamic Routes & URL Parameters
	8	- use Ref
	9	Context API, Prop Drilling,
	10	use Ref
	11	Instagram Project Part 1: Authentication & Basic Dashboard
	12	Instagram Project Part 2: Post Management & Engagement
	13	Redux Basic Introduction and React Redux
	14	Redux Toolkit Part - 1
	15	Redux Toolkit Part - 2 (CreateAsyncThunk)
	16	Trello Clone - 1:
	17	Authentication, Dashboard, Board Creation, Viewing Boards
	18	Trello Clone - 2:
	19	Task Lists, Fetching Tasks, Drag & Drop
	20	21 Miscellaneous Action - 1: 2 miscellaneous class are provided as we need to discuss Assignment too whenever Required, so fit it as it suits you.
	22	23 Miscellaneous Action - 2
B	1	SQL Database Fundamentals & Raw Queries
	2	MongoDB & NoSQL Raw Queries
	3	Mongo Queries

		<p>API Architecture & Error Handling:</p> <ul style="list-style-type: none"> - CRUD Operation (understanding Headers params, Query and Body) - Basic TO-DO - API architecture patterns - Middleware concept in Express - Error handling strategies - API response standardization - API Documentation => Use AI for creating DOCS.
	4	
	5	<p>Authentication Basics:</p> <ul style="list-style-type: none"> - Token and JWT Auth - Session vs Token based - Password hashing with bcrypt
	6	<p>Advanced Authentication:</p> <ul style="list-style-type: none"> - passport.js - Social authentication principles (Google and Github) - OAuth 2.0 overview - Multi-factor authentication concepts - Auth middleware for route protection
	7	<p>User Management & Authorization:</p> <ul style="list-style-type: none"> - Authorization vs. authentication - Role-based access control - Permission models - User profile management
	8	<p>Board Management:</p> <ul style="list-style-type: none"> - Resource ownership models - Collection pagination - Query filtering and sorting - Soft delete patterns
	9	<p>Board Membership & Collaboration:</p> <ul style="list-style-type: none"> - Collaboration models in applications - Many-to-many relationships - Invitation systems - Access control patterns

		Column Management: <ul style="list-style-type: none"> - List/column data structures - Ordering and positioning strategies - Drag-and-drop backend considerations - Transaction handling
	10	Card Management Basics: <ul style="list-style-type: none"> - Card entity design - Data validation strategies - Optimistic updates - Cross-entity relationship
	11	Advanced Card Features: <ul style="list-style-type: none"> - Task management features - Due date handling - Assignment patterns - Activity logging
	12	Comments & Subtasks: <ul style="list-style-type: none"> - Nested document patterns - Comment systems design - Mention functionality - Task breakdown strategies
	13	File Uploads & Attachments: File handling in Node.js Storage strategies (local vs. cloud) Image processing Security considerations
	14	Node.js Core Modules & Advanced Concepts <ul style="list-style-type: none"> - Node.js module system - Core modules deep dive(Modules that are pending) - Event emitters and listeners - Streams and buffers - Child Process
	15	Advanced Node.js & Project Completion: <ul style="list-style-type: none"> - Asynchronous patterns - Performance optimization - Monitoring and logging
	16	Misslaneous Action - 1: 2 misslaneous class are provided.
	17	
	18	Misslaneous Action - 2