**Introduction to Java script**

Introduction about what is java script? And how it is used in real word scenarios.

**Context (lexical) Environment**

What is the context environment and how it is used in identifying scope of variables and functions? What are the different properties that are associated with the lexical environment?

**Requesting/submitting data using HTTP protocols**

How HTTP protocols are used to provide Restful services. What are the different methods to get or post data to the server?

**Java script Data types and variables**

Gives brief introduction to different data types used and variable declared in data types.

**Flow of data and variables**

Learn how do-while, for, let, var, const, if-else, switch and more JavaScript statements and keywords work.

**Storing multiple data values and JSON Objects**

Learn how to store multiple data value in a variable and as well as storing JSON object values using Arrays. JavaScript typed arrays provide a mechanism for accessing raw binary data.

**Form validations and operators**

Learn more about the behavior of JavaScript's operators, instance of, type of, new, this, the operator precedence and more. How regular expressions are created and used in form validations.

**Functions**

Learn how to work with JavaScript's functions to develop your applications.

**Immediately invocable functions**

Why Immediately invocable functions (IIF’s). How do immediately invocable functions helps in creating new frameworks and why they play key role in building frameworks.

**Call back functions**

Learn what are call back functions and how call back functions are used in notifying user with what is the request response from API's.

**Inheritance and prototype chain**

Inheritance is not possible in java script but how we use inheritance functionality. Explanation of the widely misunderstood and under-estimated prototype-based inheritance.

**MAP, BIND and CALL**

Map and Bind allows us to use properties and methods of an object with another object. Learn how these properties are helped in implementing inheritance or used along with the prototype to code reusability.

**Scope chain**

What is scope chain? what is the scope of variables and functions.

**Enabling** [**S**](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Strict_mode)**trict mode**

Strict mode defines that you cannot use any variable before initializing it. Learn how strict mode is defined and what are the benefits with the strict mode.

**Standard objects**

Get to know standard built-in objects this, Array, Boolean, Date, error, Function, JSON, Math, Number, Object, String, Map, set and others.

**BOM**

Lean how BOM used to identify different browsers and their details, from where a user is accessing the web application, identifying different screens, storing or accessing browser history and how cache is used as local storage.

**DOM**

Get complete idea about DOM structure and what is DOM tree. Learn how to access child and parent elements in a DOM tree and modifying element values dynamically based on the user functionality.

**DOM Events**

Learn how DOM events are helps in building creating dynamic web pages.

REAL WORLD PROBLEMS & SOLUTIONS

**Frameworks**

Frameworks are like packages in Java, used to reuse the functionality. Learn how frameworks are build and how they are imported into the working project for code re-usability.

**XML/JSON**

Learn what is XML and JSON? Why they are used? And what is the difference between XML and JSON. How to use XML and JSON while sending or getting data from API (server).

**RESTFULL services**

What are RESTFULL services and how they are help in making API calls.

**Developer tools**

Lean what are developer tools and how they are very use full in modifying CSS or identifying errors in function calls or success/response errors from API's.

**User response and chat Applications (Web sockets)**

Learn what are web sockets and how they are used in notifying the response from the server to the user when doing API calls. Also, learn how web sockets are used in building chat applications.