# C# and OOP Syllabus

Coding standard guidelines (GWW)

What is Class?

Abstract class basic and usage

Interface implementation and usage

Access Modifiers

Constructor

OOPS Concepts

Types

Expression statement

Nullable types

Generics

Linq Operations

Extension Methods

String manipulation

Entity Framework basics

Visual studio basic usage

Project types

.NET Core vs .NET Framework

Buffer session if needed

# HTML, CSS and Javascript

## HTML

1. Intro to HTML Syntax

- The HTML, head, title, & body tags

- Headings, paragraphs, & lists

- The strong & em tags

- The doctype

- The lang attribute

- The meta tag & the unicode character set

2. Links: Absolute & Relative URLs

- Anchor tags & hrefs

- Linking to other websites

- Linking to pages within a website

- Opening a link in a new browser window/tab

3. HTML-Basic Formatting Tags

- HTML Basic Tags

- HTML Formatting Tags

4. HTML-Grouping Using Div Span

- Div and Span Tags for Grouping

5. HTML-Lists

- Unordered Lists

- Ordered Lists

6. HTML-Form

## CSS

- Benefits of CSS

- CSS Syntax

- External Style Sheet using < link >

- Multiple Style Sheets

- Creating an External CSS

- Adding Comments and Notes to a CSS

- ID and Class

1. CSS Selectors

- ID Selectors

- Class Selectors

- Descendant / Child Selectors

- Attribute Selectors

- CSS - Pseudo Classes

2. CSS Background

- background-image

- background-repeat

- background-position

3. Text Fonts

4. Lists Tables

5. Box Model

6. Display Positioning

7. CSS Floats

8. Flex Box

## Javascript

1. Syntax, Variables, Values, Data Types

- Syntax review

- Variable declaration

- Variable scope

- Block scope

2. Data Type

- Primitive values

- Reference values

- Types

3. Expressions and Operators

- Expressions (arithmetic, relational, logical, assignment and others)

- Operators overview

4. Arrays

5. For Loops

6. Objects

7. Named Function

8. Callbacks

9. Scope

10. Pure vs Impure Functions

11. Context (this)

12. String Methods

13. Array Methods

# Jquery

1- What is jQuery? What is the puropose of it?

2- Summary of Prerequisites required for learning jQuery?

3- Will jQuery work in all browsers?

4- How to use jQuery in your projects?

5- jQuery Syntax

6- How to escape a special characters

7- JQuery Selectors and Events, Effects

8- JQuery HTML and Traversing

9- JQuery Ajax & JSON

Ajax with jQuery

a) Load method

b) jQuery get and getJson methods

c) jQuery POST request

d) Retrieving js file

e) Helper methods

10- How to use multiple jQuery versions in one project?

11- AJAX - The XMLHttpRequest Object

At the end of the course, will be able to get:

a) Use JavaScript to write modern, reactive Websites

b) Understand how JavaScript works and how to use its many advantages

c) Dive into JavaScript Libraries like jQuery or Frameworks like Angular 2 or React

# Ms SQL

1. Connecting to SQL server
2. Introduction to SSMS
3. Creating, Altering & Dropping Database
4. Creating & Working with Tables
5. Constraints – Default, Unique, Check
6. Cascading referential integrity constraint
7. Identity Column
8. All about SELECT
9. Operators & Wild Cards
10. Group By
11. WHERE & HAVING
12. JOINS
13. ISNULL, COALESCE, CASE, IIF, CHOOSE
14. UNION & UNION ALL
15. Stored Procedures
16. Built in String functions
17. Date Time functions
18. CAST, CONVERT, TRY\_PARSE & TRY\_CONVERT
19. Mathematical Functions
20. User-Defined Functions
21. WITH ENCRYPTION & SCHEMABINDING
22. Temporary & Global Tables
23. Indexes
24. Views
25. Triggers
26. Derived Tables & CTE
27. Table Variables
28. Database Normalization
29. Pivot
30. Error Handling
31. Transactions
32. Subqueries
33. Cursors
34. Merge
35. Repeatable Read, Serializable & Snapshot Isolation
36. SQL Server Deadlock Handling
37. EXCEPT, NOT IN & INTERSECT
38. Cross Apply & Outer Apply
39. SELECT INTO
40. About Audit table
41. CUBE & ROLLUP
42. OVER & ROW\_NUMBER
43. RANK & DENSE\_RANK
44. Lead & Lag
45. Pagination – Fetch & Offset
46. GUID
47. Dynamic SQL
48. SQL Injection
49. SQL Server Query Plan Cache