.NET Full Stack Batch
Mock Client Interview Topics

DBMS Concepts and MS SQL Server
- o Introduction to Databases
- o Database Models
  - • Relational Model
- o Data Design and Normalization
- o Structured Query Language and its categories
  - • DDL – DML – DQL – DCL – TCL
- o SELECT statement varieties with clauses
  - • WHERE clause
  - • GROUP BY clause
  - • HAVING clause
  - • ORDER BY clause
- o Using SQL Server built in Functions
- o Joining the tables – Join variants
  - • Equi and Non-Equi Joins
  - • Self-Join
  - • Cartesian Product
  - • Outer Join
- o Subqueries
- o Implementing Views
- o Implementing Data Integrity by using Constraints
  - • Data Integrity Overview
  - • Creating Constraints
  - • Implementing Constraints
  - • Not Null
  - • Unique Key
  - • Primary key
  - • Check Constraints
  - • Default
  - • Foreign Key
- o Implementing Stored Procedures and Functions

C# 8.0 Programming with .NET Core 3.0

.NET Core:
- o Intro to .NET Core
- o Why .NET Core
- o Advantages
- o Features
- o Creating a console application in .NET core
- o Building from Command Prompt
- o Executing a Core Project from Command Prompt

C# Types
- o Value and Ref Types
- o String Manipulation
- o Arrays

- Boxing and Unboxing
- Type Conversion
- Scope
- Nullable Types
- Named and Optional Arguments

C# Flow Control
- Branching
- Switching
- Looping
- Using Foreach

Object Oriented Programming
- Characteristics of Object-Oriented Programming
- Classes and Objects
- namespaces
- Constructor
- Properties
- Inheritance
- Access Modifiers
- Virtual members
- Abstract classes
- Static
- Read-only and const fields
- Interfaces

Exception Handling
- Built in Exceptions
- Handling Exceptions
- Custom Exception classes
- Throwing exceptions

Generics and Collections
- Need of Generics
- Generic Classes
- Generic Methods & Constraints
- Non-generic Collections
- Generic Collections
  - List
  - Stack
  - Queue
    - Dictionary
    - SortedList
- Benefits of Generic Collections

LINQ
- Introduction to Language Integrated Query

- Query a collection of objects

LAMBDA Expressions
- Introduction to Expression Language Syntax using Lambda Expression

ADO.NET
- Overview of ADO.NET
- ADO.NET APIs
- Performing CRUD Operations using Connected
- Performing CRUD Operations using Disconnected