**Learn C# Step by Step with C# Interview Questions and Answers Videos  
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**C# tutorial for beginners**

Lab 1 :- C# fundamentals, For loop, data types, Error handling, classes/objects, Methods and functions.

Lab 2 :- Synch, Asynch, Delegates, Multicast Delegates and Events.

Lab 3 :- Simple File Search Project.

Lab 4 :- Customer Project(2 layers and validations).

Lab 5 :- Inserting customer data using ADO.NET.

Lab 6 :- Display, Update and Delete.

Lab 7 :- Reusability and Configuration.

Using SQL script files.

Lab 8:- Implementing the Product master table.

Lab 9 :- Implementing Stored Procedures.

Lab 10 :- In-memory inserts and update.

Lab 11 :- In-memory Deletes & understanding Usability.

Question 1  :- Explain difference between .NET and C# ?  
Question 2  :- .NET Framework vs .NET Core vs .NET 5.0  
Question 3  :- What is IL ( Intermediate Language) Code ?  
Question 4  :- What is the use of JIT ( Just in time compiler) ?  
Question 5  :- Is it possible to view IL code ?  
Question 6  :- What is the benefit of compiling in to IL code ?  
Question 7  :- Does .NET support multiple programming languages ?  
Question 8  :- What is CLR ( Common Language Runtime) ?  
Question 9  :- What is managed and unmanaged code ?  
Question 10 :- Explain the importance of Garbage collector ?  
Question 11 :- Can garbage collector claim unmanaged objects ?  
Question 12 :- What is the importance of CTS ?  
Question 13 :- Explain CLS ?   
Question 14 :- Difference between Stack vs Heap ?  
Question 15 :- What are Value types & Reference types?  
Question 16 :- Explain boxing and unboxing ?  
Question 17 :- What is consequence of boxing and unboxing ?  
Question 18 :- Explain casting,implicit casting and explicit casting ?  
Question 19 :- What can happen during explicit casting ?  
Question 20 :- Differentiate between Array and ArrayList ?  
Question 21 :- Whose performance is better array or arraylist ?  
Question 22 :- What are generic collections ?  
Question 23 :- What are threads (Multithreading)?  
Question 24 :- How are threads different from TPL ?  
Question 25 :- How do we handle exceptions in C#(try/catch)?  
Question 26 :- What is the need of finally?  
Question 27 :- Why do we need the out keyword ?  
Question 28 :- What is the need of Delegates ?  
Question 29 :- What are events ?  
Question 30 :- Whats the difference between Abstract class and interface ?

**C# Interview Questions & Answers - Part 2.**

Question 31 - What is a Delegate and how to create a Delegate?  
Question 32 - Where have you used Delegates?  
Question 33 - What is a Multicast Delegates?  
Question 34 - What is an Event?  
Question 35 - How to Create an Event?  
Question 36 - Delegate VS Events.

**C# Interview Questions & Answers - Part 3.**

Question 37 :- What is a class and object ?  
Question 38 :- Abstraction vs Encapsulation?  
Question 39 :- Explain Inheritance ?  
Question 40 :- Explain virtual keyword ?  
Question 41 :- What is overriding ?  
Question 42 :- Explain overloading ?  
Question 43 :- Overloading vs Overriding ?

**C# Interview Questions & Answers - Part 4.**

Question 44  :- What is polymorphism ?  
Question 45  :- Can polymorphism work with out inheritance ?  
Question 46  :- Explain static vs dynamic polymorphism ?  
Question 47  :- Explain operator overloading ?

**C# Interview Questions & Answers - Part 5.**

Question 48  :- Why do we need Abstract classes ?  
Question 49  :- Are Abstract methods virtual ?  
Question 50  :- Can we create a instance of Abstract classes ?  
Question 51  :- Is it compulsory to implement Abstract methods ?  
Question 52  :- Why simple base class replace Abstract class ?  
Question 53  :- Explain interfaces and why do we need it ?  
Question 54  :- Can we write logic in interface ?  
Question 55  :- Can we define methods as private in interface ?  
Question 56  :- If i want to change interface whats the best practice ?  
Question 57  :- Explain Multiple inheritance in Interface ?  
Question 58  :- Explain Interface Segregation principle ?  
Question 59  :- Can we create instance of interface ?  
Question 60  :- Can we do Multiple inheritance with Abstract classes ?

**C# Interview Questions & Answers - Part 6.**

Abstract Class vs interface interview questions and answers.

**C# Interview Questions & Answers - Part 7.**

Question 62  :- Why do we need constructors?  
Question 63  :- In parent child which constructor fires first ?  
Question 64  :- How are initializers executed ?  
Question 65  :- How are static constructors executed in Parent child ?  
Question 66  :- When does static constructor fires ?

**C# interview questions with answers PDF**

**.NET Fundamentals Q & A (20 Hrs)**

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What is IL code, CLR, CLS & JIT? - Part1 (9 Minutes)

What is IL code, CLR, CLS & JIT? - Part2 (10 Minutes)

Explain JIT,Pre-jit,Eco-Jit,Normal-Jit and NGEN.EXE?(19 Minutes)

What is CAS, evidence, permission set & code groups? (9 Minutes)

What are the changes in .NET 4.0 security model & What is sandboxing?(12 Minutes)

Explain Assembly, EXE and DLL.

Explain App Domain.

What is the difference between managed & unmanaged code? (5 Minutes)

What is Garbage Collector Gen 0, 1 & 2? (10 Minutes)

What is IDisposable interface & finalize dispose pattern in GC? (9 Minutes)

What is the difference between strong and weak references? (11 Minutes)

What is delay signing? (9 Minutes)

Can we see simple example of GAC & How to handle multiple versions in GAC(Binding redirect)? (16 Minutes)

What are different .NET datatypes and its uses according to scenarios? (39 Minutes)

Explain TypeSafe, Casting, Explicit casting and Implicit casting? (12 Minutes)

Explain the sentence "C# strings are immutable"?(Also covers stringbuilder & interning) (22 Minutes)

Explain Synch, Asynch, Delegates, Multicast Delegates and Events.

How can we make Asynchronous method calls using delegates? (5 Minutes)

What are anonymous methods in C#? (12 Minutes)

Why anonymous types are preferred over Tuples? (25 Minutes)

What is the use of Lambda Expression Action<>, Predicate<> & Func<>? (28 Minutes)

What do you mean by Covariance & Contravariance in .NET 4.0? (11 Minutes)

What is the use of checked and unchecked keyword? (7 Minutes)

What is a stack, Heap, Value types and Reference types? (14 Minutes)

What is boxing and unboxing? (10 Minutes)

C# Out Vs Ref. (7 Minutes)

What is optimistic and pessimistic locking? - Part1 (7 Minutes)

Can you explain optimistic locking? - Part2 (12 Minutes)

Can you explain pessimistic locking? - Part3 (15 Minutes)

What are regular expressions & can we see some practical demonstrations? (16 Minutes)

.NET 4.5 feature - Why do we need REGEX timeout? (8 Minutes)

5 tips to improve your C# debugging.(18 Minutes)

Can you explain Named Parameters, Ref, Out, Volatile & Parsetry? (38 Minutes)

What is the difference between Const & ReadOnly? (8 Minutes)

Explain the difference between "IS" and "AS" keyword? (5 Minutes)

What are Extension Methods? (11 Minutes)

What is #Debug directive? (5 Minutes)

What is the difference between Debug and Release? (8 Minutes)

What is serialization and deserialization? (14 Minutes)

What is the difference between TypeOf and GetType? (7 Minutes)

What is IComparable and IComparer? (16 Minutes)

What is the use of Yield Keyword in C#? (11 Minutes)

What is a C# indexer? (7 Minutes)

What is the difference between == vs .Equals()? (21 Minutes)

When should we override GetHashCode? (27 Minutes)

What are ??(Coalescing operators)? (4 Minutes)

What is C# reflection? (11 Minutes)  
What is Dynamic keyword & How does it differ from Reflection? (9 Minutes)  
What is the difference between Early binding and Late binding? (4 Minutes)  
What is a difference between VAR and Dynamic keyword? (5 Minutes)  
What is the use of VAR keyword in C#? (15 Minutes)  
What are Circular Dependencies and How to resolve them? (10 Minutes)  
How can we mark a method as deprecated? (3 Minutes)  
What is the difference between Build VS Rebuild Vs Clean? (6 Minutes)  
Importance of bin folder & obj folder in C#.  
What is Naming Convention? (8 Minutes)  
What is Nuget? (6 Minutes)  
What are portable class libraries? (4 Minutes)  
What is Asynch and Await keywords? (6 Minutes)  
Explain Concurrency VS Parallelism? - (Part 1)  
Does Async use threads? - (Part 2)  
What are ENUM's and flags in ENUMS? (7 Minutes)  
How to convert string to ENUM? (5 Minutes)  
How to use MSMQ with C#? (16 Minutes)  
Explain NULLABLE Types? (4 Minutes)  
Explain C# Attributes? (16 Minutes)  
What is AutoMapper? (6 Minutes)  
What are DataAnnotations? (10 Minutes)  
C# Random numbers. (20 Minutes)  
What is .NET Core, DNX, DNU and DNVM? (46 Minutes)  
How to work with files and folders (System.IO)?  
Explain C# Exceptions ?  
Difference between Throw and Throw ex in C#?  
Learn Redis Cache in 20 minutes.  
POST, GET, PUT, DELETE & PATCH.  
Preprocessor Directives/Symbols.

**Generics/.NET collections Q & A**

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What are the different types of collections in .NET?- Part 1

What is the difference between Array & ArrayList?- Part 2

Can you prove why arrays are faster than arraylist?- Part 3

What are the problems with arraylist & how can we solve the same by Hashtables?- Part 4

What are stacks & queues?- Part 5

What are special collections?- Part 6

What are Generics & What are generics collections?- Part 7

What are generics collections?- Part 8

What is the use of IEnumerator, ICollection, IDictionary & IList?- Part 9

What is the difference between IEnumerable and IEnumerator?

Differentiate between IEnumerable vs IQueryable?

Explain Generics Constraints?