

Course content for .Net:

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C#:

- C Programming Language Basics and Compilation
- C# Language Basics
- How compilation happens in .Net
- About Visual studio
- Basic programming elements
- Operators,Data Types,Stack,Heap.
- Class and Object. Heap and Objects.
- Methods,Fields Variables.Scope of Variables.
- Value types and reference types,boxing and unboxing
- Arrays,Strings,String Builder,verbatim string.
- For,For-each,Switch.
- Method return types with arrays and objects.
- Different access modifiers.
- Encapsulation,Abstraction,Inheritance,Polymorphism.
- Constructors and Object creation and Calling methods.
- Constructors calling sequence.
- Types of Classes
- Static
- Sealed
- Abstract
- Instance
- Partial Class
- Nested class
- Over loading
- Default access modifiers for classes ,namespace and struct.
- Overriding
- method hiding using new.
- structs,enums,this key word.Pass by value and pass by ref,ref,out.
- private and static constructors.
- Interfaces
- When to use abstract class and interface
- Properties and Indexers
- Exception handling.Custom exceptions.
- Delegates and Events.Name space aliasing.
- Nullable Types
- Visual studio Basics
- How to work in IDE
- Compilation , Running, Watch and Quick watch
- attaching to process
- VS shortcuts like code refactoring etc...
- Types of .net applications.

NET FRAMEWORK:

- Architecture of .net framework
- PE files and Assemblies, Manifest, Metadata.
- CLR, CLS, CTS.

- Using ILDASM and NGEN.exe
- Private and shared assemblies.dll hell problem.
- SN utility and strong naming and Delay signing
- Garbage Collection Basics, Generations.Un managed resources.
- Destructors, Finalize and IDisposable Interface.Destructor execution order in inheritance.
- Collection classes and generics.Which collection to choose.
- Iterators
- Attributes
- Reflections.
- use of pdb files

ASP.NET:

How your Gmail or Yahoo mail works

- Client and server mechanism
- Interaction between computers
- IIS and virtual directory.
- HTML Basics
- writing simple asp.net pages and execution
- Redirecting user to another page and round trips
- Page Life cycle
- application life cycle
- validating data on client and server
- JavaScript
- Master pages, themes and skins.
- State Management techniques
 - View state
 - Cookies
 - Session
 - Application
- Control state and profiles properties
- Error handling in asp.net
- Tracing
- Basic controls, user controls and custom controls.
- Web parts
- Data controls and ADO.net
- LINQ
- Config files and Global. asax
- Security.Roles.Authentication and Authorization, Membership providers.
- Caching
- Authentication and Authorization.
- RoleBased Security.
- New 4.0 techniques.
- AJAX
- XML
- 3 layered and 3 tier architecture.
- Assignments.
- References.

MVC:

- Architecture of MVC
- Dealing with Views
- Dealing with Controllers
- Dealing with Models
- Using HTML Helpers
- Understanding Model property
- Creating strongly typed views
- Performing validations in MVC
- Dealing with JQuery

WCF:

- Creating a WCF service
- Creating a WCF client
- Understanding Client and Service interaction
- Overview of WCF
- Service Contracts
- Operation Contracts
- Overloading operations
- Data Contracts
- Dealing with faults
- ABC of WCF
- Understanding Different types of binding used in WCF
- Understanding SOAP messages
- Deploying wcf applications