

# Naresh Information Technologies

## Windows Communication Foundation (WCF)

By Mr. Nagaraju Bende

Day #	Windows Communication Foundation [with workflow]
1	<i>Distributed Programming. Evolution of Services. What is a Service and what is Service-orientation. Service-oriented Architecture and .NET Remoting Architecture. Message flow in XML Web-Services. Drawbacks of Web-Services and why WCF is needed.</i>
2	<i>What is WCF? How it is different from Web Services. Evolution of WCF to present form. WCF as a unified model. Endpoints concept in WCF</i>
3	<i>Creating a WCF project. Types of Contracts in WCF and how they can be defined. Types of hosting in WCF. .NET support for WCF. Demo for creating a simple WCF Service in console and hosting it</i>
4	<i>Consuming a WCF Service. Demo for the same. Visual Studio role in building WCF applications – Templates, tools, testing and hosting environments. Creation of a simple WCF application in Visual Studio. Using Data Contracts for serializing and WCF-enabling complex types</i>
5	<i>Client interaction with MEX endpoint. Complete demo for creating a WCF service library, testing and consuming in host environment. Extending the demo for hosting it with Windows Services and consuming it from a client program.</i>
6	<i>Configuring endpoints. Specifying a Service Contract. Creating a WCF Service using web template and hosting in IIS. Demo for the same. Creating proxy from command line.</i>
7	<i>Message Exchange Patterns – One-way, Request-Reply and Duplex. Describing Message Exchange patterns using attributes.</i>
8	<i>Message Exchange patterns contd. – Duplex pattern. Instance Management–Modes of Service instances. Sessions in WCF. Demo for Duplex communication creating both client and server programs.</i>
9	<i>Web Programming using WCF. Use of WebHttpBinding. Explanation of SOAP, JSON, POX and REST styles. VS.NET role in WCF-AJAX integration. Demo for creating and consuming a service in AJAX using JSON serialization</i>
10	<i>Demo contd. Consuming the Service</i>
11	<i>WCF support for REST with WebGet and WebInvoke attributes. How REST works – URI template and holes concept. Demo for creating a WCF Service with REST.</i>
12	<i>WorkFlow</i>
13	<i>WorkFlow</i>

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