

Workshop	
Name	WF 4.0
Duration	3 days
Objective	Developing process driven application using WF 4.0
Participants' Entry Profile	Participants attending this course must have worked on: .NET 3.5
Training Methodology	The workshop will follow Synergetics methodology of Concept Visualization Active Experimentation Application Development. The workshop will be 100% Hands-On with each participant having access to system during the session

Setup Requirements	
Hardware and Software Requirements	Participant's as well as Trainer's Machine are required to have : Hardware Pentium 4 2.0 GHz 2 GB RAM LAN Connectivity 100GB HDD (Free Space) Software Windows 7 or Windows 8 Microsoft SQL Server 2008 R2 Microsoft Visual Studio .Net 2010
Training Lab Requirements	Whiteboard 6 feet by 4 feet (minimum) Whiteboard markers – Red, Blue, Green, Black Video Projector (1024 X 768 resolutions)

Course Contents**Day 1**

- **Overview of WF 4.0 Features**
 - WF 4 architecture
 - Workflow Data Model
 - Workflow Activities in WF 4.0
 - Hosting WF 4.0 workflows
 - Persistence in WF 4.0

- **WF 4.0 Architecture**
 - **Activities Runtime Tooling**
 - Declarative and code only workflows

- **Workflow Data Model**
 - Flow of data and data scopes in WF 4.0
 - Variables
 - Arguments
 - Expressions

- **Hosting WF 4.0 workflows**
 - ActivityRuntime
 - WorkflowInstance class
 - WorkflowInvoker class

- **Workflow Activities in WF 4.0**
 - WorkflowElement class
 - Control Flow Activities
 - Sequence and Flowchart activity
 - Pick Activity
 - DoWhile/While Activity
 - ForEach Activity
 - Object interaction activities
 - Assign Activity

Day 2

- Error handling activities
 - TryCatch Activity
 - Throw Activity
 - Compensate Activity
 - Compensable Activity
 - TransactionScope Activity

- **Persistence in WF 4.0**
 - Creating a Bookmark
 - Resuming a bookmark
 - Configuring the Persistence Extension
 - Using the Persist activity
 - WF 4 Workflow Services
 - WF WCF Integration

- Building workflow services
- Returning faults
- Hosting

- **Hosting workflow services**
 - Self hosting
 - Managed hosting
 - Controlling behavior
 - Workflow control endpoint

Day 3

- **Correlation in workflow services**
 - Understanding correlation
 - Content-based correlation
 - Correlation with multiple receives
 - Request Reply correlation
 - Context correlation

- **WF 4 consuming services**
 - Messaging activities
 - Add service reference
 - Using messaging activities
 - Handling faults
 - Channel caching