

# Windows Workflow Foundation

## Using C#

### Description

Microsoft's Windows Workflow Foundation (WF) provides a framework for creating scalable applications consisting of independent program units called activities. WF 4 was a major rewrite of this technology, offering significantly higher performance and making it easier to create and execute workflow applications. WF 4.5 contains new activities, designer capabilities, and a new workflow development model (state machines). It also supports the use of C# expressions in C# workflows. This four-day course covers WF 4.5 and uses Visual Studio 2013, which provides a visual designer for creating workflows.

This Windows Workflow Foundation Using C# training class begins with an overview of the concepts of workflow and the programming model provided by WF. The essentials of WF programming are then covered, followed by a systematic treatment of the major features of WF, including the Built-In Activity Library. Other topics covered in this course include primitive and control flow activities, the alternatives to hosting workflow, collection and parallel activities, the creation of custom activities, flowchart and state machine activities, persistence and bookmarks, Workflow Services and using Windows Communication Foundation (WCF). The course concludes with a discussion of debugging, error handling, transactions and compensation.

### Delegates will learn how to

- Understand the concept of workflow and the architecture of WF
- Implement workflow applications using WF
- Use standard activities from the Built-In Activity Library
- Implement custom activities for workflow applications
- Provide hosting for workflow applications
- Implement persistence in workflow applications
- Implement and consume workflow services
- Debug workflow applications
- Handle errors and perform compensation in workflow applications

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## Outline

Workflow Foundation Conceptual Overview

Getting Started with WF 4.5

Primitive and Control Flow Activities

Custom Activities

Workflow Hosting

Collection and Parallel Activities

More about Custom Activities

Flowchart and State Machine

Persistence

Workflow Services

## Prerequisites

There is no prerequisite