

MS 6462A - Visual Studio 2008: Windows workflow foundation

Overview

This two-day instructor-led course provides students with the knowledge and skills to build and configure a Windows Workflow Foundation (WF) solution.

Audience

This course is intended for application developers who know how to create applications in Visual Studio 2005 or 2008. The course does not require previous experience creating workflow-based solutions.

At Course Completion

After completing this course, students will be able to:

- Explain Windows Workflow Foundation concepts and features
- Create sequential workflows
- Create state machine workflows
- Modify workflows at run time
- Implement conditional branching in a workflow
- Define and execute rule sets
- Forward chain rules
- Change rules at run time
- Call methods on the host process
- Handle events from the host process
- Consume services from a workflow
- Publish a workflow as a service
- Create a custom activity
- Create a custom composite activity
- Define custom activity layout
- Customize activity serialization
- Create a custom runtime service
- Hydrate and dehydrate workflows
- Monitor workflows
- Track workflows
- Handle faults in a workflow
- Handle cancellations in a workflow
- Create and manage transactions in a workflow
- Create and handle compensations

Prerequisites

Before attending this course, students should have intermediate experience developing applications by using previous versions of Microsoft Visual Studio at level 200.

Course Outline

Module 1: Creating and Hosting Workflows

This module explains how to create and host Windows Workflow Foundation (WF) workflows.

Lessons

- Overview of Windows Workflow Foundation
- Creating Sequential Workflows
- Creating State Machine Workflows
- Modifying Workflows at Runtime

Lab: Creating and Hosting Workflows

- Creating and hosting a simple sequential workflow
- Passing parameters into a workflow

- Creating a state machine workflow
- Hosting the state machine workflow

Module 2: Applying Conditions and Rules

This module explains how to apply conditions and rules in a workflow.

Lessons

- Implementing Flow Control
- Defining and Executing Rule Sets
- Forward Chaining of Rules
- Changing Rules at Run Time

Lab: Applying Conditions and Rules

- Making Decisions
- Performing Iteration
- Defining Policies

Module 3: Communicating with Workflows

This module explains how to communicate between workflows, host processes, and services.

Lessons

- Calling Methods on the Host Process
- Handling Events from the Host Process
- Consuming Services from a Workflow
- Publishing a Workflow as a Service

Lab: Communicating with Workflows

- Invoking a Method on the Host Process
- Handling Events from the Host Process
- Consuming Services from a Workflow
- Publishing a Workflow as a Service

Module 4: Creating and Configuring Custom Activities

This module explains how to create and configure custom activities.

Lessons

- Creating Custom Activities
- Creating Custom Composite Activities
- Customizing Activity Serialization
- Defining Custom Activity Layout

Lab: Creating and Configuring Custom Activities

- Creating a Custom Activity
- Validating a Custom Activity
- Developing a Custom Activity Designer
- Creating a Custom Composite Activity

Module 5: Creating and Managing Runtime Services

This module explains how to create and manage runtime services.

Lessons

- Creating a Custom Runtime Service
- Hydrating and Dehydrating Workflows
- Monitoring Workflows
- Tracking Workflows

Lab: Creating and Managing Runtime Services

- Creating a Custom Runtime Service
- Hydrating and Dehydrating Workflows
- Monitoring Workflows
- Tracking Workflows

Module 6: Managing Faults, Cancellations, Transactions, and Compensations

This module explains how to manage faults, cancellations, transactions, and compensations in a workflow.

Lessons

- Handling Faults
- Handling Cancellations
- Creating and Managing Transactions
- Creating and Handling Compensations

Lab: Managing Faults, Transactions, and Compensations

- Handling Faults
- Implementing Transactional Behavior
- Implementing Compensation Behavior

Upcoming Classes

Jun 20, 2012 - Jun 21, 2012

Jul 09, 2012 - Jul 10, 2012

Jul 09, 2012 - Jul 10, 2012

Aug 13, 2012 - Aug 14, 2012

Sep 26, 2012 - Sep 27, 2012

Oct 09, 2012 - Oct 10, 2012

Nov 13, 2012 - Nov 14, 2012

Dec 05, 2012 - Dec 06, 2012