

Windows Workflow Foundation

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

After completing this module, students will be able to:

- Explain Windows Workflow Foundation concepts and features.
- Create sequential workflows.
- Create state machine workflows.
- Modify workflows at run time.

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

After completing this module, students will be able to:

- Implement conditional branching in a workflow.
- Define and execute rule sets.
- Forward chain rules.
- Change rules at run time.

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

After completing this module, students will be able to:

- Call methods on the host process.
- Handle events from the host process.
- Consume services from a workflow.
- Publish 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

After completing this module, students will be able to:

- Create a custom activity.
- Create a custom composite activity.
- Define custom activity layout.
- Customize activity serialization.

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

After completing this module, students will be able to:

- Create a custom runtime service.
- Hydrate and dehydrate workflows.
- Monitor workflows.
- Track 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

After completing this module, students will be able to:

- Handle faults in a workflow.
- Handle cancellations in a workflow.
- Create and manage transactions in a workflow.
- Create and handle compensations.