Designing Runbook Automation with Orchestrator 2012

Number of Days: Three (3)

Prerequisites:

Before attending this course, students should have:

- MCITP certification, or equivalent knowledge

The course materials, lectures, and lab exercises are in English. To benefit fully from our instruction, students need an understanding of the English language and completion of the prerequisites.

Instructors:

The instructors that deliver this course are experienced, enterprise consultants who are familiar with Orchestrator deployment and development of runbooks to fulfill a variety of common enterprise use cases. All of our instructors have real-world expertise and are both accomplished consultants and excellent presenters that make the delivery interesting and are able to share their insights around real world issues.

Description:

This deep technical, three-day, instructor-led course gives students the knowledge on how to implement runbook automation using System Center Orchestrator 2012 (SCOrch). The course approaches design, implementation and development in a logical sequence, beginning with design and deployment of the Orchestrator infrastructure. This is followed by a discussion and hands-on application of increasingly complex runbook automation authoring concepts. This is followed by a deep dive into logging and troubleshooting runbook automation issues. The course concludes with in-depth coverage of how to extend Orchestrator functionality through custom integration pack development. A description of topics by module is included below.

 After completing this course, students will be able to:

- Describe, deploy and optimize the logical architecture of an Orchestrator infrastructure
- Articulate the functions of the components and services in an Orchestrator infrastructure
- Develop advanced runbooks to integrate Microsoft and third party products
- Configure error handling and custom logging in Orchestrator runbooks
- Troubleshoot issues with Orchestrator components and Orchestrator runbook execution
- Explain Microsoft best practices for Runbook Lifecycle Management
- Design end-to-end process automation incorporating System Center products

- Develop custom activities and integration packs

This class consists of the following sessions:

Module 1: Architecture and Component Overview

This module presents an introduction to the Orchestrator architecture and components, security and terminology

After completing this session students will be able to:

- Describe the components in the Orchestrator architecture
- Explain the functionality of the components within an Orchestrator infrastructure

Module 2: User Interfaces and Runbook Settings

This module will discuss the interfaces available when working with Orchestrator. Additionally, runbooks and runbook settings within Orchestrator will be introduced.

After completing this session students will be able to:

- Describe the console interfaces available in Orchestrator
- Explain the Orchestrator settings and features that affect runbooks and runbook creation

Module 3: Runbook Basics

This module will discuss the concepts and decision processes when planning and building runbooks in Orchestrator.

After completing this session students will be able to:

- Describe the concepts and decision processes related to runbook design and creation in Orchestrator
- Understand how to use standard activities to control runbook execution

Module 4: Advanced Runbook Concepts

This module will discuss more advanced concepts and techniques that can be employed when creating runbooks in Orchestrator.

After completing this session students will be able to:

- Describe the concepts and decision processes related to runbook design and creation in Orchestrator
- Understand how to use standard activities to control runbook execution

Module 5: Creating Complex Runbooks

This module will discuss standard activities commonly utilized in design and creation of more advanced runbooks and how to utilize them to create more sophisticated runbooks in Orchestrator.

After completing this session students will be able to:

- Describe standard activities commonly used in complex runbooks in Orchestrator
- Understand how to create more complex runbooks incorporating these standard activities

Module 6: Error Handling, Lifecycle Management and the Orchestrator Web Service

This module will discuss how to build error handling into Orchestrator runbooks, as well as how to manage the versioning and promotion of runbooks into production. Additionally, calling Orchestrator from other applications, such as Windows PowerShell and Excel 2010 PowerPivot

After completing this session students will be able to:

- Discuss how to build error handling into Orchestrator runbooks
- Understand proper lifecycle management processes for versioning and promotion of Orchestrator runbooks

Module 7: System Center and 3rd Party Integration

This module will discuss the System Center Integration Packs available for Orchestrator and how they can be leveraged to create integrated automation solutions for the data center and private cloud.

After completing this session students will be able to:

- Review the System Center Integration Packs (IPs) for Orchestrator
- Understand how to use the activities in the System Center IPs to deliver integrated automation solutions for the System Center Suite

Module 8: Troubleshooting and Advanced Administration

This module will discuss logging available in Orchestrator and how to adjust logging levels for troubleshooting purposes. Additionally, advanced administration and Orchestrator internals will be covered.

After completing this session students will be able to:

- Discuss advanced administrative topics related to Orchestrator
- Understand how to adjust logging levels in Orchestrator and troubleshoot common scenarios

Module 9: Extensibility Scenarios

This module will discuss how to extend the off the shelf functionality of Orchestrator using the Orchestrator Integration Kit.

After completing this session students will be able to:

- Describe the functionality in the Orchestrator Integration Kit
- Understand how to create a basic integration pack using the Orchestrator Quick Integration Kit