

VMware vRealize Automation: Orchestration and Extensibility [V8.1]

Code:	EDU-VRAOE81
Length:	5 days
URL:	View Online

During this five-day course, you focus on using VMware vRealize® Orchestrator™ to extend the functionality of VMware vRealize® Automation™. You learn how to provide XaaS (Anything as a Service) and implement Machine Lifecycle Extensibility using the VMware vRealize® Automation™ Event Broker. You also learn how to create vRealize Orchestrator workflows and vRealize Automation ABX actions. You learn about various features, including basic scripting implementation along with logic processing to implement a variety of functions to use in your environment. This course teaches implementing debugging, loops, conditions, and user interactions in vRealize Orchestrator.

- The course introduces the new vRealize Orchestrator HTML 5 interface, along with API calls and REST functions, to give you the groundwork to implement a variety of plugins and scripts. This course is designed to give you the tools to craft custom solutions in the product.

Skills Gained

By the end of the course, you should be able to meet the following objectives:

- Describe the features and benefits of integrating vRealize Orchestrator and vRealize Automation
- Describe the role of vRealize Orchestrator workflows and content elements in automation
- Use the vRealize Orchestrator client to access and navigate the vRealize Orchestrator platform
- Use the vRealize Orchestrator client to import and run vRealize Orchestrator library workflows
- Design, develop, and run custom reusable vRealize Orchestrator workflows
- Integrate vRealize Automation with vRealize Orchestrator to deliver custom IT services
- Use the vRealize Automation event broker service to trigger specific vRealize Orchestrator workflows
- Leverage the event broker to extend IaaS (Infrastructure-as-a-Service) machine lifecycle processes
- Use XaaS to extend vRealize Automation into other enterprise systems
- Use VMware APIs to run vRealize Orchestrator workflows

Who Can Benefit

Experienced VMware administrators, automation and orchestration specialists, system integrators, and private cloud and public cloud administrators

Prerequisites

This course requires the following prerequisites:

- Knowledge of VMware vSphere®
- VMware vRealize Automation: Install, Configure, Manage [V8.x] course or equivalent knowledge
- Working knowledge of scripting or programming using JavaScript, Windows PowerShell, Perl, Java, Python, or similar languages. All code is provided during class.

Course Details

Product Alignment

VMware vSphere® 7.0 VMware vRealize Automation 8.1 VMware vRealize Orchestrator 8.1 VMware vRealize® Suite Lifecycle Manager™ 8.1

Outline

Course Introduction

- Introductions and course logistics
- Course objectives

Overview of vRealize Automation and vRealize Orchestrator

- Define the purpose of vRealize Automation
- Outline the purpose of vRealize Orchestrator
- Describe the main components of vRealize Automation
- Describe the main components of vRealize Orchestrator

Creating Schema Elements

- Invoking JavaScript from a vRealize Orchestrator workflow
- Invoking a vRealize Orchestrator Workflow from a vRealize Orchestrator workflow
- Invoking an action from a vRealize Orchestrator workflow
- Using vRealize Orchestrator workflows both synchronously and asynchronously

Working with Variables

- Defining inputs, outputs, and variables in vRealize Orchestrator workflows
- Binding variables in vRealize Orchestrator workflows
- Wrapping vRealize Orchestrator workflows
- Using APIs and the API Explorer
- Creating actions in vRealize Orchestrator
- Using vRealize Orchestrator input forms

- Handling user interactions in vRealize Orchestrator

Handling Exceptions, Logging, and Debugging

- Handling exceptions in vRealize Orchestrator workflows
- Using logs in vRealize Orchestrator workflows
- Debugging vRealize Orchestrator workflows

Branching and Looping

- Using branching in vRealize Orchestrator workflows
- Using loops in vRealize Orchestrator workflows

Working with Assets

- Using configuration elements in vRealize Orchestrator
- Using resources in vRealize Orchestrator
- Using packages in vRealize Orchestrator

Working with Plug-Ins

- Downloading and installing Plug-Ins
- Using the SSH plug-In in vRealize Orchestrator
- Using the REST plug-in in vRealize Orchestrator
- Using the SOAP plug-in in vRealize Orchestrator
- Using the PowerShell plug-in in vRealize Orchestrator

Working with Versioning and Git

- Using versioning in vRealize Orchestrator
- Using Git in vRealize Orchestrator

Scheduling, Sleeping, and Waiting

- Using scheduling in vRealize Orchestrator
- Using sleeping in vRealize Orchestrator
- Using waiting in vRealize Orchestrator

Introduction to vRealize Automation Extensibility

- Introduction to extensibility
- Using ABX actions
- Using Python
- Using Nodejs
- Using PowerShell
- Using vRealize Automation Lifecycle

Extending vRealize Automation with Event Broker

- Overview of vRealize Automation Event Broker
- Creating vRealize Automation subscriptions
- Data exchange between vRealize Automation and vRealize Orchestrator

Using ABX Actions

- Overview of Action Based Extensibility (ABX)
- Comparison of vRealize Orchestrator and ABX
- Using Day-2 Actions in vRealize Automation

Working with Services, Custom Resources, and Resource Actions

- Using vRealize Orchestrator as a content source in vRealize Automation
- Using Day-2 Actions in vRealize Automation
- Creating custom resources in vRealize Automation
- Creating resource actions in vRealize Automation

Schedule (as of 3)

Date	Location
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