

# VMware Aria Automation: Orchestration and Extensibility [V8.13]

Course code: VMW\_AA0E

During this five-day course, you focus on using VMware Aria Automation Orchestrator™ to extend the functionality of VMware Aria Automation™. You learn how to provide XaaS (Anything as a Service) and implement machine lifecycle extensibility using the VMware Aria Automation Event Broker. You also learn how to create VMware Aria Automation Orchestrator workflows and VMware Aria 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 VMware Aria Automation Orchestrator. The course introduces the VMware Aria Automation Orchestrator HTML 5 interface, along with API calls and REST functions, to give you the groundwork to implement a variety of plug-ins and scripts. This course is designed to give you the tools to craft custom solutions in the product.

## Who is the course for

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

## What we teach you

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

- Describe the features, benefits, components, and integration of VMware Aria Automation Orchestrator and VMware Aria Automation
- Describe the role of VMware Aria Automation Orchestrator workflows and content elements in automation
- Use the VMware Aria Automation Orchestrator client to access and navigate the VMware Aria Automation Orchestrator platform, and to import and run VMware Aria Automation Orchestrator library workflows
- Design, develop, and run custom reusable VMware Aria Automation Orchestrator workflows
- Use VMware APIs in the VMware Aria Automation Orchestrator workflow
- Integrate VMware Aria Automation with VMware Aria Automation Orchestrator instances to extend infrastructure as a service (IaaS) system life-cycle processes and to enhance and deliver custom IT services
- Use anything as a service (XaaS) to extend VMware Aria Automation to other enterprise systems
- Use the VMware Aria Automation Event Broker service to trigger specific VMware Aria Automation Orchestrator workflows

## Required skills

Before taking this course, you should have completed the following course:

- VMware Aria Automation: Install, Configure, Manage [V8.10] course or equivalent knowledge

You should also have the following understanding or knowledge:

- Knowledge of VMware vSphere
- Working knowledge of scripting or programming using JavaScript, Windows PowerShell, Perl, Java, Python, or similar languages. All code is provided during class.

## Course outline

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 Overview of VMware Aria Automation and VMware Aria Automation Orchestrator

- Define the purpose of VMware Aria Automation
- Outline the purpose of VMware Aria Automation Orchestrator
- Describe the main components of VMware Aria Automation

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- Describe the main components of VMware Aria Automation Orchestrator

## 3 Using Schema Elements

- Describe a scriptable task
- Run a Polyglot script from a VMware Aria Automation Orchestrator workflow
- Run JavaScript from a VMware Aria Automation Orchestrator workflow
- Run a VMware Aria Automation Orchestrator workflow from a VMware Aria Automation Orchestrator workflow
- Run an action from a VMware Aria Automation Orchestrator workflow
- Use VMware Aria Automation Orchestrator workflows both synchronously and asynchronously

## 4 Working with Variables

- Define inputs, outputs, and variables in VMware Aria Automation Orchestrator workflows
- Bind variables in VMware Aria Automation Orchestrator workflows
- Explain the purpose of binding in VMware Aria Automation Orchestrator workflows
- Wrap VMware Aria Automation Orchestrator workflows
- Using APIs and the API Explorer
- Create actions in VMware Aria Automation Orchestrator
- Use VMware Aria Automation Orchestrator input forms
- Handle user interactions in VMware Aria Automation Orchestrator

## 5 Handling Exceptions, Logging, and Debugging

- Identify the function of exception handling
- Handle exceptions in VMware Aria Automation Orchestrator workflows
- Use logs in VMware Aria Automation Orchestrator workflows
- Debug VMware Aria Automation Orchestrator workflows
- Monitor variable values

## 6 Branching and Looping

- Use decision schema element for branching in VMware Aria Automation Orchestrator workflows
- Use switch schema element for branching in VMware Aria Automation Orchestrator workflows
- Use loops in VMware Aria Automation Orchestrator workflows

## 7 Working with Assets

- Create and use configuration elements in VMware Aria Automation Orchestrator
- Use resources in VMware Aria Automation Orchestrator
- Create and use packages in VMware Aria Automation Orchestrator

## 8 Working with Plug-Ins

- Explain the functionality of VMware Aria Automation Orchestrator plug-ins
- Download and install plug-ins
- Use the SSH plug-in in VMware Aria Automation Orchestrator
- Use the REST plug-in in VMware Aria Automation Orchestrator
- Use the VMware Aria Automation plug-in in VMware Aria Automation Orchestrator
- Use the PowerShell plug-in in VMware Aria Automation Orchestrator
- Use dynamic types in VMware Aria Automation Orchestrator

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## 9 Working with Versioning and Git

- Manage versioning in VMware Aria Automation Orchestrator
- Use Git in VMware Aria Automation Orchestrator

## 10 Working with Time-Related Schema Elements

- Use scheduling in VMware Aria Automation Orchestrator
- Use sleeping in VMware Aria Automation Orchestrator
- Use waiting in VMware Aria Automation Orchestrator

## 11 Introduction to Extensibility

- Introduction to VMware Aria Automation extensibility
- Explain the Event Broker Service
- Explain life cycle integration

## 12 Using the Event Broker

- Explain the functionality of the Event Broker Service
- Overview of VMware Aria Automation Event Broker
- Create VMware Aria Automation subscriptions
- Data exchange between VMware Aria Automation and VMware Aria Automation Orchestrator

## 13 Using ABX Actions

- Overview of Action Based Extensibility (ABX)
- Describe Function as a Service (FaaS)
- Differentiate between VMware Aria Automation Orchestrator and ABX
- Create an ABX action that is called by a VMware Aria Automation subscription

## 14 Working with Services, Custom Resources, and Resource Actions

- Describe the service broker service
- Use VMware Aria Automation Orchestrator as a content source in VMware Aria Automation
- Create custom resources in VMware Aria Automation
- Create resource actions in VMware Aria Automation

## 15 Capturing the vSphere Client Code

- Use vSphere Client code capture to capture code in VMware Aria Automation Orchestrator workflow, JavaScript, PowerCLI or other languages
- Use the captured code in VMware Aria Automation Orchestrator workflows or actions

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