

AU710

Red Hat Ansible Automation Platform Boot Camp

Learn how to automate Linux system administration tasks with Red Hat Ansible Automation Platform and manage complex automation workflows at scale and prevent single points of failure.

The Ansible Automation Platform Boot Camp (DO710) is designed for Linux administrators and developers who need to automate repeatable and error-prone steps for system provisioning, configuration, application deployment, and orchestration. Learn recommended practices for automation development using reusable code, advanced playbook techniques, shared execution environments, and preparing for scalable automation with the automation content navigator. Deploy automation controller to centrally manage automation workflows, automation mesh to scale up and distribute execution capacity, and private automation hub to manage Ansible Content Collections and automation execution environments for use by automation developers.

This collection of courses is based on Red Hat Ansible Automation Platform 2.5.

As part of enrollment, you will receive one year of Red Hat Learning Subscription Standard, which gives you unlimited access to all of our courses online, plus up to five certification exams.

Course content summary

- Installing Red Hat Ansible Automation Platform on control nodes.
- Creating and updating inventories of managed hosts and managing connections to them.
- Automating administration tasks with Ansible Playbooks.
- Writing effective playbooks at scale.
- Protecting sensitive data used by Ansible Automation Platform with Ansible Vault.
- Reusing code and simplifying playbook development with Ansible Roles and Ansible Content Collections.
- Apply recommended practices for effective and efficient automation with Ansible.
- Perform automation operations as rolling updates.
- Use advanced features of Red Hat Ansible Automation Platform to work with data, including filters and plugins.
- Create automation execution environments to contain and scale Red Hat Ansible Automation.
- Leverage capabilities of the automation content navigator to develop Ansible Playbooks.
- Discussion of the architecture of Red Hat Ansible Automation Platform 2.
- Installation and configuration of automation controllers and private automation hubs to centrally coordinate and scale Red Hat Ansible Automation.

- Integration of Red Hat Ansible Automation Platform with centralized Git repository services such as GitLab.
- Management of users, teams, and access permissions in Red Hat Ansible Automation Platform services.
- Creation and management of workflows that execute automation based on the success or failure of previous jobs
- Troubleshooting and maintenance of Red Hat Ansible Automation Platform services.
- Discussion of recommended practices to ensure high availability and scalability of a large automation cluster.

Audience for this course

This course is geared toward Linux system administrators, DevOps engineers, Site Reliability Engineers, infrastructure automation engineers, and developers who are responsible for repeatable tasks such as:

- Automating configuration management
- Ensuring consistent and repeatable application deployment
- Provisioning and deployment of development, testing, and production servers
- Integrating with DevOps continuous integration/continuous delivery workflows

Prerequisites for this course

- Become a Red Hat Certified System Administrator (RHCSA), or demonstrate equivalent experience

Outline for this course

- **Introducing Red Hat Ansible Automation Platform**
Describe the fundamental concepts of Red Hat Ansible Automation Platform and how it is used, and install Red Hat Ansible Automation Platform.
- **Implementing an Ansible playbook**
Create an inventory of managed hosts, write a simple Ansible playbook, and run the playbook to automate tasks on those hosts.
- **Managing variables and facts**
Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.
- **Implementing task control**
Manage task control, handlers, and task errors in Ansible playbooks.
- **Deploying files to managed hosts**
Deploy, manage, and adjust files on hosts managed by Ansible Automation Platform.
- **Managing complex plays and playbooks**
Write playbooks for larger, more complex plays and playbooks.

- **Simplifying playbooks with roles**
Use Ansible Automation Platform roles to develop playbooks more quickly and to reuse Ansible Automation Platform code.
- **Troubleshooting Red Hat Ansible Automation Platform**
Troubleshoot playbooks and managed hosts.
- **Automating Linux administration tasks**
Automate common Linux system administration tasks with Ansible Automation Platform.
- **Develop Playbooks with Ansible Automation Platform 2**
Develop Ansible Playbooks with Red Hat Ansible Automation Platform 2 following recommended practices.
- **Manage Content Collections and Execution Environments**
Run playbooks that use Ansible Content Collections not included in Ansible Core, either from an existing execution environment or by downloading them from automation hub.
- **Run Playbooks with Automation Controller**
Explain what automation controller is and use it to run playbooks that you developed with automation content navigator.
- **Work with Ansible Configuration Settings**
Examine and adjust the configuration of Ansible and automation content navigator to simplify development and to troubleshoot issues.
- **Manage Inventories**
Manage inventories by using advanced features of Ansible.
- **Manage Task Execution**
Control and optimize the execution of tasks by Ansible Playbooks.
- **Transform Data with Filters and Plugins**
Populate, manipulate, and manage data in variables using filters and plug-ins.
- **Coordinate Rolling Updates**
Use advanced features of Ansible to manage rolling updates in order to minimize downtime and to ensure maintainability and simplicity of Ansible Playbooks.
- **Create Content Collections and Execution Environments**
Write your own Ansible Content Collections, publish them, embed them in a custom automation execution environment, and run them in playbooks by using automation controller.
- **Installing Red Hat Ansible Automation Platform**
Explain what Red Hat Ansible Automation Platform is and perform a basic installation of automation controller and automation hub.

- **Managing User Access**
Create user accounts and organize them into teams/groups in automation controller and automation hub, and assign them permissions to administer and access resources in each service.
- **Managing Inventories and Machine Credentials**
Create inventories of machines to manage, and configure credentials necessary for automation controller's execution nodes to log in and run Ansible jobs on those systems.
- **Managing Projects and Launching Ansible Jobs**
Create projects and job templates in the web UI, using them to launch Ansible Playbooks that are stored in Git repositories, in order to automate tasks on managed hosts.
- **Advanced Job Configuration**
Configure advanced features of automation controller in order to more effectively and efficiently implement jobs.
- **Constructing Job Workflows**
Use advanced features of job templates to improve performance, simplify the customization of jobs, launch multiple jobs, schedule automatically recurring jobs, and provide notification of job results.
- **Managing Advanced Inventories**
Manage inventories that are generated dynamically from scripts or the automation controller smart inventory feature.
- **Automating Configuration of Ansible Automation Platform**
Automate the configuration and deployment of Red Hat Ansible Automation Platform services by using Ansible Content Collections, the automation controller API, and Git webhooks.
- **Maintaining Red Hat Ansible Automation Platform**
Perform routine maintenance and administration of Red Hat Ansible Automation Platform.

Impact on the individual

You will be able to apply automation first principles to solve real-world Linux system and services problems through the effective creation of Ansible playbooks and application of Red Hat Ansible Automation Platform. You will gain the skills to automate your workflows, build the foundation for DevOps practices, and learn how to leverage Ansible Automation Platform for developmental efficiencies. You will learn to develop automation in a way that scales to large teams and complex enterprises. You will gain the skills to effectively manage and optimize playbooks, create and share execution environments and collections, as well as learn how to use the automation content navigator for managing the automation lifecycle. You will learn how to install and manage automation controller and private automation hub of Red Hat Ansible Automation Platform 2 in order to deploy and operate Ansible automation services for your organization that you can extend to a larger scale.