

Certificate in Ansible



Certificate in Ansible

Ansible is an open-source automation tool used for configuration management, application deployment, and task automation. It allows IT administrators and DevOps teams to automate repetitive tasks, manage configurations across multiple systems, and deploy applications more efficiently.

Note: Please note that only assessment is provided and no learning resources will be provided.

Why should one take Certificate in Ansible?

Ansible can manage thousands of nodes simultaneously and integrates with various cloud platforms, making it scalable and adaptable to diverse infrastructures. It enables orchestration of complex workflows and automation of tasks such as software provisioning, configuration management, and application deployment.

Vskills Certificate in provides a hands-on approach to understand the nuances of orchestration and automation in cloud with Ansible, as well as understand Ansible to manage cloud resources.

Who will benefit from taking Certificate in Ansible?

System administrators, DevOps engineers and cloud engineers will benefit immensely by opting for Vskills Certificate in Ansible to gain an edge in the Ansible related job opportunities in the competitive job market.

Students taking the certification also gain by showcasing their understanding of Ansible and are able to increase their job opportunities.

Test Details

Duration: 60 minutesNo. of questions: 50

• Maximum marks: 50, Passing marks: 25 (50%)

There is no negative marking in this module.

Fee Structure

Rs. 1,999/- (Excludes taxes)*

*Fees may change without prior notice, please refer http://www.vskills.in for updated fees

Companies that hire Vskills Certificate in Ansible Professionals

Companies specializing in cloud administration, IT or cloud service providers are constantly hiring skilled Ansible professionals. Technology companies, consulting firms, finance and banking hire Ansible professionals for big data application testing related tasks. Companies employing Ansible professionals include Google, TCS, Accenture, IBM, Tech Mahindra, GE, Amex, Deloitte, Wipro, etc.

Table of Contents

1. Introduction

- 1.1 Introduction to Ansible
- 1.2 Ansible Core Versus Ansible Community
- 1.3 How Ansible Works?

2. Environment Setup

- 2.1 Launching Required Nodes / Servers for Ansible Setup
- 2.2 Launching Ansible-Controller Node CentOS9 Node from Windows WSL2
- 2.3 Installing Ansible-Core on CentOS9 with Python Version 3.9.x
- 2.4 Ansible Configuration to Work with Managed Nodes
- 2.5 Why Ansible Is Called Agentless Tool
- 2.6 Creating userId on Ansible Controller and Switching to ansadmin from userid
- 2.7 Simple Ansible Architecture
- 2.8 How to Get the Latest File or Directory from Current Location?

3. Ad-Hoc Commands with Modules

- 3.1 Introduction to Ansible Ad-Hoc Commands with Modules | Commands for Modules
- 3.2 Ansible Ad-Hoc Commands to Execute Any Unix/Linux Commands
- 3.3 Handling Arguments with Quotations
- 3.4 What Is the Backend Story to Execute Ansible Ad-Hoc Commands?

4. Ansible Ad-Hoc Command to Work with Files

- 4.1 List of File Modules to Work with files | file, Copy, lineinfile, blockinfile...
- 4.2 Ansible Ad-Hoc Commands with File Module to Create a File on Managed Nodes
- 4.3 Ansible Ad-Hoc Commands with stat Module
- 4.4 Ansible Ad-Hoc Commands with Copy Module
- 4.5 Ansible Ad-Hoc Commands with lineinfile Module to Append/Replace/Delete Lines
- 4.6 Ansible Ad-Hoc Command with Fetch Module to Download from Managed Nodes

5. Installing Packages on Different OS Families

5.1 Ansible Ad-Hoc Commands with yum and apt Modules to Install Packages

6. Executing Ansible Ad-Hoc Commands on Ansible Controller Node or on Localhost

6.1 Executing Ansible Ad-Hoc Commands on Ansible Controller Node Itself

7. Understanding the Output of Ansible Ad-Hoc Commands Output

7.1 Why Ansible Operations or Tasks Are Called Idempotent?

8. Executing Ansible Ad-Hoc Commands with Your User ID and Password

8.1 Executing Ansible Ad-Hoc Commands with Your Real-Time User ID and Password

9. Ansible Inventory File(s)

- 9.1 Inventory File(s) to Work with Multiple Environments
- 9.2 Types of Ansible Inventory Files

10. Ansible Configuration File(s)

10.1 Multiple Locations of Ansible Configuration Files and Their Priority

11. Shell Scripts with Ansible Ad-Hoc Commands

11.1 How to Use Ansible Ad-Hoc Commands in Shell Scripts

12. Ansible Facts

- 12.1 Ansible Default Facts with setup Module
- 12.2 How to Create Custom Facts Based on Requirement

13. Introduction to Playbooks

- 13.1 Introduction to Playbooks and Why We Need Playbooks
- 13.2 How to Use Visual Studio Code Editor to Develop Ansible Playbooks
- 13.3 First Playbook
- 13.4 Executing Playbooks on Ansible Controller Node Itself
- 13.5 Commands to Verify the Playbook Syntax

14. Basic Concepts to Develop Playbooks

- 14.1 Introduction to Ansible Custom Variables
- 14.2 Data Types of Variables
- 14.3 Data Structures of YAML Scripting
- 14.4 Read Variable Values from a File
- 14.5 Passing Variable(s) Value(s) from Command-Line
- 14.6 Usage of vars_prompt Section in Playbooks
- 14.7 host vars and group vars
- 14.8 Debug Module with vars and msg Arguments

15. Registered and setfacts Variables

- 15.1 Ansible Register Variable To Capture the Output of a Task into Variable
- 15.2 Ansible Set Fact Variables Define or Redefine Variable(s) in Between the Tasks

16. Operations on Variables

- 16.1 Types of Operators | Operations on Variables
- 16.2 Arithmetic Operators
- 16.3 Filters and Methods Usage to Manipulate Data Variable Data or Direct Data
- 16.4 Comparison Operators | Equal, Not-Equal, Greater, Lesser...
- 16.5 Membership Operators
- 16.6 Logical Operators
- 16.7 Test Operators
- 16.8 Operations on List or Sequence
- 16.9 Operations on Strings
- 16.10 Operations on Dictionaries or Maps
- 16.11 Points to Remember

17. Conditional Statements

- 17.1 Conditional Statement with when
- 17.2 In-Line Conditional Statement with if-else

18. Ansible Playbooks to Practice on Basic Concepts

- 18.1 Design Simple Arithmetic Calculator
- 18.2 Simple Playbook to Find the Python Version
- 18.3 Playbook to Find the Java Version
- 18.4 Playbook to Execute Any Command

19. Ansible Facts (Default Facts) and Systemd Facts

- 19.1 Working with Ansible Facts (Default Facts) Using Playbooks
- 19.2 Service or Systemd Facts with service facts Module
- 19.3 inventory_hostname and hostvars

20. Usage of become and become user

20.1 Usage of become, become_user, and become_method

21. Installing Packages | Task Reusability with import_tasks and include tasks

- 21.1 Installing Given Package Based on OS Family
- 21.2 Install a Package Based on Managed Nodes Package Managers
- 21.3 Write a Playbook to Install Any Package(s)
- 21.4 How to Reuse Ansible-Tasks with import_tasks and include_tasks

22. Handlers

22.1 How to Use Handlers and When Handlers Execute

23. Usage of Tags to Execute Required Tasks

23.1 How to Use Tags to Execute Tasks

24. Error Handling

- 24.1 Error Handling | Part-1
- 24.2 Error Handling with block and rescue and Also Grouping Multiple Tasks | Part-2

25. Ansible Logging

25.1 Capturing the Output of Ansible Ad-Hoc Commands and Playbooks into a Log File

26. <u>Usage of remote src</u>, <u>deletegate to</u>, <u>and run once Options for Ansible</u> Playbooks

- 26.1 Install and Set JAVA_HOME as Environment Variable for All Applications
- 26.2 Playbook to Set JAVA HOME for Any Open JDK with Valid URL

27. Simple Real-Time Ansible Playbook

27.1 Simple Real-Time Ansible Playbook with the Combination of Tags, Block and Handlers

28. Loops for Ansible Playbooks

- 28.1 Introduction to Loops
- 28.2 Loops to Work with List
- 28.3 Installing Multiple Packages with Loops
- 28.4 Loops to Work Dictionaries

29. Working with Templates

- 29.1 Introduction to Template Module
- 29.2 Template File with Variables, Conditions, and Loops

30. <u>Introduction to Plugin</u>

30.1 What Is an Ansible Plugin and How to List Required Plugins?

31. Working with Third-Party or Ansible Community Collections or Modules

31.1 Installing Required Collections or Required Module from Required Namespace

32. Ansible Dynamic Inventory with Plugins

- 32.1 Ansible Dynamic Inventory for AWS with Plugin
- 32.2 Ansible Dynamic Inventory and Working with Managed Nodes Using Default ec2-us

33. Ansible Roles

33.1 Introduction to Ansible Roles

34. Ansible Vault

34.1 How to Use Ansible Vault to Encrypt Secrets

35. Raw Module

35.1 Working with Managed Nodes if Managed Nodes Are Installed with Python

36. Ansible Project Setup for Real Time to Work with Servers

- 36.1 Different Cases to Work with Remote Servers or Managed Nodes
- 36.2 Directory Structure for Real-Time Project
- 36.3 Working with User ID and Password for Ansible Ad-Hoc Commands and Playbooks
- 36.4 Working with SSH Keys for Ansible Ad-Hoc Commands and Playbooks

Certifications

Accounting, Banking & Finance - Certified GST Professional

- Certified AML-KYC Compliance Officer
- Certified Business Accountant
- Certified BASEL III Professional
- Certified GAAP Accounting Standards Professional
- Certified Treasury Markets Professional

▶Big Data

- Certified Hadoop and Mapreduce Professional

➤ Cloud Computing

- Certified Cloud Computing Professional

▶ Design

- Certified Interior Designer

➤ Digital Media

- Certified Social Media Marketing Professional
- Certified Inbound Marketing Professional
- Certified Digital Marketing Professional

▶Foreign Trade

- Certified Export Import (Foreign Trade) Professional

▶ Health, Nutrition and Well Being

- Certified Fitness Instructor

➤ Hospitality

- Certified Restaurant Team Member (Hospitality)

▶Human Resources

- Certified HR Compensation Manager
- Certified HR Staffing Manager
- Certified Human Resources Manager
- Certified Performance Appraisal Manager

➤ Office Skills

- Certified Data Entry Operator
- Certified Office Administrator

➤ Project Management

- Certified Master in Project Management
- Certified Scrum Specialist

➤ Real Estate

- Certified Real Estate Consultant

≻Marketing

- Certified Marketing Manager

➤ Quality

- Certified Six Sigma Green Belt Professional
- Certified Six Sigma Black Belt Professional
- Certified TOM Professional

▶ Logistics & Supply Chain Management

- Certified International Logistics Professional
- Certified Logistics & SCM Professional
- Certified Supply Chain Management Professional

≻Legal

- Certified IPR & Legal Manager
- Certified Labour Law Analyst
- Certified Business Law Analyst
- Certified Corporate Law Analyst

➤Information Technology

- Certified Angular JS Professional
- Certified Basic Network Support Professional
- Certified Business Intelligence Professional
- Certified Core Java Developer
- Certified E-commerce Professional
- Certified IT Support Professional
- Certified PHP Professional
- Certified Selenium Professional

➤ Mobile Application Development

- Certified Android Apps Developer
- Certified iPhone Apps Developer

➤ Security

- Certified Ethical Hacking and Security Professional
- Certified Network Security Professional

▶ Management

- Certified Corporate Governance Professional
- Certified Corporate Social Responsibility Professional
- Certified Leadership Skills Professional

▶Life Skills

- Certified Business Communication Specialist
- Certified Public Relations Officer

➤ Media

- Certified Advertising Manager
- Certified Advertising Sales Professional

➤ Sales, BPO

- Certified Sales Manager
- Certified Telesales Executive

& many more job related certifications

Contact us at: V-Skills 011-473 44 723 or info@vskills.in

www.vskills.in