Azure DevOps

Certification Training

In Collaboration with **Microsoft**

IntelliPaat

Table of Contents

About the Program

Are you curious to learn both Azure and DevOps? If yes, here's an amazing training course for you. With Intellipaat's Azure with DevOps training course, you can master the concepts of both DevOps and Azure and develop formidable skills in cloud architecture, Azure Resource Manager, virtual network connectivity, Windows PowerShell, Azure administration, Git, Jenkins, Ansible, and Docker, among other concepts. In this course, you will receive material issued by Microsoft for 'Integrating On-premises Identity Infrastructure with Microsoft Azure' and 'Implementing Security in All Modules of Azure Infrastructure.'

Collaborating with Microsoft

Microsoft is one of the largest organizations in terms of inventing creative tools for various purposes. Experts from Microsoft and other top MNCs will offer you their understanding and knowledge in the field through this online certification. Moreover, you will also get deep insights into the concepts and gain hands-on experience by working on industry-specified assignments.

Benefits for students from Microsoft:

- Industry-recognized Microsoft certification

- Real-time projects and exercises

About Intellipaat

Intellipaat is one of the leading e-learning training providers with more than 600,000 learners across 55+ countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

Our courses are delivered by subject matter experts from top MNCs, and our world-class pedagogy enables learners to quickly learn difficult topics in no time. Our 24/7 technical support and career services will help them jump-start their careers in their dream companies.

Key Features

70 HRS INSTRUCTOR-LED TRAINING

108 HRS SELF-PACED TRAINING

140 HRS REAL-TIME PROJECT WORK

LIFETIME ACCESS

24/7 TECHNICAL SUPPORT

INDUSTRY-RECOGNIZED CERTIFICATION

JOB ASSISTANCE THROUGH 80+ CORPORATE TIE-UPS

FLEXIBLE SCHEDULING

Career Support

SESSIONS WITH INDUSTRY MENTORS
Attend sessions from top industry experts and get guidance on how to boost your career growth

MOCK INTERVIEWS
Mock interviews to make you prepare for cracking interviews by top employers

GUARANTEED INTERVIEWS & JOB SUPPORT
Get interviewed by our 400+ hiring partners

RESUME PREPARATION
Get assistance in creating a world-class resume from our career services team

Why take up this course?

- The demand for DevOps is at an all-time high, and more than 80% of all companies would adopt DevOps shortly – Gartner

- The average salary of a professional with DevOps and Azure skills is US$130,000 per year – Business Insider

- People who have skills in both Azure with DevOps have great demand in the marketplace – Indeed

Our online training will help you learn Azure and DevOps and hence upgrade your career.

Who should take up this course?

- Software Developers

- Cloud Professionals and Solutions Architects

- Project Managers and Technical Leads

- Learners who want to build a career in DevOps and Azure

Program Curriculum

Azure DevOps Training Course Content

- **MANAGING AZURE SUBSCRIPTION & RESOURCES**

    1.1 Managing Azure subscriptions

    1.2 Assigning administrator permissions

    1.3 Configuring Azure subscriptions

    1.4 Utilizing and consuming Azure resources

    1.5 Analyzing alerts and metrics

    1.6 Configuring diagnostic settings

    1.7 Monitoring unused resources

    1.8 Utilizing log search query functions

    1.9 Viewing alerts in Log Analytics

    1.10 Managing resource groups

    1.11 Configuring resource locks and policies

    1.12 Moving resources across resource groups

    1.13 Managed role-based access control (RBAC)

- **IMPLEMENTING & MANAGING STORAGE**

    2.1 Creating and configuring storage accounts

    2.2 Installing Azure Storage Explorer

    2.3 Monitoring activity using Log Analytics

    2.4 Deploying Azure storage replication

    2.5 Exporting from and importing into an Azure job

    2.6 Azure Data Box

    2.7 Configuring blob storage

    2.8 Azure Content Delivery Network (CDN)

    2.9 Creating Azure file share and file sync

    2.10 Implementing Azure backup

2.11 Creating Recovery Services Vault

2.12 Configuring the backup policy

- **DEPLOYING & MANAGING VIRTUAL MACHINES**

  3.1 Configuring VMs for Windows and Linux

  3.2 Configuring monitoring

  3.3 Networking, storage, deploying, and configuring scale sets

  3.4 Modifying Azure Resource Manager (ARM)

  3.5 Configuring a VHD template

  3.6 Deploying Windows and Linux VMs

  3.7 Managing Azure VMs

  3.8 Automate configuration management with PowerShell Desired State Configuration (DSC)

  3.9 Managing VM sizes

  3.10 Moving VMs from one resource to another

  3.11 Managing VM backups

  3.12 Configuring VM backups

  3.13 Performing VM restore

  3.14 Azure Site Recovery

- **CONFIGURING & MANAGING VIRTUAL NETWORKS**

  4.1 Creating connectivity between virtual networks

  4.2 Creating and configuring VNet peering

  4.3 Virtual network connectivity

  4.4 Creating virtual network gateway

  4.5 Implementing and managing virtual networking

  4.6 Configuring private and public IP addresses

  4.7 Network routes and network interfaces

  4.8 Configuring name resolution

  4.9 Configuring Azure DNS

  4.10 Configuring private and public DNS zones

  4.11 Configuring Network Security Groups (NSGs)

  4.12 Creating security rules and associating an NSG to a subnet or network

interface

4.13 Implementing Azure Load Balancer

4.14 Monitoring and troubleshooting virtual networking

4.15 Integrating an on-premises network with Azure virtual network

- **MANAGING IDENTITIES**

  5.1 Managing Azure Active Directory (AD)

  5.2 Managing Azure AD objects

  5.3 Creating users and groups

  5.4 Implementing and managing hybrid identities

  5.5 Installing and configuring Azure AD Connect and managing Azure AD Connect

  5.6 Performing bulk user updates and managing guest accounts

  5.7 Including password hash and pass-through synchronization

  5.8 Active Directory Domain Services (AD DS)

  5.9 Implementing multi-factor authentication (MFA)

- **INFRASTRUCTURE SETUP**

  6.1 Installation of DevOps tools on the cloud:

  - Git

  - Docker

  - Selenium

  - Maven

  - Jenkins

  - Puppet

  - Ansible

  - Kube

- **INTRODUCTION TO DEVOPS**

  7.1 What is software development?

  7.2 Software development life cycle

9.14 Introduction to Docker Swarm

9.15 Deploying a 2-Node cluster using Docker Swarm

- **CONFIGURATION MANAGEMENT WITH PUPPET**

    10.1 Need of configuration management

    10.2 Configuration management tools

    10.3 What is Puppet?

    10.4 Puppet architecture

    10.5 Setting up Master Slave using Puppet

    10.6 Puppet Manifests

    10.7 Puppet Modules

    10.8 Applying configuration using Puppet

    10.9 Puppet File Server

Hands-on Exercise: Setting up Master Slave, testing the connection of nodes with Puppet, creating a Manifest, deploying the Manifest on a node, creating a Module, deploying sample software on nodes using Puppet Modules and Manifests, and implementing a File Server Module on Puppet

- **CONFIGURATION MANAGEMENT WITH ANSIBLE**

11.1 What is Ansible?

11.2 Ansible vs Puppet

11.3 Ansible architecture

11.4 Setting up Master Slave using Ansible

11.5 Ansible Playbook

11.6 Ansible Roles

11.7 Applying configuration using Ansible

Hands-on Exercise: Installing Ansible, creating a Playbook using YAML, creating an Ansible Role, and using the Roles in the Playbook

- **CONTINUOUS TESTING**

12.1 What is continuous testing?

12.2 What is Maven?

12.3 Running test cases on Chromium WebDriver

12.4 What is the headless mode?

Hands-on Exercise: Using Maven to import dependencies in Eclipse, implementing a headless test using Chrome WebDriver

- **CONTINUOUS INTEGRATION USING JENKINS**

13.1 Introduction to continuous integration

13.2 Jenkins Master Slave architecture

13.3 Understanding CI/CD pipelines

13.4 Creating an end-to-end automated CI/CD pipeline

- **CONTINUOUS ORCHESTRATION USING KUBERNETES**

14.1 Introduction to Kubernetes

14.2 Docker Swarm vs Kubernetes

14.3 Kubernetes architecture

14.4 Deploying Kubernetes using kubeadms

14.5 Alternate ways of deploying Kubernetes

14.6 YAML files

14.7 Creating a deployment in Kubernetes using YAML

14.8 Services in Kubernetes

14.9 Ingress in Kubernetes

Case Study: Kubernetes architecture

- **CONTINUOUS MONITORING USING NAGIOS**

15.1 What is continuous monitoring?

15.2 Introduction to Nagios

15.3 Nagios architecture

15.4 Monitoring services in Nagios

15.5 What are NRPE plugins?

15.6 Monitoring system info using NRPE plugins

- **AZURE WITH DEVOPS**

16.1 Overview of Azure on DevOps

16.2 Introduction to Azure Boards

16.3 Understanding Azure Repos

16.4 Using Azure Pipelines

16.5 Implementing a code workflow in your build pipeline by using Git and GitHub

16.6 Running quality tests in your build pipeline by using Azure Pipelines

16.7 Managing build dependencies with Azure Artifacts

16.8 Hosting your own build agent in Azure Pipelines

16.9 Automating Docker and multi-container Kubernetes deployments with Azure Pipelines

16.10 Extending pipelines to add support for different deployment targets, such as Azure Functions

- **DEPLOYING INFRASTRUCTURE WITH TERRAFORM**

17.1 Installing Terraform – For Windows users

17.2 Installing Terraform – For Linux users

17.3 Choosing the right IDE for Terraform IAC development

17.4 Creating the first EC2 instance with Terraform

17.5 Terraform Code – First EC2 Instance

17.6 Understanding resources and providers

17.7 Destroying an infrastructure with Terraform

17.8 Destroying a specific resource

17.9 Understanding Terraform state files

17.10 Understanding desired and current states

17.11 Challenges with the current state on computed values

17.12 Terraform commands – State files

17.13 Terraform provider versioning

17.14 Types of Terraform providers

17.15 Understanding attributes and output values in Terraform

17.16 Attribute resource (Document)

17.17 Referencing cross-account resource attributes

17.18 Terraform variables

17.19 Data types for variables

17.20 Fetching data from maps and lists in a variable

17.21 Terraform format

17.22 Validating Terraform configuration files

Hands-on Exercise: Implementing remote-exec provisioners, implementing local-exec provisioners, and integrating Ansible with Terraform

- **TERRAFORM MODULES & WORKSPACES**

18.1 What is Infrastructure-as-Code?

18.2 IaC vs configuration management

18.3 Introduction to Terraform

18.4 Installing Terraform on AWS

18.5 Basic operations in Terraform

- init

- plan

- apply

- destroy

18.6 Terraform code basics

18.7 Deploying an end-to-end architecture on AWS using Terraform

Hands- on Exercise: Installing Terraform, initializing AWS Terraform Provider, creating an EC2 instance using Terraform, updating changes to EC2 using Terraform, destroying EC2 using Terraform, and deploying EC2 inside a custom VPC using Terraform

Certification

After the completion of the course, you will get certificates from Microsoft and Intellipaat.

Success Stories

Kevin K Wada

Thank you very much for your top-class service. A special mention should be made for your patience in listening to my queries and giving me a solution, which was exactly what I was looking for. I am giving you a 10 on 10!

Sampson Basoah

The Intellipaat team helped me in selecting the perfect course that suits my profile. The whole course was practically oriented, and the trainers are always ready to answer any question. I found this course to be impactful. Thank you.

Sugandha Sinha

Intellipaat's course instructors were excellent and well-versed with their concepts. Support solved all my queries within the promised 24 hours. They explained all topics and concepts well and the course material was updated and included videos, exercises too. I would highly recommend Intellipaat to those who wish to excel in the IT field.

Vishal Pentakota

The best part of this course is the series of hands-on demonstrations that the trainer performed. Not only did he explain each concept theoretically, but he also implemented all those concepts practically. Great job! A must go for beginners.

CONTACT US

INTELLIPAAT SOFTWARE SOLUTIONS PVT. LTD.

Bangalore

AMR Tech Park 3, Ground Floor, Tower B,
Hongasandra Village, Bommanahalli,
Hosur Road, Bangalore – 560068

USA

1219 E. Hillsdale Blvd. Suite 205,
Foster City, CA 94404

If you have any further queries or just want to have a conversation with us, then do call us.

IND: +91-7022374614 | US: 1-800-216-8930