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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
7.3 Traditional models for SDLC
7.4 Why DevOps?
7.5 What is DevOps?
7.6 DevOps life cycle
7.7 DevOps tools

- SOFTWARE VERSION CONTROL
  8.1 What is version control?
  8.2 Types of version control systems
  8.3 Introduction to SVN
  8.4 Introduction to Git
  8.5 Git life cycle
  8.6 Common Git commands
  8.7 Working with branches in Git
  8.8 Merging branches
  8.9 Resolving merge conflicts
  8.10 Git workflow

- CONTAINERIZATION WITH DOCKER
  9.1 Introduction to Docker
  9.2 Understanding Docker life cycle
  9.3 Components of the Docker ecosystem
  9.4 Common Docker operations
  9.5 Creating a Docker Hub account
  9.6 Committing changes in a container
  9.7 Pushing a container image to Docker Hub
  9.8 Creating custom Docker images using a Dockerfile
  9.9 What are Docker volumes?
  9.10 Deploying a multi-tier application using the Docker network
  9.11 Using Docker Compose to deploy containers
  9.12 What is container orchestration?
  9.13 Container orchestration tools
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 kubeadm
  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

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