

Azure + IoT



The Course

Azure is the most popular and most widely used cloud platform in the world. This course, Azure Training is designed to prepare administrators, engineers, architects, and consultants for designing workload deployments on the Azure platform.

Internet of Things (IoT) is presently a hot technology worldwide. Government, academia, and industry are involved in different aspects of research, implementation, and business with IoT. IoT cuts across different application domain verticals ranging from civilian to defence sectors.

The Eligibility

Passionate Technology Enthusiasts with a minimal knowledge on IT and Operating Systems.

Good to have basic knowledge on Windows, OS & IT Infrastructure. And basic programming knowledge

The Rulepaper Promise

Our training methodologies promises to give the students hands on art enterprise skills to delve deeper into the technologies from a practical and enterprise point of view. Extreme Hands-on-Lab with a self doable on the fly practical based training approaches makes transformation of the student from a no vice to a capable experienced cloud computing engineer.



The Instructor

Enterprise Architect with huge experience on Private and Public Cloud Technologies. The trainers are advisors and members of larger Cloud Computing Forums and seasoned integrators of IT Cloud Computing technologies with more than 12+ years in global large enterprise giants.

Course Contents of Azure

Module 1

Introduction to Azure

- Cloud technology overview
- What is PaaS/ SaaS/ IaaS
- Overview of Azure
- Managing Azure with the Azure portal
- Overview of Azure Resource Manager
- Azure management services
- Azure Architecture
- Development Tools
- Visual Studio tools

Module 2

Virtual Machines in Microsoft Azure

- Create and Configure Virtual Machines
- Workloads on Azure Virtual Machines
- Implement Images and Disks
- VM Networking
- Configure Disks
- Monitor Vm's

Module 3

Virtual Networks in Microsoft Azure

- Creating a Virtual Network
- Understand Point-to-Site Networks

Module 4

Implementing Storage in Microsoft Azure

- Understand Cloud Storage
- Blobs, Azure Files
- Storage Queues, Tables
- Managing Access
- Create and Manage Storage
- Configure Diagnostics and Monitoring

Module 5

Web Apps for Azure Infrastructure

- Deploy & Configure Websites
- Scaling
- Web App Deployment Models and Methods
- Web Deploy Packages
- Deployment Slots

Module 6

Cloud Services in Azure

- Overview of Cloud Services
- Cloud Service Web Roles
- Customizing Cloud Service Configurations
- Updating and Managing Cloud Service
- Cloud Service Worker Role
- Cloud Service Worker Role Processing
- Analysing Application Cloud Service Role's

Module 7

SQL Azure

- Introduction
- SQL Azure concepts
- Demonstration: Working with SQL Azure
- Data synchronization
- Limitations

Module 8

Application Hosting Services

- Service Plans
- Hosting Databases
- Hosting services on-premises vs Windows Azures

Module 9

Windows Azure Service Bus

- Introduction Windows Azure Service Bus
- MSMQ vs Azure Service Bus
- Windows Azure Service Bus Relays
- Windows Azure Service Bus Queues
- Windows Azure Service Bus Topics

Module 10

Deploying Services

- Creating and deploying Web Application packages
- Command-line tools for web deployment packages
- Deploying to Windows Azure Environments
- Continuous delivery with TFS and GIT
- Best practices for production deployment
- Local Redundancy
- Geo-Redundancy
- Read-only Geo-Redundancy

Module 11

Implementing Azure Active Directory

- Creating and managing Azure AD tenants
- Administering Active AD
- Extending on-premises Active Directory domain to Azure
- Implementing directory synchronization by using Azure AD Connect
- Configuring directory synchronization
- Federation Concepts

Module 12

Identity management and access control

- Identity Management and Access Control
- Windows Azure Access Control Service
- Azure Security Access Control
- Shared Access Signatures with Azure Service Bus and Queue Storage Services
- Shared Access Signatures Best Practices

Module 13

No SQL in Azure

- Azure Document DB
- Other No-SQL Alternatives

Module 14

Advanced Topics

- Introduction to Internet of Things - IoT
- Event Hubs

Course Contents of IoT

Module 1:

Introduction to IOT

- What is IOT?
- Basics of IOT
- Applications of IOT

Introduction to Arduino

- What is ARDUINO?
- What is Open Source Microcontroller Platform?
- Basics of Electronics
- Sensors and Actuators

Hands on Arduino

- Fundamentals of C programming
- Hello to the Microcontroller World (Your First Arduino Sketch)
- Interfacing Sensors With Arduino
- Reading From Sensors

Module 2:

Basics of Networking

- Networking Fundamentals
- Types of Networks
- Network Topologies
- Network Topologies

Arduino with Bluetooth

- Interfacing Bluetooth Module With Arduino
- Controlling Arduino With Android Device

Module 3 :

Arduino

- Interfacing With Ethernet
- Interfacing With Ethernet
- Creating program for Local host Web Server

Hello to the Online World

- What are cloud Servers
- Cloud computing and IOT
- Project 1 : Android Controlled Devices Using Arduino
- Project 2 : Internet Controlled LED'S
- Project 3: Home Automation

Module 4 :

- Protocols
- Azure with IoT integration
- Next Generation or Advanced IOT brief

The Duration

Duration of the Course is 90 hours.

The Lab Requirements

Students must bring their own laptops with basic configuration

The cost of the Training

Please send an email or contact us at enquiry@rulepaper.com to know more about the cost and next batch schedules.

The certifications

Once the training is completed the student have to enroll with Azure and IoT for getting certification and the cost is exclusive of this training . Certification is an optional or good to have feature.