

DEPLOY AND MANAGE LINUX ON AZURE

Module 1: Getting started with Azure

This module explains what Azure is, how to open an account, and deploy your first Linux instance.

Lessons

- Getting started with Azure
- Linux Virtual Machines
- Linux & Open-Source Fundamentals
- Working With Shells
- Users, Groups and Permissions
- Sudo
- Software Management
- Git
- Storage
- Networking
- Systemd
- Logging
- AD Integration
- Securing Linux with MAC

Lab 1: Module 1 Labs

- Deploy an Ubuntu VM and install Azure client
- Create an Azure Linux instance from the Cloud Shell
- Install an SSH client
- Create users and groups
- Sudo, users and permissions
- Adding storage
- Networking and checking IP address
- Installing vsftpd
- Logging
- Active Directory integration
- Configure MAC on your system

After completing this module, students will be able to:

- Deploy a Virtual Machine and create an Azure Linux instance on it
- Understand the fundamentals of Linux and Open Source Software
- Understand and put into use the tools needed to run the Azure instance efficiently and securely

Module 2: Containers

This module explains where containers come from, why they are useful, what components make up container technologies, and how different container technologies compare to each other.

Lessons

- Why Containers
- Container Components
- Container Components
- Comparing Container Technologies
- Creating and Running Docker Containers
- Orchestrating Containers
- Docker Compose
- Docker Machine
- Docker VM-Extension
- Azure Container Services
- Working with Docker on Azure

Lab 1: Module 2 Labs

- Install docker files

After completing this module, students will be able to:

- Install and work with Docker on Azure

Module 3: Deploy Linux on Azure

This module explores the many ways to deploy Linux on Azure.

Lessons

- Understanding Deployment Options
- Azure Resource Manager
- Creating Virtual Machine Images
- Azure Virtual Machine Agent
- Azure Virtual Machine Extensions
- Azure Virtual Machine Extensions Using Docker Machine

Lab 1: Module 3 Labs

- Use ARM to deploy a VM
- Verify the Azure VM Agent is running

After completing this module, students will be able to:

- Use tools to build Virtual Machines in Azure

Module 4: Automation & Orchestration

This module explains what Dev Ops is and become familiar with the tools used to automate development processes.

Lessons

- DevOps and Automation
- Cloud-init
- Ansible
- Salt
- Puppet
- Chef

Lab 1: Module 4 Labs

- Use Chef to generate a cookbook

After completing this module, students will be able to:

- Install and configure common dev ops tools.

Module 5: Monitoring and Troubleshooting

This module explains how to monitor your Azure instance and troubleshoot issues.

Lessons

- Monitor and Troubleshoot popular methods