ProTech Professional Technical Services, Inc.

MOC 55257 A Deploy and Manage Linux on Azure

Course Summary

Description

This course is intended for Microsoft professionals who are interested in deploying and managing an instance of Linux on Azure.

Objectives

After taking this course, students will be able to deploy and manage Linux in an Azure cloud environment.

Topics

- Getting started with Azure
- Containers
- Deploy Linux on Azure
- Automation & Orchestration
- Monitoring and Troubleshooting

Audience

This course is designed for Microsoft professionals who want to learn enough about Linux to manage and deploy it in Azure cloud. It also targets Linux professionals who want get familiar with Azure and how to deploy and manage Linux in Azure environments.

Prerequisites

Before attending this course, students must have:

- No previous experience with Azure is required - this course is accessible to Linux professionals as well as Microsoft professionals and therefore does not have specific requirements regarding Microsoft knowledge.
- Important Requirement: Prior to start of the class each student must have an Azure account set up in the Western US region.

Duration

Four Days

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Course Outline

I. ***Getting started with Azure***
- A. This module explains what Azure is, how to open an account, and deploy your first Linux stance
- B. Getting started with Azure
- C. Linux Virtual Machines
- D. Linux & Open-Source Fundamentals
- E. Working With Shells
- F. Users, Groups and Permissions
- G. Sudo
- H. Software Management
- I. Git
- J. Storage
- K. Networking
- L. Systemd
- M. Logging
- N. AD Integration
- O. Securing Linux with MAC

Lab 1
- 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

II. ***Containers***
- A. 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
- B. Why Containers
- C. Container Components
- D. Comparing Container Technologies
- E. Creating and Running Docker Containers
- F. Orchestrating Containers
- G. Docker Compose
- H. Docker Machine
- I. Docker VM-Extension
- J. Azure Container Services
- K. Working with Docker on Azure

Lab 2
- Install docker files

III. ***Deploy Linux on Azure***
- A. This module explores the many ways to deploy Linux on Azure
- B. Understanding Deployment Options
- C. Azure Resource Manager
- D. Creating Virtual Machine Images
- E. Azure Virtual Machine Agent
- F. Azure Virtual Machine Extensions
- G. Azure Virtual Machine Extensions Using Docker Machine

Lab 3
- Use ARM to deploy a VM
- Verify the Azure VM Agent is running

IV. ***Automation & Orchestration***
- A. This module explains what “Dev Ops” is and become familiar with the tools used to automate development processes.Lessons
- B. DevOps and Automation
- C. Cloud-init
- D. Ansible
- E. Salt
- F. Puppet
- G. Chef

Lab 4
- Use Chef to generate a cookbook

V. ***Monitoring and Troubleshooting***
- A. This module explains how to monitor your Azure instance and troubleshoot issues.Lessons
- B. Monitor and Troubleshoot – popular methods