

Configuration Management for Containerized Delivery

Modality: On Demand

Duration: 16 Hours

About this course:

Traditionally, local machines have been running containers since long. But the fact is that containers are also capable of running on production environments. Provided this feature, it can be of a lot more benefit in terms of boosting consistency during the migration of software to production.

Usually the cluster orchestration software is responsible for managing the group of machines on production environments that are used for the deployment of containers. After the commencement of this course, candidates will learn how Azure Service Fabric (ASF) and Azure Container Services (ACS) are used in executing the development, configuration and deployment of these containerized services.

Only when you will develop the proper method of taking up management and operations of these production environments, running container clusters perfectly will not be a problem for you and this is exactly the core objective of this course too. Moreover, this course will also develop your understanding about configuring the features of your clusters. With these skills, you will become familiar about the performance activity of your application in the production stage. You will also learn the operational techniques of scaling without going through the downtime issues.

In this course, the Visual Studio Team Services (VSTS) will be explained in an extensive manner as its' infrastructure is based on continuous delivery system and will be of assistance for you while deploying complete container clusters. You will also learn about various tools similar to it.

An average salary per year, of a cloud administrator is estimated to be \$72,762.

Course Objective:

After successful completion of this course, candidate will become capable of executing tasks and will have gained knowledge of the systems below:

- Creating container images.
- Using Docket and other tools for the management of multiple containers.
- Using the production clusters to host containers.
- Learning the usage of various orchestrators of Azure Container Services (ACS) like Docker Swarm, Kubernetes and DC/OS for the deployment of containerized applications.
- Learning to perform scale up operations, data management and monitoring cluster health and applications by taking initiatives.
- Creating, managing and monitoring a Service Fabric Cluster.
- Using Best practices for Azure hosted cluster management.
- Deploying containerized applications to available cluster containers with the help of continuous delivery pipelines.

- Management of clusters in production environments.

Audience:

The following professionals are the best candidates for this course:

- IT System Administrators.

Prerequisites:

- Basic fundamentals of Microsoft Azure.
- Knowledge of Azure Resource Manager (ARM) and using templates.
- Knowledge of application development as well as the deployment process.

Course Outline:

Containerization

- Module 1 Learning Objectives
- What is Containerization
- Containers and Docker
- Linux and Windows Containers
- Where can you host containers?
- DevOps and Containers
- Continuous Delivery Pipeline and Containers
- Labs
- Module 1 Review Questions
- Module Summary

Azure Container Services

- Module 2 Learning Objectives
- Introduction to Azure Container Services (ACS)
- Creating and configuring ACS clusters
- Running Multiple Containers
- Configuring monitoring and logging
- Scaling
- Deployment
- Labs
- Review Questions
- Module 2 Review Questions
- Module 2 Summary

Service Fabric

- Module 3 Learning Objectives
- Introduction to Azure Service Fabric
- Creating a Cluster

- Programming Models and Containers
- Configure monitoring and logging
- Scaling
- Deployment
- API Management Integration
- Dealing with Data
- Labs
- Module 3 Review Questions
- Module 3 Summary

Cross cutting concerns

- Module 4 Learning Objectives
- Introduction
- Patch Management
- Security Concerns
- Design for Failure
- Labs
- Module 4 Review Questions
- Module 4 Summary

Final Exam

- Graded Final Exam?