Docker Apache Mesos And DCOS: Run and Manage Cloud Datacenter

Modality: On Demand

Duration: 4 Hours

About this course:

In the 21st century, doing business implies embracing a globe where software truly controls everything, from web-based social networking to banking frameworks and from TVs to autos. In that time, Software improvement has seen a big change over the recent decades. From the earliest starting point of the computing time in the 1960s up to the late 1990s, the software was worked by moderately little groups. These groups utilized big solid stacks of software to make moderately smaller and simpler applications that were utilized by 1 to a few of many individuals. On a central network server, these applications were deployed that the user associated with by means of their terminals and utilized the apps.

The era of the present world is about ever-increasing adoption and the ubiquitous connectivity of mobile computing. To take into account these requests - current web applications and mobile applications are reaching a worldwide scale and billions of users. These application and web applications are made by bigger groups which are distributed geographically. They made those big applications by stitching together an assortment of APIs, services, or microservices.

These services are independent of one another and utilize a collection of stacks. The services work around clusters spanning thousands or a huge number of nodes or servers. Furthermore, the customers utilize these applications over the public internet or over the cloud using their tablet, mobile and desktop devices.

Management, deployment, and operationalizing these big complex infrastructures is a daunting job. Containerization of the services and applications assists with simplifying these works. However, even containers leave a big part of administration works for deploying the most recent application code, mapping the administration endpoints, upgrading the servers, and so on to the DevOps engineers and the user.

Won't it be incredible if we had the capability to combine and aggregate the complete power of computing accessible to us in our datacenter and treat it as one big PC? Imagine a scenario in which we had a smart operating framework that could deal with our whole servers like Linux or macOS or Windows can deal with our PCs. Whether two virtual nodes or 10,000 of them are managing by us- Wouldn't it be decent just to instruct our variety of datacenter or our servers – hello datacenter I need to run a database and a web application? Here is the code – and here are the orders to drive these applications – please find out the nodes that can run these applications; deploy them and run them. Incidentally, if any of those nodes are non-functional – it would be ideal if you ensure you move my application to another solid node so the end-clients don't face any interruption.

At that point as per the need for a specific application, a scheduler can progressively distribute assets to the application. This will make the entire framework substantially more beneficial. We will have the option to let free up assets and drive the use up. This strategy has a wide range of advantages for

less administrative overhead and from fewer expenses to more uptime of the application.

This is actually what Apache Mesos, Docker, and DC/OS give. Docker is an open-source engine that can assist you with automating the application's deployment inside software containers. Is was introduced in March 2013 and has been getting prominence from that point forward. It has downloads around more than 100 million, and more than 75000 applications are functioning as dockerized applications – that is a LOT! An open-source cluster manager, Apache Mesos that gives productive resource isolation and sharing across dispersed structures or applications. Mesosphere DC/OS is a business-grade datacenter-scale operating framework, offering a single stage for running big data, containers, and distributed applications on the field.

DC/OS is created on the core Apache Mesos and gives more up to date innovation including the Marathon application stage, local container- orchestration, intuitive UIs and a whole lot more. Experience and information about Apache Mesos, Docker, and DC/OS could be truly significant for your vocation. The most recent figures and stats show some amazing numbers like occupations requiring these ranges of abilities pay higher than a large portion of the jobs posted on open job boards within the US and yearly pay rates for experts could be as high as $120,000. That is the specific motivation behind why you should register in this course and take your profession to the big level.

The normal pay for Cloud Engineer is $95,000 annually.

Course Objective:

- Students will explore apps containerization, the plethora of benefits and leverages offered by Docker and containers.
- You will be able to employ DC/OS to manage your data centers better with the prospect of making deployment of software faster and increase user reach.
- Learners will be able to install and run Docker instances and run containerized apps on it.
- You will be capable to install new packages and services to deploy complex applications inside your cluster of DC/OS.
- Students will discover running services and applications within DC/OS in a load-balanced manner.
- Learners will learn about operational utilities and administrative tasks that can utilize to manage their clusters of DC/OS.

Audience:

This course is designed for:

- Software engineers
- Cloud engineers
- IT administrators
- Software and IT architects
- System designers
- CIOs and CTOs
- Any leader of technology want to utilize cloud computing in their organization

Prerequisites:

- Basic understanding of system setup, networking, Linux OS commands, etc.
- Basic knowledge about cloud computing
- Basic information about virtual machines

Course Outline:

- Welcome and Introduction
- Containerization of apps
- Apache Mesosphere and DC/OS – Introduction
- DC/OS: Installation, Administration, and Operations
- Deploying Real World Apps on DC/OS
- Conclusion