vmware EDUCATION SERVICES

VMware Virtualization Essentials

Course Overview

This five-day classroom course is designed for university students, university graduates, and those looking for a career change in the IT industry. This course provides you with a strong understanding of VMware virtualization concepts and VMware virtual machine features in VMware vSphere® 6.0. This course will give you an understanding of VMware data center, cloud, and desktop products. By combining lecture and hands-on lab sessions, this course will help you gain the skills required to work effectively with VMware virtual machines.

After completing this course, you may enroll in advanced vSphere courses. For advanced vSphere course options, go to http://www.vmware.com/education.

Course Objectives

By the end of the course, you should be able to decide the career path that you want to pursue, whether a sales role, a pre-sales technical role, or a fully technical role. In addition, you should be able to meet the following objectives:

- Describe virtualization, virtual machines, and vSphere components
- Describe the concepts of server, network, storage, and desktop virtualization
- Deploy, configure, clone, and manage virtual machines
- Use VMware vCenter Server® to monitor virtual machine resource usage
- Use VMware vSphere® vApps™ to bundle and manage multiple interoperating virtual machines and software applications
- Use VMware vSphere® vMotion® and VMware vSphere® Storage vMotion® to migrate virtual machines
- Use VMware vSphere® Distributed Resource Scheduler™ and VMware vSphere® High Availability to optimize the performance of your vSphere virtual environment
- Identify the features of VMware cloud products

Target Audience

University students, university graduates, and those looking for a career change into IT

Prerequisites

Basic IT fundamentals of compute, memory, storage, and network

Course Delivery Options

- Classroom
- Live Online
- Onsite

Product Alignment

- vSphere 6.0

Course Modules

1 Course Introduction

- Review course goals
- Review course objectives
- Review the course outline
- Find additional resources after this course

2 Data Center Fundamentals

- Identify the characteristics of servers
- Specify how to access servers remotely
- Describe server redundancy and how it benefits data centers
- Describe the characteristics of storage, including RAID levels, local versus shared storage, and SAN versus NAS storage
- Describe VMware virtual storage concepts
- Identify the basic characteristics and components of networks
- Define database terminologies
- Describe the fundamental components and concepts behind data center virtualization

3 VMware Virtual Infrastructure Overview

- Compare the components and concepts of traditional architecture and virtual architecture
- Identify the benefits of virtual architecture
- Describe the VMware virtualization infrastructure
- Describe server virtualization concepts
- Identify vSphere components, including vCenter Server, VMware ESXi™, and VMware vSphere® Client™
- View and describe virtual network and storage components
- Describe inventory objects managed by vSphere
- Describe the main features of vCenter Server

4 Using vSphere Web Client

- Identify the differences between the vSphere Client and VMware vSphere® Web Client interfaces
- Access, navigate, and customize vSphere Web Client
- Use vSphere Web Client to monitor and manage vSphere objects
- Perform searches in vSphere Web Client
- Describe how roles and permissions can be assigned to users and user groups through vSphere Web Client

5 Creating and Managing Virtual Machines

- Create and manage virtual machines
- Install a guest operating system and VMware Tools™
- Describe how to use clones and templates to manage virtual machines
- Describe the importance of content libraries
- Configure virtual machines
- Use snapshots to manage virtual machines
- Describe how raw device mapping enables a virtual machine to directly access and use a storage device
- Describe virtual machine resource monitoring concepts
- Use vCenter Server performance graphs and alarms to monitor virtual machine resource usage
- Describe and monitor tasks
- Describe, monitor, and manage events
- Describe, monitor, manage, and acknowledge alarms

6 Allocating Resources to Business Functions in vSphere

- Describe CPU and memory resource management techniques used in ESXi
- Use virtual machine resource controls to allocate CPU and memory resources
- Use resources pools to hierarchically allocate CPU and memory resources

7 Managing Multitiered Applications Using vSphere vApps

- Describe a vApp
- Create a vApp
- Add objects to a vApp
- Edit vApp settings
- Clone a vApp
- Manage the power operations of a vApp

8 Migrating Virtual Machines in vSphere

- Describe the operation and benefits of vSphere vMotion and vSphere Storage vMotion
- Use vSphere vMotion to migrate a live virtual machine
- Use vSphere Storage vMotion to migrate a live virtual machine's data

9 Distributing Virtual Machine Workloads in vSphere

- Describe the operation and scalability benefits of vSphere DRS
- Configure a vSphere DRS cluster and resource pools
- Describe the operation and scalability benefits of VMware vSphere® Storage DRS™
- Describe the operation and cost benefits of VMware vSphere® Distributed Power Management™

10 High Availability and Fault Tolerance

- Describe the operation and availability benefits of vSphere HA
- Configure a vSphere HA cluster
- Describe the operation and availability benefits of VMware vSphere® Fault Tolerance
- Configure a virtual machine for fault tolerance

11 Extending vSphere Capabilities

- Explain how VMware products and features work together to reduce the costs and improve the efficiency, availability, flexibility, and manageability of your data center

12 VMware Cloud Fundamentals

- Describe the concepts of cloud computing
- Define the types of cloud computing
- Differentiate between SaaS, PaaS, and IaaS
- Explain common IT challenges faced by organizations using cloud computing
- Describe VMware products that are part of the VMware cloud solution
- Identify solutions for cloud computing challenges

Contact

If you have questions or need help registering for this course, click here.

VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com

VMware SKU: EDU-VVE-OE Rev. 8/2016