HPE Compute Solutions, Rev. 25.21

Kód kurzu: 0001174342

This course teaches you about designing, proposing, and potentially managing HPE Private Cloud AI solutions and other HPE compute solutions for AI. You will learn how to monitor, manage, and maintain HPE compute and AI solutions using various services in HPE GreenLake Cloud. This five-day training includes lectures and lab activities in a ratio of approximately 50/50 (lectures/activities). Hands-on lab exercises are performed using resources hosted by the HPE remote lab team.

Pro koho je kurz určen

Typical candidates for this course are professionals who interpret customer requirements to design, install, configure, and manage HPE compute solutions.

Roles that will benefit from this course are:

- Presales Engineers
- Solutions Integrators
- Systems Engineers
- Technical Consultants

Co Vás naučíme

After you successfully complete this course, expect to be able to:

- Understand fundamental AI concepts
- Assess customers' AI maturity, workloads, and use cases
- Position HPE AI solutions based on customers' AI maturity, workloads, and use cases
- Describe the infrastructure components of HPE Private Cloud AI with NVIDIA
- Explain the benefits of HPE and NVIDIA infrastructure
- Explain how this infrastructure meets AI workload requirements
- Describe the software components of HPE Private Cloud AI with NVIDIA
- Explain the benefits of HPE and NVIDIA software components
- Size HPE Private Cloud AI with NVIDIA solutions using appropriate customer information and HPE tools
- Configure and quote HPE Private Cloud AI solutions using appropriate HPE tools
- Determine which services to attach to HPE Private Cloud AI
- Understand the delineation of responsibilities for HPE Private Cloud AI between HPE and the customer (or partner)
- Know the purpose of a Customer Intent Document (CID) as well as when and how to complete one
- Meet changing customer requirements (such as for software updates and expansions) for HPE Private Cloud AI
- Identify and use the appropriate HPE GreenLake cloud services to address common customer requests (such as addressing performance issues or updating firmware)
- Use HPE Private Cloud AI to demo a simple AI use case
- Given a scenario, design an edge inferencing solution (including selecting the correct servers, GPUs, and networking)
- Understand best practices for deploying HPE ProLiant servers
- Identify and use the appropriate HPE management solutions to manage HPE compute solutions
- Onboard HPE servers in HPE Compute Ops Management
- Use HPE Compute Ops Management to manage servers and to address common customer requests (such as updating firmware)
- Given a scenario, design storage for HPE compute solutions
- Describe the features and benefits of HPE VM Essentials
- Design and deploy an HPE VM Essentials environment
- Given a scenario, optimize performance of HPE compute and AI solutions
- Given a scenario, troubleshoot HPE compute and AI solutions

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This course covers a wide range of HPE Compute solutions including:

- Full coverage of HPE Synergy platform including HPE OneView
- Introduction to HPE Primera in the compute context (for example, boot from SAN)
- Introduction of HPE Superdome Flex and Superdome Flex 280 technologies
- Automation with PowerShell scripting
- Full integration of HPE OneView for VMware vCenter Server and HPE Storage Integration Pack for VMware vCenter
- Basics of virtualization with HPE OneView integration

Osnova kurzu

AI overview

- Understand Artificial Intelligence (AI), including concepts and technologies such as:
- Relationship between AI, Machine Learning (ML), and Deep Learning (DL)
- Common ML and DL tasks and use cases
- Artificial neural networks (ANNs) and Convolutional Neural Networks (CNNs)
- Explore the lifecycle for building ML/DL applications and the ecosystem of tools customers use across this lifecycle
- Examine some the challenges organization face at each stage of the ML/DL lifecycle

Understand customers' AI requirements

- Assess customers' requirements
- Learn characteristics of AI maturity levels: Beginner, Early AI user, AI pro, and Deployers of AI at scale
- Understand who the stakeholders are in AI projects and the different challenges they face
- Position HPE and NVIDIA solutions, including
- HPE Private Cloud AI with NVIDIA
- HPE ProLiant DL servers
- HPE HPC solutions

HPE Private Cloud AI with NVIDIA infrastructure

- Describe the infrastructure components of HPE Private Cloud AI
- Closely examine NVIDIA AI-optimized GPUs
- Learn about HVIDIA GPU and GPU memory architecture and terminology
- Examine Ada Lovelace, Hopper, Thread Block Cluster, and Grace Hopper GPU architectures as well as which NVIDIA GPUs make use of them and how
- Explore HPE servers optimized for AI, including
- HPE ProLiant Compute DL380a Gen11
- HPE ProLiant Compute DL380a Gen12
- HPE ProLiant Compute DL384 Gen12
- Understand why HPE GreenLake for File Storage is the ideal storage foundation for AI workloads
- Learn about the HPE Alletra Storage MP hardware and HPE GreenLake for File Storage software on which HPE GreenLake for File Storage is built
- Understand data's journey to the GPU and to storage
- Learn more about the functionality and benefits of several HPE and HPE Aruba Networking switches, including these:
- HPE Aruba Networking CX 8325, which HPE GreenLake for File Storage uses for standard density configurations
- HPE SN4000M Series switches, which HPE GreenLake for File Storage uses for high density configurations

HPE Private Cloud AI with NVIDIA software

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- Understand the functionality and benefits of HPE AI Essentials software
- Explore the features and benefits of NVIDIA AI Enterprise

Designing and deploying HPE Private Cloud AI with NVIDIA

- Understand the differences between the configuration sizes available for HPE Private Cloud AI with NVIDIA
- Learn how to use HPE Intelligent Configurator to size a workload
- Learn how to configure and quote HPE Private Cloud AI solutions
- Understand how HPE deploys HPE Private Cloud AI solutions
- Learn what aspects of maintaining HPE Private Cloud AI are the responsibility of the customer (or the partner on the customer's behalf)

Managing HPE Private Cloud AI

- Understand the HPE Private Cloud AI management framework
- Understand the role of Cloud Administrators in managing HPE Private Cloud AI hardware and software
- Learn about some of the tasks that HPE Private Cloud AI Administrators can perform
- Look at what AI users can do on HPE Private Cloud AI
- Learn about the options available for demonstrating HPE Private Cloud AI's functionality

Manage HPE compute solutions

- Review the management options for HPE servers
- Examine the capabilities of HPE iLO
- Learn some basics about HPE Synergy

Design and deploy edge inferencing solutions

- Learn about the compute solutions that HPE offers for edge inferencing and the use cases for which each is well-suited
- Learn about the networking solutions that HPE offers for edge inferencing, including HPE InfiniBand switches and HPE Aruba Networking CX switches

Manage HPE compute solutions in HPE GreenLake cloud

- Explore the capabilities of HPE Compute Ops Management
- Learn how to monitor servers (and receive insights into their health, security, and sustainability) using HPE Compute Ops Management
- Learn how to use HPE Compute Ops Management to deploy images to managed servers
- Learn how to manage HPE servers' firmware with HPE Compute Ops Management
- Learn how HPE Compute Ops Management integrates with other HPE management solutions as well as with third-party management solutions

Design storage for HPE compute solutions

- Review shared storage options for HPE servers, including block, file, and object storage options
- Overview the HPE block storage portfolio
- Overview the HPE file storage portfolio
- Overview the HPE object storage portfolio
- Learn about connecting HPE servers to block storage and how to use HPE Compute Ops Management (integrated with HPE Data Ops Manager) to manage external storage on HPE servers

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HPE VM Essentials

- Overview HPE VM Essentials, HPE's virtualization platform
- Understand the storage requirements for HPE VM Essentials
- Understand the basic networking recommendations for HPE VM Essentials
- Learn about designing VM clusters with HPE VM Essentials
- Overview VMware integration with HPE VM Essentials

Support HPE compute solutions

- Review HPE support services
- Learn about using HPE GreenLake cloud to monitor and troubleshoot customer environments
- Learn about the benefits of leveraging OpsRamp in HPE GreenLake cloud
- Look at some of the options available in HPE Private Cloud AI for monitoring and troubleshooting this solution

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