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NEW QUESTION: 1
Which of the following statements about the commandlxc-checkpointis correct?
A. It creates a clone of a container.
B. It doubles the memory consumption of the container.
C. It only works on stopped containers.
D. It writes the status of the container to a file.
E. It creates a container image based on an existing container.
Answer: D (LEAVE A REPLY)
Explanation
The command lxc-checkpoint is used to checkpoint and restore containers. Checkpointing a container means saving the state of the container, including its memory, processes, file descriptors, and network connections, to a file or a directory. Restoring a container means resuming the container from the saved state, as if it was never stopped. Checkpointing and restoring containers can be useful for various purposes, such as live migration, backup, debugging, or snapshotting. The command lxc-checkpoint has the following syntax:
lxc-checkpoint {-n name} {-D path} [-r] [-s] [-v] [-d] [-F]
The options are:
* -n name: Specify the name of the container to checkpoint or restore.
* -D path: Specify the path to the file or directory where the checkpoint data is dumped or restored.
* -r, --restore: Restore the checkpoint for the container, instead of dumping it. This option is incompatible with -s.
* -s, --stop: Optionally stop the container after dumping. This option is incompatible with -r.
* -v, --verbose: Enable verbose criu logging. Only available when providing -r.
* -d, --daemon: Restore the container in the background (this is the default). Only available when providing -r.

* -F, --foreground: Restore the container in the foreground. Only available when providing -r.
The command lxc-checkpoint uses the CRIU (Checkpoint/Restore In Userspace) tool to perform the checkpoint and restore operations. CRIU is a software that can freeze a running application (or part of it) and checkpoint it to a hard drive as a collection of files. It can then use the files to restore and run the application from the point it was frozen at1. The other statements about the command lxc-checkpoint are not correct. It does not create a clone or an image of a container, nor does it double the memory consumptionof the container. It can work on both running and stopped containers, depending on the options provided. References:
* Linux Containers - LXC - Manpages - lxc-checkpoint.12
* lxc-checkpoint(1) - Linux manual page - man7.org3
* CRIU4

NEW QUESTION: 2
FILL BLANK
What is the default path to the Docker daemon configuration file on Linux? (Specify the full name of the file,Including path.)
Answer:
/etc/docker/daemon.json
Explanation
The default path to the Docker daemon configuration file on Linux
is /etc/docker/daemon.json. This file is a JSON file that contains the settings and options for the Docker daemon, which is the service that runs on the host operating system and manages the containers, images, networks, and other Docker resources. The /etc/docker/daemon.json file does not exist by default, but it can be created by the user to customize the Docker daemon behavior. The file can also be specified by using the --config-file flag when starting the Docker daemon. The file must be a valid JSON object and follow the syntax and structure of the dockerd reference docs12. References:
* Docker daemon configuration file - Medium3
* Docker daemon configuration overview | Docker Docs4
* docker daemon | Docker Docs5

NEW QUESTION: 3
What is the purpose ofcloud-init?
A. Replace common Linux inic systems, such as systemd or SysV init.
B. Assign an laaS instance to a specific computing node within a cloud.
C. Standardize the configuration of infrastructure services, such as load balancers or virtual firewalls in a cloud.
D. Orchestrate the creation and start of multiple related laaS instances.
E. Prepare the generic image of an laaS instance to fit a specific instance's configuration.

Answer: E (LEAVE A REPLY)

Explanation

Cloud-init is a tool that processes configurations and runs through five stages during the initial boot of Linux VMs in a cloud. It allows users to customize a Linux VM as it boots for the first time, by applying user data to the instance. User data can include scripts, commands, packages, files, users, groups, SSH keys, and more.

Cloud-init can also interact with various cloud platforms and services, such as Azure, AWS, OpenStack, and others. The purpose of cloud-init is to prepare the generic image of an IaaS instance to fit a specific instance's configuration, such as hostname, network, security, and application settings. References:

* Cloud-init - The standard for customising cloud instances
* Understanding cloud-init - Azure Virtual Machines
* Tutorial - Customize a Linux VM with cloud-init in Azure - Azure Virtual Machines

NEW QUESTION: 4

Which of the following statements are true regarding resource management for full virtualization? (Choose two.)

A. The hygervisor may provide fine-grained limits to internal elements of the guest operating system such as the number of processes.

B. The hypervisor provides each virtual machine with hardware of a defined capacity that limits the resources of the virtual machine.

C. Full virtualization cannot pose any limits to virtual machines and always assigns the host system's resources in a first-come-first-serve manner.

D. All processes created within the virtual machines are transparently and equally scheduled in the host system for CPU and I/O usage.

E. It is up to the virtual machine to use its assigned hardware resources and create, for example, an arbitrary amount of network sockets.

Answer: B,E (LEAVE A REPLY)

Explanation

Resource management for full virtualization is the process of allocating and controlling the physical resources of the host system to the virtual machines running on it. The hypervisor is the software layer that performs this task, by providing each virtual machine with a virtual hardware of a defined capacity that limits the resources of the virtual machine. For example, the hypervisor can specify how many virtual CPUs, how much memory, and how much disk space each virtual machine can use. The hypervisor can also enforce resource isolation and prioritization among the virtual machines, to ensure that they do not interfere with each other or consume more resources than they are allowed to. The hypervisor cannot provide fine-grained limits to internal elements of the guest operating system, such as the number of processes, because the hypervisor does not have access to the internal state of the guest operating system. The guest operating system is responsible for managing its own resources within the virtual hardware provided by the hypervisor. For

example, the guest operating system can create an arbitrary amount of network sockets, as long as it does not exceed the network bandwidth allocated by the hypervisor. Full virtualization can pose limits to virtual machines, and does not always assign the host system's resources in a first-come-first-serve manner. The hypervisor can use various resource management techniques, such as reservation, limit, share, weight, and quota, to allocate and control the resources of the virtual machines. The hypervisor can also use resource scheduling algorithms, such as round-robin, fair-share, or priority-based, to distribute the resources among the virtual machines according to their needs and preferences. All processes created within the virtual machines are not transparently and equally scheduled in the host system for CPU and I/O usage. The hypervisor can use different scheduling policies, such as proportional-share, co-scheduling, or gang scheduling, to schedule the virtual CPUs of the virtual machines on the physical CPUs of the host system. The hypervisor can alsouse different I/O scheduling algorithms, such as deadline, anticipatory, or completely fair queuing, to schedule the I/O requests of the virtual machines on the physical I/O devices of the host system. The hypervisor can also use different resource accounting and monitoring mechanisms, such as cgroups, perf, or sar, to measure and report the resource consumption and performance of the virtual machines.
References:
* Oracle VM VirtualBox: Features Overview
* Resource Management as an Enabling Technology for Virtualization - Oracle
* Introduction to virtualization and resource management in IaaS | Cloud Native Computing Foundation

NEW QUESTION: 5
Which of the following kinds of data cancloud-initprocess directly from user-data? (Choose three.)
A. Shell scripts to execute
B. Lists of URLs to import
C. ISO images to boot from
D. cloud-config declarations in YAML
E. Base64-encoded binary files to execute
Answer: A,B,D (LEAVE A REPLY)
Explanation
Cloud-init is a tool that allows users to customize the configuration and behavior of cloud instances during the boot process. Cloud-init can process different kinds of data that are passed to the instance via user-data, which is a mechanism provided by various cloud providers to inject data into the instance. Among the kinds of data that cloud-init can process directly from user-data are:
* Shell scripts to execute: Cloud-init can execute user-data that is formatted as a shell script, starting with the #!/bin/sh or #!/bin/bash shebang. The script can contain any

commands that are valid in the shell environment of the instance. The script is executed as the root user during the boot process12.
* Lists of URLs to import: Cloud-init can import user-data that is formatted as a list of URLs, separated by newlines. The URLs can point to any valid data source that cloud-init supports, such as shell scripts, cloud-config files, or include files. The URLs are fetched and processed by cloud-init in the order they appear in the list13.
* cloud-config declarations in YAML: Cloud-init can process user-data that is formatted as a cloud-config file, which is a YAML document that contains declarations for various cloud-init modules. The cloud-config file can specify various aspects of the instance configuration, such as hostname, users, packages, commands, services, and more. The cloud-config file must start with the #cloud-config header14.
The other kinds of data listed in the question are not directly processed by cloud-init from user-data. They are either not supported, not recommended, or require additional steps to be processed. These kinds of data are:
* ISO images to boot from: Cloud-init does not support booting from ISO images that are passed as user-data. ISO images are typically used to install an operating system on a physical or virtual machine, not to customize an existing cloud instance. To boot from an ISO image, the user would need to attach it as a secondary disk to the instance and configure the boot order accordingly5.
* Base64-encoded binary files to execute: Cloud-init does not recommend passing binary files as user-data, as they may not be compatible with the instance's architecture or operating system.
Base64-encoding does not change this fact, as it only converts the binary data into ASCII characters. To execute a binary file, the user would need to decode it and make it executable on the instance6.
References:
* User-Data Formats - cloud-init 22.1 documentation
* User-Data Scripts
* Include File
* Cloud Config
* How to Boot From ISO Image File Directly in Windows
* How to run a binary file as a command in the terminal?.

NEW QUESTION: 6
Which of the following statements are true regarding VirtualBox?
A. It is a hypervisor designed as a special kernel that is booted before the first regular operating system starts.
B. It only supports Linux as a guest operating system and cannot run Windows inside a virtual machine.
C. It requires dedicated shared storage, as it cannot store virtual machine disk images locally on block devices of the virtualization host.

D. It provides both a graphical user interface and command line tools to administer virtual machines.
E. It is available for Linux only and requires the source code of the currently running Linux kernel to be available.
Answer: D (LEAVE A REPLY)
Explanation
VirtualBox is a hosted hypervisor, which means it runs as an application on top of an existing operating system, not as a special kernel that is booted before the first regular operating system starts1. VirtualBox supports a large number of guest operating systems, including Windows, Linux, Solaris, OS/2, and OpenBSD1. VirtualBox does not require dedicated shared storage, as it can store virtual machine disk images locally on block devices of the virtualization host, or on network shares, or on iSCSI targets1. VirtualBox provides both a graphical user interface (GUI) and command line tools (VBoxManage) to administer virtual machines1. VirtualBox is available for Windows, Linux, macOS, and Solaris hosts1, and does not require the source code of the currently running Linux kernel to be available. References:
* Oracle VM VirtualBox: Features Overview

NEW QUESTION: 7
FILL BLANK
What LXC command starts a new process within a running LXC container? (Specify ONLY the command without any path or parameters.)
Answer:
lxc-attach
Explanation
The lxc-attach command allows the user to start a new process within a running LXC container12. It takes the name of the container as an argument and optionally a command to execute inside the container. If no command is specified, it creates a new shell inside the container1. For example, to list all the files in the home directory of a container named myContainer, one can use:
lxc-attach -n myContainer - ls -lh /home
References:
* 1: Executing a command inside a running LXC - Unix & Linux Stack Exchange

NEW QUESTION: 8
A clone of a previously used virtual machine should be created. All VM specific information, such as user accounts, shell histories and SSH host keys should be removed from the cloned disk image. Which of the following tools can perform these tasks?
A. virc-reset
B. virt-sparsi
C. virt-rescue

D. virt-svspre
E. sysprep
F. vire-wipe
Answer: (SHOW ANSWER)
Explanation
Sysprep is a tool that removes all your personal account and security information, and then prepares the machine to be used as an image. It is supported by Windows and some Linux distributions. It can also remove drivers and other machine-specific settings. Sysprep is required when creating a managed image outside of a gallery in Azure
https://learn.microsoft.com/en-us/azure/virtual-machines/generalize

NEW QUESTION: 9
Which of the following network interface types are valid in an LXD container configuration? (Choose three.)
A. ipsec
B. macvlan
C. bridged
D. physical
E. wifi
Answer: B,C,D (LEAVE A REPLY)
Explanation
LXD supports the following network interface types in an LXD container configuration1:
* macvlan: Creates a virtual interface on the host with a unique MAC address and attaches it to an existing physical interface. This allows the container to have direct access to the physical network, but prevents communication with the host and other containers on the same host2.
* bridged: Connects the container to an existing bridge interface on the host. This allows the container to communicate with the host and other containers on the same bridge, as well as the external network if the bridge is connected to a physical interface3.
* physical: Passes an existing physical interface on the host to the container. This allows the container to have exclusive access to the physical network, but removes the interface from the host4.
The other network interface types, ipsec and wifi, are not valid in an LXD container configuration. Ipsec is a protocol for secure communication over IP networks, not a network interface type. Wifi is a wireless technology for connecting devices to a network, not a network interface type. References:
* About networking - Canonical LXD documentation
* Macvlan network - Canonical LXD documentation
* Bridge network - Canonical LXD documentation
* Physical network - Canonical LXD documentation

NEW QUESTION: 10
Which of the following commands executes a command in a running LXC container?
A. lxc-accach
B. lxc-batch
C. lxc-run
D. lxc-enter
E. lxc-eval
Answer: A (LEAVE A REPLY)
Explanation
The command lxc-attach is used to execute a command in a running LXC container. It allows the user to start a process inside the container and attach to its standard input, output, and error streams1. For example, the command lxc-attach -n mycontainer -- ls -lh /home will list all the files and directories in the /home directory of the container named mycontainer1. The other options are not valid LXC commands. The command lxc-batch does not exist. The command lxc-run is an alias for lxc-start, which is used to start a container, not to execute a command in it2. The command lxc-enter is also an alias for lxc-attach, but it is deprecated and should not be used3. The command lxc-eval is also not a valid LXC command. References:
* 1: Executing a command inside a running LXC - Unix & Linux Stack Exchange.
* 2: lxc-start: start a container. - SysTutorials.
* 3: lxc-attach: start a process inside a running container. - SysTutorials.

NEW QUESTION: 11
Which of the following commands moves the libvirt domainweb1from the current host system to the host systemhost2?
A. virsh node-update host1=-dom:web1 host2=+dom:web1
B. virsh pool-add host2 web1
C. virsh migrate web1 qemu+ssh://host2/system
D. virsh patch web1 .Domain.Node=host2
E. virsh cp .:web1 host2:web1
Answer: C (LEAVE A REPLY)
Explanation
The correct command to move the libvirt domain web1 from the current host system to the host system host2 is virsh migrate web1 qemu+ssh://host2/system. This command uses the virsh migrate command, which initiates the live migration of a domain to another host1. The first argument is the name of the domain to migrate, which in this case is web1. The second argument is the destination URI, which specifies the connection to the remote host and the hypervisor to use2. In this case, the destination URI is qemu+ssh://host2/system, which means to use the QEMU driver and connect to host2 via SSH, and use the system instance of libvirtd3. The other options are incorrect because they either use invalid

commands or arguments, such as node-update, pool-add, patch, or cp, or they do not specify the destination URI correctly.
References:
https://balamuruhans.github.io/2019/01/09/kvm-migration-with-libvirt.html
http://libvirt.org/migration.html

NEW QUESTION: 12
Which file in acgroupdirectory contains the list of processes belonging to thiscgroup?
A. pids
B. members
C. procs
D. casks
E. subjects
Answer: C (LEAVE A REPLY)
Explanation
The file procs in a cgroup directory contains the list of processes belonging to this cgroup. Each line in the file shows the PID of a process that is a member of the cgroup. A process can be moved to a cgroup by writing its PID into the cgroup's procs file. For example, to move the process with PID 24982 to the cgroup cg1, the following command can be used: echo 24982 > /sys/fs/cgroup/cg1/procs1. The file procs is different from the file tasks, which lists the threads belonging to the cgroup. The file procs can be used to move all threads in a thread group at once, while the file tasks can be used to move individual threads2. References:
* Creating and organizing cgroups cgroup2 - GitHub Pages
* Control Groups - The Linux Kernel documentation

NEW QUESTION: 13
FILL BLANK
What LXC command lists containers sorted by their CPU, block I/O or memory consumption? (Specify ONLY the command without any path or parameters.)
Answer:
lxc-top
Explanation
LXD supports the following network interface types for containers: macvlan, bridged, physical, sriov, and ovn1. Macvlan creates a virtual interface on the host that is connected to the same network as the parent interface2. Bridged connects the container to a network bridge that acts as a virtual switch3. Physical attaches the container to a physical network interface on the host2. Ipsec and wifi are not valid network interface types for LXD containers. References:
* 1: Bridge network - Canonical LXD documentation
* 2: How to create a network - Canonical LXD documentation

* 4: LXD containers and networking with static IP - Super User

NEW QUESTION: 14
What kind of virtualization is implemented by LXC?
A. System containers
B. Application containers
C. Hardware containers
D. CPU emulation
E. Paravirtualization
Answer: A (LEAVE A REPLY)
Explanation
LXC implements system containers, which are a type of operating-system-level virtualization. System containers allow running multiple isolated Linux systems on a single Linux control host, using a single Linux kernel. System containers share the same kernel with the host and each other, but have their own file system, libraries, andprocesses. System containers are different from application containers, which are designed to run a single application or service in an isolated environment. Application containers are usually smaller and more portable than system containers, but also more dependent on the host kernel and libraries. Hardware containers, CPU emulation, and paravirtualization are not related to LXC, as they are different kinds of virtualization methods that involve hardware abstraction, instruction translation, or modification of the guest operating system.
References:
* 1: LXC - Wikipedia
* 2: Linux Virtualization : Linux Containers (lxc) - GeeksforGeeks
* 3: Features - Proxmox Virtual Environment

NEW QUESTION: 15
Which of the following types of guest systems does Xen support? (Choose two.)
A. Foreign architecture guests (FA)
B. Paravirtualized quests (PVI
C. Emulated guests
D. Container virtualized guests
E. Fully virtualized guests
Answer: (SHOW ANSWER)
Explanation
Xen supports two types of guest systems: paravirtualized guests (PV) and fully virtualized guests (HVM).
* Paravirtualized guests (PV) are guests that have been modified to run on the Xen hypervisor. They use a special kernel that communicates with the hypervisor through hypercalls, and use paravirtualized drivers

* for I/O devices. PV guests can run faster and more efficiently than HVM guests, but they require the guest operating system to be ported to Xen and to support the Xen ABI12.
* Fully virtualized guests (HVM) are guests that run unmodified operating systems on the Xen hypervisor.
They use hardware virtualization extensions, such as Intel VT-x or AMD-V, to create a virtual platform for the guest. HVM guests can run any operating system that supports the hardware architecture, but they incur more overhead and performance penalties than PV guests. HVM guests can also use paravirtualized drivers for I/O devices to improve their performance12.
The other options are not correct. Xen does not support foreign architecture guests (FA), emulated guests, or container virtualized guests.
* Foreign architecture guests (FA) are guests that run on a different hardware architecture than the host.
For example, running an ARM guest on an x86 host. Xen does not support this type of virtualization, as it would require emulation or binary translation, which are very complex and slow techniques3.
* Emulated guests are guests that run on a software emulator that mimics the hardware of the host or another platform. For example, running a Windows guest on a QEMU emulator. Xen does not support this type of virtualization, as it relies on the emulator to provide the virtual platform, not the hypervisor. Xen can use QEMU to emulate some devices for HVM guests, but not the entire platform14.
* Container virtualized guests are guests that run on a shared kernel with the host and other guests, using namespaces and cgroups to isolate them. For example, running a Linux guest on a Docker container. Xen does not support this type of virtualization, as it requires the guest operating system to be compatible with the host kernel, and does not provide the same level of isolation and security as hypervisor-based virtualization56.
References:
* Xen Project Software Overview - Xen
* Xen ARM with Virtualization Extensions - Xen
* Xen Project Beginners Guide - Xen
* QEMU - Xen
* Docker overview | Docker Documentation
* What is a Container? | App Containerization | VMware

NEW QUESTION: 16
If aDockerfilecontains the following lines:
WORKDIR /
RUN cd /tmp
RUN echo test > test
where is the filetestlocated?
A. /ting/test within the container image.

B. /root/tesc within the container image.
C. /test within the container image.
D. /tmp/test on the system running docker build.
E. test in the directory holding the Dockerf ile.
Answer: (SHOW ANSWER)
Explanation
The WORKDIR instruction sets the working directory for any subsequent RUN, CMD, ENTRYPOINT, COPY and ADD instructions that follow it in the Dockerfile1. The RUN instruction executes commands in a new layer on top of the current image and commits the results2. The RUN cd command does not change the working directory for the next RUN instruction, because each RUN command runs in a new shell and a new environment3. Therefore, the file test is created in the root directory (/) of the container image, not in the /tmp directory. References:
* Dockerfile reference: WORKDIR
* Dockerfile reference: RUN
* difference between RUN cd and WORKDIR in Dockerfile

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NEW QUESTION: 17
What is the purpose of thekubeletservice in Kubernetes?
A. Provide a command line interface to manage Kubernetes.
B. Build a container image as specified in a Dockerfile.
C. Manage permissions of users when interacting with the Kubernetes API.
D. Run containers on the worker nodes according to the Kubernetes configuration.
E. Store and replicate Kubernetes configuration data.
Answer: D (LEAVE A REPLY)
Explanation
The purpose of the kubelet service in Kubernetes is to run containers on the worker nodes according to the Kubernetes configuration. The kubelet is an agent or program that runs on each node and communicates with the Kubernetes control plane. It receives a set of PodSpecs that describe the desired state of the pods that should be running on the node, and ensures that the containers described in those PodSpecs are running and healthy.

The kubelet also reports the status of the node and the pods back to the control plane. The kubelet does not manage containers that were not created by Kubernetes. References:
* Kubernetes Docs - kubelet
* Learn Steps - What is kubelet and what it does: Basics on Kubernetes

NEW QUESTION: 18
After setting up a data container using the following command:
docker create -v /data --name datastore debian /bin/true
how is an additional new container started which shares the/datavolume with the datastore container?
A. docker run --share-with datastore --name service debian bash
B. docker run -v datastore:/data --name service debian bash
C. docker run --volumes-from datastore --name service debian bash
D. docker run -v /data --name service debian bash
E. docker run --volume-backend datastore -v /data --name service debian bash
Answer: C (LEAVE A REPLY)
Explanation
The correct way to start a new container that shares the /data volume with the datastore container is to use the
--volumes-from flag. This flag mounts all the defined volumes from the referenced containers. In this case, the datastore container has a volume named /data, which is mounted in the service container at the same path. The other options are incorrect because they either use invalid flags, such as --share-with or --volume-backend, or they create new volumes instead of sharing the existing one, such as -v datastore:/data or -v /data. References:
* Docker Docs - Volumes
* Stack Overflow - How to map volume paths using Docker's --volumes-from?
* Docker Docs - docker run

NEW QUESTION: 19
Virtualization of which hardware component is facilitated by CPUs supporting nested page table extensions, such as Intel Extended Page Table (EPT) or AMD Rapid Virtualization Indexing (RVI)?
A. Memory
B. Network Interfaces
C. Host Bus Adapters
D. Hard Disks
E. IO Cache
Answer: A (LEAVE A REPLY)
Explanation

Nested page table extensions, such as Intel Extended Page Table (EPT) or AMD Rapid Virtualization Indexing (RVI), are hardware features that facilitate the virtualization of memory. They allow the CPU to perform the translation of guest virtual addresses to host physical addresses in a single step, without the need for software-managed shadow page tables. This reduces the overhead and complexity of memory management for virtual machines, and improves their performance and isolation. Nested page table extensions do not directly affect the virtualization of other hardware components, such as network interfaces, host bus adapters, hard disks, or IO cache.
References:
* Second Level Address Translation - Wikipedia
* c - What is use of extended page table? - Stack Overflow
* Hypervisor From Scratch - Part 4: Address Translation Using Extended ...

NEW QUESTION: 20
Which functionality is provided by Vagrant as well as by Docker? (Choose three.)
A. Both can share directories from the host file system to a guest.
B. Both start system images as containers instead of virtual machines by default.
C. Both can download required base images.
D. Both can apply changes to a base image.
E. Both start system images as virtual machines instead of containers bv default.
Answer: A,C,D (LEAVE A REPLY)
* Both Vagrant and Docker can share directories from the host file system to a guest. This allows the guest to access files and folders from the host without copying them. Vagrant uses the config.vm.synced_folder option in the Vagrantfile to specify the shared folders1. Docker uses the -v or --volume flag in the docker run command to mount a host directory as a data volume in the container2.
* Both Vagrant and Docker can download required base images. Base images are the starting point for creating a guest environment. Vagrant uses the config.vm.box option in the Vagrantfile to specify the base image to use1. Docker uses the FROM instruction in the Dockerfile to specify the base image to use2. Both Vagrant and Docker can download base images from public repositories or local sources.
* Both Vagrant and Docker can apply changes to a base image. Changes are modifications or additions to the base image that customize the guest environment. Vagrant uses provisioners to run scripts or commands on the guest after it is booted1. Docker uses instructions in the Dockerfile to execute commands on the baseimage and create a new image2. Both Vagrant and Docker can save the changes to a new image or discard them after the guest is destroyed.
* Vagrant and Docker differ in how they start system images. Vagrant starts system images as virtual machines by default, using a provider such as VirtualBox, VMware, or Hyper-V1. Docker starts system images as containers by default, using the native containerization functionality on macOS, Linux, and Windows2. Containers are generally

more lightweight and faster than virtual machines, but less secure and flexible.
References: 1: Vagrant vs. Docker | Vagrant | HashiCorp Developer 2: Vagrant vs Docker: Which Is Right for You? (Could Be Both) - Kinsta Web Development Tools

NEW QUESTION: 21
What is the purpose of the packer inspect subcommand?
A. Retrieve files from an existing Packer image.
B. Execute commands within a running instance of a Packer image.
C. List the artifacts created during the build process of a Packer image.
D. Show usage statistics of a Packer image.
E. Display an overview of the configuration contained in a Packer template.
Answer: E (LEAVE A REPLY)
* The purpose of the packer inspect subcommand is to display an overview of the configuration contained in a Packer template1. A Packer template is a file that defines the various components a Packer build requires, such as variables, sources, provisioners, and post-processors2. The packer inspect subcommand can help you quickly learn about a template without having to dive into the HCL (HashiCorp Configuration Language) itself1. The subcommand will tell you things like what variables a template accepts, the sources it defines, the provisioners it defines and the order they'll run, and more1.
* The other options are not correct because:
* A) Retrieve files from an existing Packer image. This is not the purpose of the packer inspect subcommand. To retrieve files from an existing Packer image, you need to use the packer scp subcommand, which copies files from a running instance of a Packer image to your local machine2.
* B) Execute commands within a running instance of a Packer image. This is not the purpose of the packer inspect subcommand. To execute commands within a running instance of a Packer image, you need to use the packer ssh subcommand, which connects to a running instance of a Packer image via SSH and runs the specified command2.
* C) List the artifacts created during the build process of a Packer image. This is not the purpose of the packer inspect subcommand. To list the artifacts created during the build process of a Packer image, you need to use the packer build subcommand with the -machine-readable flag, which outputs the build information in a machine-friendly format that includes the artifact details2.
* D) Show usage statistics of a Packer image. This is not the purpose of the packer inspect subcommand. To show usage statistics of a Packer image, you need to use the packer console subcommand with the -stat flag, which launches an interactive console that allows you to inspect and modify variables, sources, and functions, and displays the usage statistics of the current session2. References: 1: packer inspect - Commands | Packer | HashiCorp Developer 2:
Commands | Packer | HashiCorp Developer

NEW QUESTION: 22
What does IaaS stand for?
A. Information as a Service
B. Intelligence as a Service
C. Integration as a Service
D. Instances as a Service
E. Infrastructure as a Service
Answer: (SHOW ANSWER)
Explanation
IaaS is a type of cloud computing service that offers essential compute, storage, and networking resources on demand, on a pay-as-you-go basis. IaaS is one of the four types of cloud services, along with software as a service (SaaS), platform as a service (PaaS), and serverless12. IaaS eliminates the need for enterprises to procure, configure, or manage infrastructure themselves, and they only pay for what they use23. Some examples of IaaS providers are Microsoft Azure, Google Cloud, and Amazon Web Services.

NEW QUESTION: 23
Which of the following are true regarding the CPU of a QEMU virtual machine? (Choose two.)
A. The CPU architecture of a QEMU virtual machine is independent of the host system's architecture.
B. Each QEMU virtual machine can only have one CPU with one core.
C. For each QEMU virtual machine, one dedicated physical CPU core must be reserved.
D. QEMU uses the concept of virtual CPUs to map the virtual machines to physical CPUs.
E. QEMU virtual machines support multiple virtual CPUs in order to run SMP systems.
Answer: A,E (LEAVE A REPLY)
Explanation
The CPU architecture of a QEMU virtual machine is independent of the host system's architecture. QEMU can emulate many CPU architectures, including x86, ARM, Alpha, and SPARC, regardless of the host system's architecture1. This allows QEMU to run guest operating systems that are not compatible with the host system's hardware. Therefore, option A is correct. QEMU virtual machines support multiple virtual CPUs in order to run SMP systems. QEMU uses the concept of virtual CPUs (vCPUs) to map the virtual machines to physical CPUs. Each vCPU is a thread that runs on a physical CPU core. QEMU allows the user to specify the number of vCPUs and the CPU model for each virtual machine. QEMU can run SMP systems with multiple vCPUs, as well as single-processor systems with one vCPU2. Therefore, option E is also correct. The other options are incorrect because they do not describe the CPU of a QEMU virtual machine. Option B is wrong because QEMU virtual machines can have more than one CPU with more than one core. Option C is wrong because QEMU does not require a dedicated physical CPU core

for each virtual machine. QEMU can share the physical CPU cores among multiple virtual machines, depending on the load and the scheduling policy.
Option D is wrong because QEMU does not use the term CPU, but vCPU, to refer to the virtual machines' processors. References:
* QEMU vs VirtualBox: What's the difference? - LinuxConfig.org
* QEMU / KVM CPU model configuration - QEMU documentation
* Introduction - QEMU documentation
* Qemu/KVM Virtual Machines - Proxmox Virtual Environment

NEW QUESTION: 24
Which of the following commands lists all differences between the disk images vm1-snap.img and vm1.img?
A. virt-delta -a vm1-snap.img -A vm1.img
B. virt-cp-in -a vm1-snap.img -A vm1.img
C. virt-cmp -a vm1-snap.img -A vm1.img
D. virt-history -a vm1-snap.img -A vm1.img
E. virt-diff -a vm1-snap.img -A vm1.img
Answer: (SHOW ANSWER)
Explanation
The virt-diff command-line tool can be used to list the differences between files in two virtual machines or disk images. The output shows the changes to a virtual machine's disk images after it has been running. The command can also be used to show the difference between overlays1. To specify two guests, you have to use the -a or -d option for the first guest, and the -A or -D option for the second guest. For example: virt-diff -a old.img -A new.img1. Therefore, the correct command to list all differences between the disk images vm1-snap.img and vm1.img is: virt-diff -a vm1-snap.img -A vm1.img. The other commands are not related to finding differences between disk images. virt-delta is a tool to create delta disks from two disk images2. virt-cp-in is a tool to copy files and directories into a virtual machine disk image3. virt-cmp is a tool to compare two files or directories in a virtual machine disk image4. virt-history is a tool to show the history of a virtual machine disk image5. References:
* 21.13. virt-diff: Listing the Differences between Virtual Machine Files ...
* 21.14. virt-delta: Creating Delta Disks from Two Disk Images ...
* 21.6. virt-cp-in: Copying Files and Directories into a Virtual Machine Disk Image ...
* 21.7. virt-cmp: Comparing Two Files or Directories in a Virtual Machine Disk Image ...
* 21.8. virt-history: Showing the History of a Virtual Machine Disk Image ...

NEW QUESTION: 25
What happens when the following command is executed twice in succession?
docker run -tid -v data:/data debian bash

A. The container resulting from the second invocation can only read the content of /data/ and cannot change it.
B. Each container is equipped with its own independent data volume, available at /data/ in the respective container.
C. Both containers share the contents of the data volume, have full permissions to alter its content and mutually see their respective changes.
D. The original content of the container image data is available in both containers, although changes stay local within each container.
E. The second command invocation fails with an error stating that the volume data is already associated with a running container.
Answer: (SHOW ANSWER)
Explanation
The command docker run -tid -v data:/data debian bash creates and runs a new container from the debian image, with an interactive terminal and a detached mode, and mounts a named volume data at /data in the container12. If the volume data does not exist, it is created automatically3. If the command is executed twice in succession, two containers are created and run, each with its own terminal and process ID, but they share the same volume data. This means that both containers can access, modify, and see the contents of the data volume, and any changes made by one container are reflected in the other container. Therefore, the statement C is true and the correct answer. The statements A, B, D, and E are false and incorrect, as they do not describe the behavior of the command or the volume correctly. References:
* 1: docker run | Docker Docs.
* 2: Docker run reference | Docker Docs - Docker Documentation.
* 3: Use volumes | Docker Documentation.
* [4]: How to Use Docker Run Command with Examples - phoenixNAP.

NEW QUESTION: 26
What is the default provider of Vagrant?
A. lxc
B. hyperv
C. virtualbox
D. vmware_workstation
E. docker
Answer: C (LEAVE A REPLY)
Explanation
Vagrant is a tool that allows users to create and configure lightweight, reproducible, and portable development environments. Vagrant supports multiple providers, which are the backends that Vagrant uses to create and manage the virtual machines. By default, VirtualBox is the default provider for Vagrant. VirtualBox is still the most accessible platform to use Vagrant: it is free, cross-platform, and has been supported by Vagrant for

years. With VirtualBox as the default provider, it provides the lowest friction for new users to get started with Vagrant. However, users can also use other providers, such as VMware, Hyper-V, Docker, or LXC, depending on their preferences and needs. To use another provider, users must install it as a Vagrant plugin and specify it when running Vagrant commands. Users can also change the default provider by setting the VAGRANT_DEFAULT_PROVIDER environmental variable. References:
* Default Provider - Providers | Vagrant | HashiCorp Developer1
* Providers | Vagrant | HashiCorp Developer2
* How To Set Default Vagrant Provider to Virtualbox3

NEW QUESTION: 27
Which of the following statements in aDockerfileleads to a container which outputs hello world? (Choose two.)
A. ENTRYPOINT "echo Hello World"
B. ENTRYPOINT ["echo hello world"]
C. ENTRYPOINT ["echo", "hello", "world"]
D. ENTRYPOINT echo Hello World
E. ENTRYPOINT "echo", "Hello", "World*
Answer: (SHOW ANSWER)
Explanation
The ENTRYPOINT instruction in a Dockerfile specifies the default command to run when a container is started from the image. The ENTRYPOINT instruction can be written in two forms: exec form and shell form.
The exec form uses a JSON array to specify the command and its arguments, such as ["executable",
"param1", "param2"]. The shell form uses a single string to specify the command and its arguments, such as
"executable param1 param2". The shell form is converted to the exec form by adding /bin/sh -c to the beginning of the command. Therefore, the following statements in a Dockerfile are equivalent and will lead to a container that outputs hello world:
ENTRYPOINT ["echo hello world"] ENTRYPOINT ["/bin/sh", "-c", "echo hello world"] ENTRYPOINT
"echo hello world" ENTRYPOINT ["echo", "hello", "world"] ENTRYPOINT ["/bin/sh", "-c", "echo",
"hello", "world"] ENTRYPOINT "echo hello world"
The other statements in the question are invalid or incorrect. The statement A. ENTRYPOINT "echo Hello World" is invalid because it uses double quotes to enclose the entire command, which is not allowed in the shell form. The statement D. ENTRYPOINT echo Hello World is incorrect because it does not use quotes to enclose the command, which is required in the shell form. The statement E. ENTRYPOINT "echo", "Hello",

"World" is invalid because it uses double quotes to separate the command and its arguments, which is not allowed in the exec form. References:
* Dockerfile reference | Docker Docs
* Using the Dockerfile ENTRYPOINT and CMD Instructions - ATA Learning
* Difference Between run, cmd and entrypoint in a Dockerfile

NEW QUESTION: 28
Which of the following commands boots a QEMU virtual machine using hardware virtualization extensions?
A. qvirt -create -drive file=debian.img -cdrom debian.iso -m 1024 -boot d -driver hvm
B. vm -kvm -drive file=debian.img -cdrom debian.iso -m 1024 -boot d
C. qemu-hw -create -drive file=debian.img -cdrom debian.iso -m 1024 -boot d
D. qemu -accel kvm -drive file-debian.img -cdrom debian.iso -m 1024 -boot d
E. qvm start -vmx -drive file=debian.img -cdrom debian.iso -m 1024 -boot d
Answer: (SHOW ANSWER)
Explanation
The correct command to boot a QEMU virtual machine using hardware virtualization extensions is qemu
-accel kvm -drive file-debian.img -cdrom debian.iso -m 1024 -boot d. This command uses the -accel option to specify the hardware accelerator to use, which in this case is kvm. KVM is a full virtualization solution for Linux on x86 hardware containing virtualization extensions (Intel VT or AMD-V)1. The -drive option specifies the disk image file to use, which in this case is debian.img. The -cdrom option specifies the ISO image file to use as a CD-ROM, which in this case is debian.iso. The -m option specifies the amount of memory to allocate to the virtualmachine, which in this case is 1024 MB. The -boot option specifies the boot order, which in this case is d, meaning to boot from the CD-ROM first.
References:
https://access.redhat.com/documentation/en-
us/red_hat_enterprise_linux/7/html/virtualization_deployment_and_
https://fedoraproject.org/wiki/Virtualization

NEW QUESTION: 29
In order to use the optiondom0_memto limit the amount of memory assigned to the Xen Domain-0, where must this option be specified?
A. In the bootloader configuration, when Xen is booted.
B. In any of Xen's global configuration files.
C. In its .config file, when the Domain-0 kernel is built.
D. In the configuration file /etc/xen/Domain-0.cfg, when Xen starts.
E. In its Makefile, when Xen is built.
Answer: A (LEAVE A REPLY)
Explanation

The option dom0_mem is used to set the initial and maximum memory size of the Domain-0, which is the privileged domain that starts first and manages the unprivileged domains (DomU) in Xen. The option dom0_mem must be specified in the bootloader configuration, such as GRUB or GRUB2, when Xen is booted.
This ensures that the Domain-0 kernel can allocate memory for storing memory metadata and network related parameters based on the boot time amount of memory. If the option dom0_mem is not specified in the bootloader configuration, the Domain-0 will use all the available memory on the host system by default, which may cause performance and security issues. References:
* Managing Xen Dom0s CPU and Memory
* Xen Project Best Practices
* Dom0 Memory - Where It Has Not Gone

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