dream CATCHER

Course Assessment Test

Course Title	Docker in Depth	**Date**	
Name		**Dept**	

1) *This assessment test is to be given out before course commencement. Answers are to be filled in column entitled "Pre-Course Answer"*
2) *At the end of the course, the same assessment sheet is to be given out where answers are to be filled in column entitled "Post-Course Answer". Instructor will then share the answers and participants need to total the score in both "Pre" and "Post" columns through self-marking.*
3) *Assessment sheets will be collected for filling.*

No	**Question**	**Pre-Course Answer**	**Post-Course Answer**
1	Identify the correct statements about containerization technologies such as Docker i. The guest OS in the containers have their own individual kernels which are separate from the host OS ii. Isolation and security between containers is much better compared to VMs iii. Starts much faster than VMs iv. Has a smaller resource footprint compared to VMs a) All statements are correct b) Statements i), iii) and iv) c) Statements ii), iii) and iv) d) Statements iii) and iv)		D
2	What are the primary use cases for Docker? i. Standardization and portability of application environment configuration which guarantees identical execution behavior each time ii. Facilitates the movement of an app through the various phases of the DevOps workflow (dev, testing, deployment) iii. Ensuring that deployed applications within the container execute much faster and securely compared to running directly on the host machine iv. Supporting a serverless deployment in a cloud environment a) Statements i) and ii) b) Statements i), ii) and iii) c) Statements i), ii) and iv) d) All statements are correct		A

3	Name the Docker architecture component that listens for API requests and manages objects such as images, network, volumes, etc a) Docker client b) Docker daemon (dockerd) c) runc d) containerd		B
4	Identify the statements below that correctly characterize the union mount file system within a Docker container i. Allows a container to temporarily access the file system of a different container for specific networking operations ii. Allows several file systems to be layered or mounted on top of each other, which appears as a single file system to the process that uses them iii. When a container is launched from an image, a stack of images is built and a read-write layer is mounted right at the top iv. Changes are only localized to the topmost read-write layer, while other layers remain read-only which allows them to be utilized by other containers a) Statements i), ii) and iii) b) Statements i), ii) and iv) c) Statements ii), iii) and iv) d) All statements are correct		C
5	Identify the potential tools available within the Docker ecosystem for orchestrating a Docker cluster (i.e. managing scaling, networking, replication, rollouts, etc) i. Docker Swarm ii. Docker Orchestrator iii. Kubernetes iv. Travis a) Option i) and ii) b) Option i) and iii) c) Option ii) and iii) d) Option iii) and iv)		B

6	In order to view all the images on the local registry with the tag `latest`, we will type the command: a) `docker image ls --format "{{.Tag}}"` b) `docker image ls --find=reference="*latest*"` c) `docker image ls --filter=reference="latest:*"` d) `docker image ls --filter=reference="*:latest"`		D

7	Consider an image listing as follows:
	`REPOSITORY  TAG      IMAGE ID     CREATED      SIZE`
	`superman    latest   9ad2c435a887 2 weeks ago  6 MB`
	`spiderman   latest   9ad2c435a887 4 weeks ago  5 MB`
	`superman    newest   8cb521123214 1 month ago  13 MB`
	What happens when we type this command?
	`docker image rm superman:latest`
	a) The image with the ID `9ad2c435a887` is removed from the local registry
	b) The `superman:latest` tag is removed
	c) Docker gives an error message regarding multiple names referencing the same image ID
	d) Docker gives an error message regarding confusion over images with the same repository name
			B

8	What does the command below accomplish? `docker image rm --force $(docker image ls -q)` a) It deletes all images that have containers started from them and are still running b) It deletes all images that have containers started from them but have stopped running c) It deletes all images on the local registry d) It deletes all images which were not created locally from a container commit		C

9	What is the Docker command to open a shell within a container from which we can input commands after executing the container from a downloaded image ? a) docker container run -it alpine:latest /bin/sh b) docker container run shell alpine:latest /bin/shell c) docker container run terminal alpine:latest /bin/sh d) docker container run terminal alpine:latest /bin/bash		A
10	What is the Docker command to create an image from a running container ? a) docker image create new *container-id* newimagename:latest b) docker image save new *container-id* newimagename:latest c) docker container commit *container-id* newimagename:latest d) docker container save *container-id* newimagename:latest		C
Total			