Report/Summary:

Link to the video:
https://drive.google.com/file/d/15i_g_EZhAIaznjLp1IqyK7gbXvdCMWYi/view?usp=sharing

Docker - HelloWorld:

Q5. What are docker images, containers, and registry?

Docker images are basically classes inside a docker. A container is a platform that lets you run any image and acts as an operating system. The registry is simply the storing unit for all the images and their repositories.

Q6. List the Docker commands used in the video with a brief description for each command and option

A. Docker version - checks for the docker version and if it's used in the terminal
B. docker build -t hello-world:1.0 . - builds a docker file with the given name and tag with '.' as the current path
C. docker images - lists all the available images
D. docker run -r hello-world:1.0 - this command will run the image with the name 'hello-world' and tag '1.0'
E. docker ps - containers running
F. docker build -d hello-world:2.0 - runs the image with all specifications
G. docker logs <container ID> - track the functionality of the container

Q7. At the end of the video, there are two running containers, what commands can be used to stop and delete those two containers?

- docker kill <container ID> - strops the conrtainer run-time
- Docker -rm -f <contaier ID> - removes/deletes the container

Link to the video:
https://drive.google.com/file/d/1drsvfftdzUs5sDiKFwtp5JqQNEUrs6HM/view?usp=sharing

Docker - WebApp:

Q8. What's a multi-container Docker application?

An application where the system is consists of multiple containers and given the condition that each container communicates with at least one container.

Q9. How are these containers communicated together?

To have these containers communicate with each other we can bridge a connection between them using the “network” command chain which allows the container to sed/receive data.

Q10. What command can be used to stop the Docker application and delete its images?

- sudo docker create - -name firstkill wordpress - this will kill the container with the specified name
- docker image -rmi <image ID>

Q11. List the new docker commands used in the video with a brief description for each command and option.

1. Docker pull mysql: pulls the mysql image
2. Docker run --name app-db -d -e MYSQL_ROOT_PASSWORD=password -e MYSQL_DATABASE=myDB mysql- creates a container called “app-db” which will set a root password for mysql database and gives the database name “myDB”
3. Docker run --name app -d my-web-app:1.0 - runs the app in detached mode
4. Docker rm -f app - stops the container because of “-f” and removes it - “rm”
5. Docker run --name app -d -p 8080:8080 my-web-app:1.0 -Docker allows port 8080 to become available and sets port to 8080
6. Docker run --name app -d -p 8081:8080 my-web-app:1.0 - Docker sets the host machine port to 8081.
7. Docker network create app-network- creates a network between containers
8. Docker network ls- lists all the networks in docker
9. Docker network connect app-network app-db- connects app-db container to the app network.
10. Docker run --name app -d -p 8080:8080 network=app-network my-web-app:1.0 - re-creating application container with network
11. Docker compose-up: brings application up