1. What is Docker and how does it differ from a virtual machine? [1]
   - It shares the OS with the host machine. Virtual machines run their own OS.
2. How does Docker ensure that containers are isolated from each other and the host system? [2]
   - It uses networks and namespaces to isolate the containers from each other and the host system.
3. What is the purpose of a Dockerfile? [2]
   - Describes how to build a docker image.
4. What is the purpose of a requirements.txt file? [2]
   - Describes the dependencies of a python project.
5. How can you mount a host directory as a volume in a container? [2]
   - `docker run -v /path/to/host/dir:/path/to/container/dir`
6. What is the difference between a docker image and a docker container? [2]
   - A container is a running instance of an image. The image describes how to build the container.
7. What command can be used to create an image from a Dockerfile? [2]
   - `docker build -t <image_name> .`
8. What command will start a docker container? [2]
   - `docker run <image_name>`
9. What command will stop a docker container? [2]
   - `docker stop <container_name>`
10. What command will remove a docker container? Image? [5]
    - `docker rm <container_name> # Container`
    - `docker rmi <image_name> # Image`
11. What command will list all running docker containers? all containers? [5]
    - `docker ps # Running containers`
    - `docker ps -a # All containers`
12. What command will list all docker images? [1]
    - `docker images -a`
13. What command do you use to deploy docker containers using the information in the dockercompose.yml file? [2]
    - `docker-compose -f dockercompose.yml up`
    - if the file is named docker-compose.yml, you can omit the -f flag with the explict name.
14. How can you specify in the docker-compose.yml file that you want docker containers to use the hosts' network? [5]
    - ```
      networks:
        default:
          external:
            name: host
      ```
15. How can you specify in the docker-compose.yml file where the Dockerfile for a particular container is found? [5]
    - ```
      services:
        <service_name>:
          build:
      ```

```yaml
context: /path/to/context
dockerfile: /path/to/dockerfile # Relative to context
```