Docker - Basics

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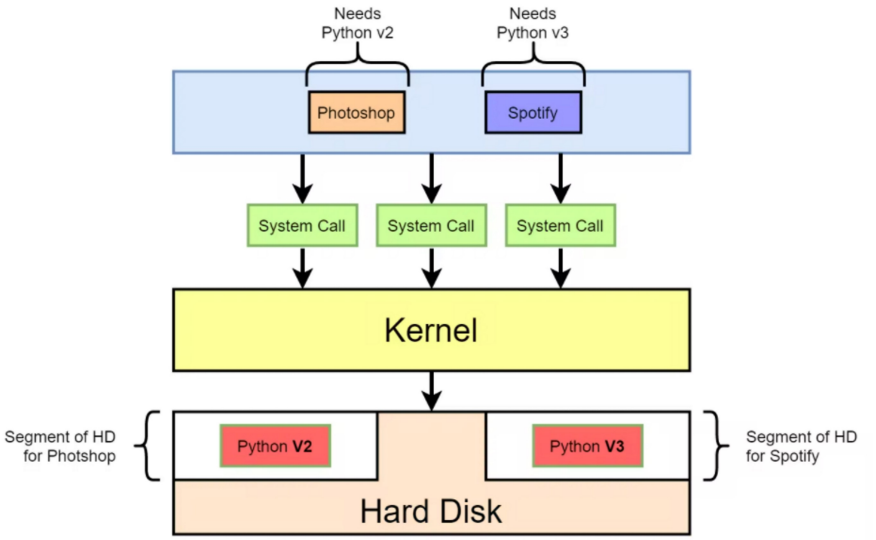
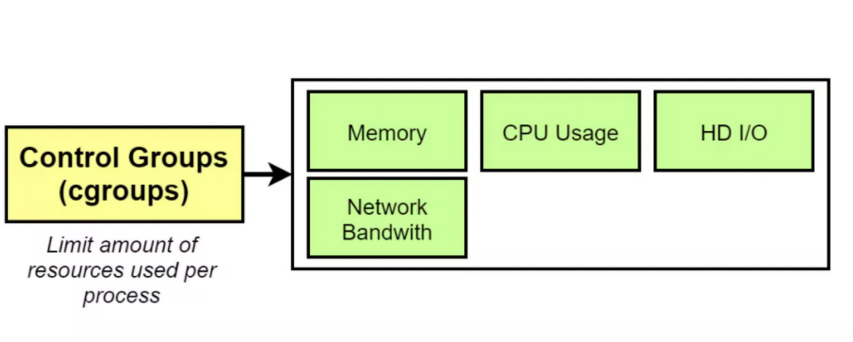
Whenever you run Docker run followed by image name then it will check whether the image is available in Image cache(locally) or not. If not then it will look on Docker hub and load it into the local system. Usually it is loaded in Image Cache.

Namespacing is the process of allocating dedicated hardware resources to a single process or a set of processes.



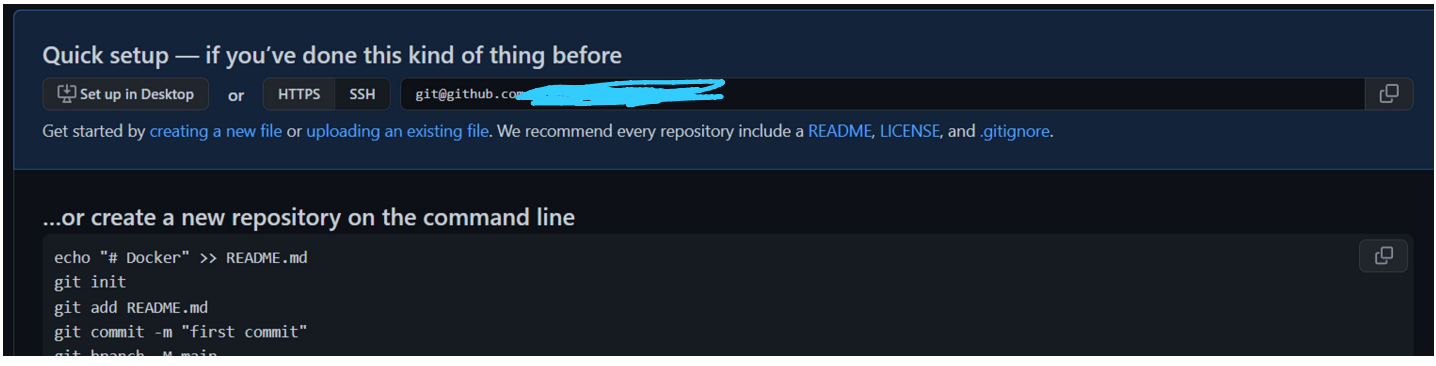
Control Groups (cgroups) is used to limit or control the number of resources available to a particular process or a set of processes.

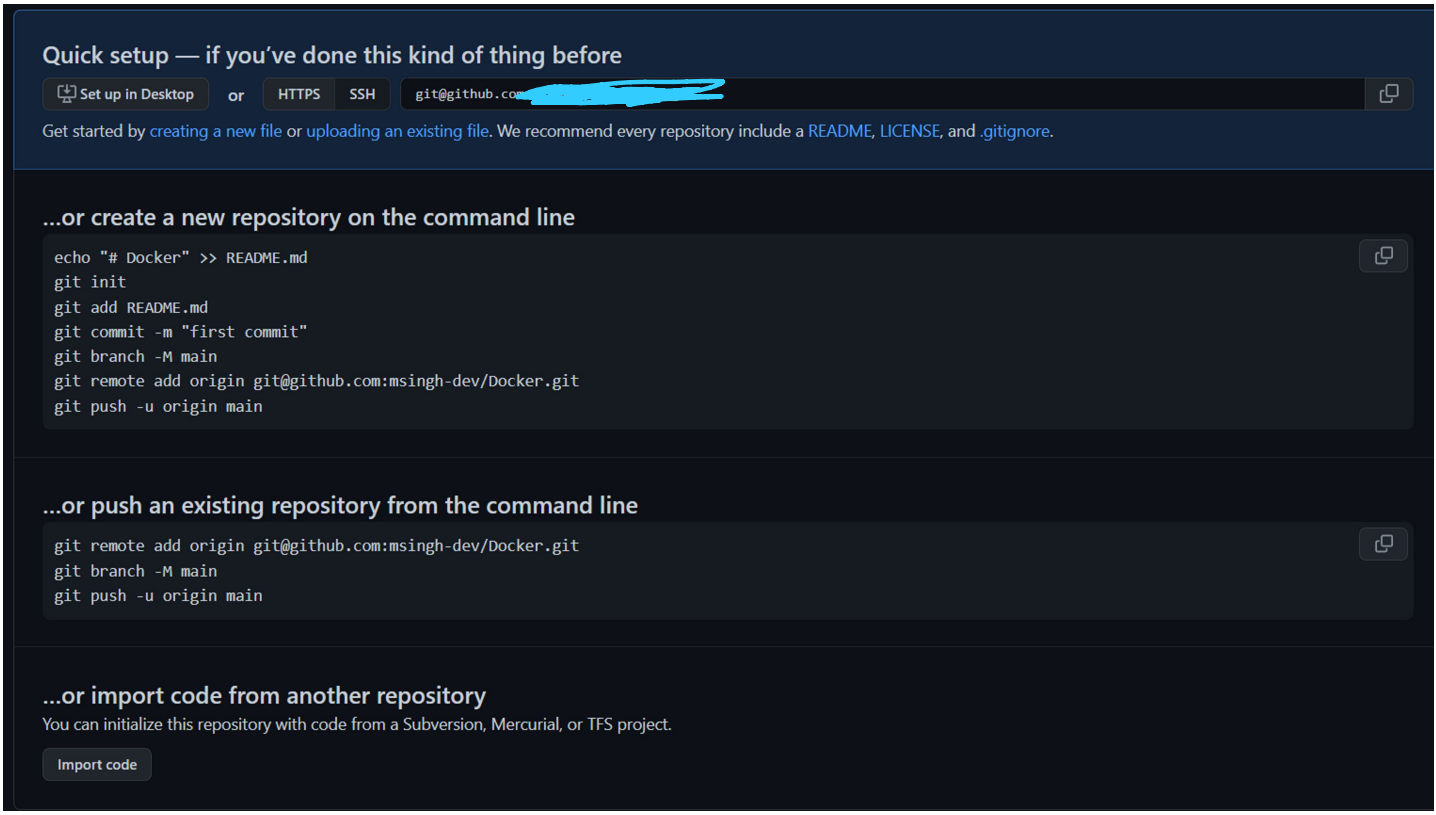


Container can simply be explained as a process or a set of processes that have a grouping of resources specifically assigned to it.

A Docker image is a file system snapshot that is used to create a container and run any processes defined within.

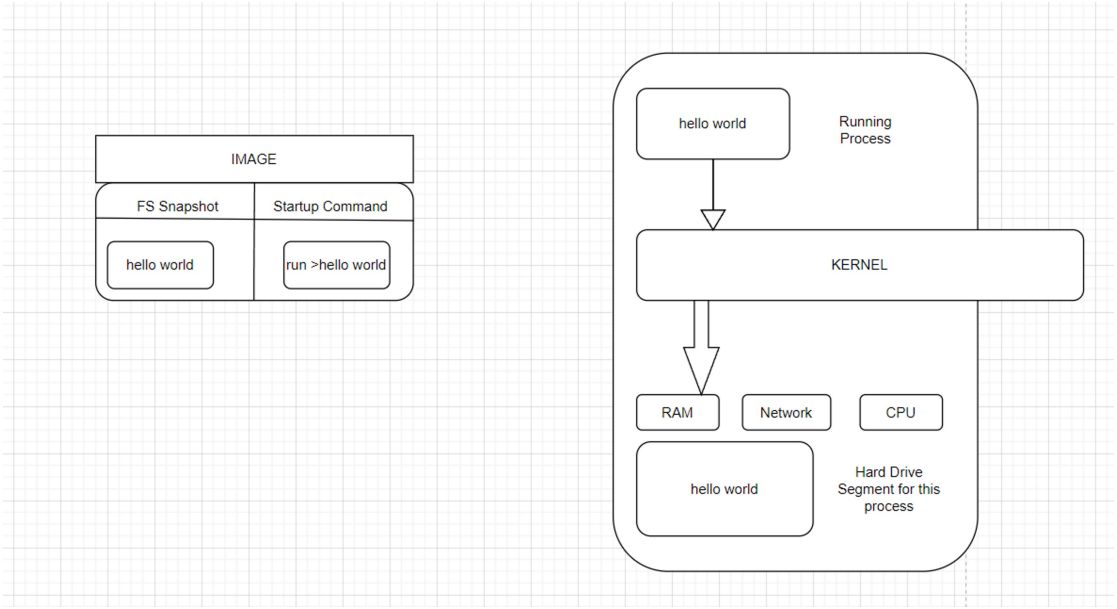
```
docker run <image-name>
```





Docker ps ---> Docker command to find out which images are currently running.

Docker ps --all



- docker create hello-world
- docker start -a <docker_output_from_above_command>
- docker start -a <docker_id>
- docker system prune --> To delete all the containers that are exited.
- docker logs <container_id>
- docker kill <container_id> or docker stop <container_id>
- docker exec -it <container_id> <command>

Getting a command prompt in a container:

- docker exec -it <container_id> sh

- [x] sh : It is a command processor.

  How to start a shell inside a container:

- ★ docker run -it <image_name> sh