Sure thing! Here’s a comprehensive guideline for Docker with various commands and their definitions:

### Basic Docker Commands

- \*\*`docker --version`\*\*: Shows the Docker version installed on your system.

- \*\*`docker pull <image>`\*\*: Downloads an image from Docker Hub.

- \*\*`docker images`\*\*: Lists all images on your system.

- \*\*`docker ps`\*\*: Lists all running containers.

- \*\*`docker ps -a`\*\*: Lists all containers, including those that are stopped.

- \*\*`docker run <image>`\*\*: Runs a container based on the specified image.

- \*\*`docker stop <container\_id>`\*\*: Stops a running container.

- \*\*`docker rm <container\_id>`\*\*: Removes a stopped container.

- \*\*`docker rmi <image\_id>`\*\*: Removes an image.

### Advanced Docker Commands

- \*\*`docker build -t <tag> <path>`\*\*: Builds a Docker image from a Dockerfile at the specified path and tags it.

- \*\*`docker exec -it <container\_id> <command>`\*\*: Executes a command inside a running container.

- \*\*`docker logs <container\_id>`\*\*: Displays logs from a container.

- \*\*`docker network ls`\*\*: Lists all Docker networks.

- \*\*`docker volume ls`\*\*: Lists all Docker volumes.

- \*\*`docker inspect <container\_id/image\_id>`\*\*: Returns detailed information about a container or image.

### Networking Commands

- \*\*`docker network create <network\_name>`\*\*: Creates a new Docker network.

- \*\*`docker network connect <network\_name> <container\_id>`\*\*: Connects a container to a network.

- \*\*`docker network disconnect <network\_name> <container\_id>`\*\*: Disconnects a container from a network.

### Volume Management Commands

- \*\*`docker volume create <volume\_name>`\*\*: Creates a new Docker volume.

- \*\*`docker volume inspect <volume\_name>`\*\*: Returns detailed information about a volume.

- \*\*`docker volume rm <volume\_name>`\*\*: Removes a Docker volume.

### Docker Compose Commands

- \*\*`docker-compose up`\*\*: Builds, (re)creates, starts, and attaches to containers for a service.

- \*\*`docker-compose down`\*\*: Stops and removes containers, networks, images, and volumes.

- \*\*`docker-compose build`\*\*: Builds or rebuilds services.

- \*\*`docker-compose logs`\*\*: Displays log output from services.

### Dockerfile Instructions

- \*\*`FROM`\*\*: Specifies the base image.

- \*\*`COPY`\*\*: Copies files from the host into the image.

- \*\*`RUN`\*\*: Runs a command during the image build process.

- \*\*`CMD`\*\*: Specifies the default command to run when the container starts.

- \*\*`EXPOSE`\*\*: Exposes a port.

- \*\*`ENV`\*\*: Sets environment variables.

I hope this helps! If you have any more questions or need further explanation on any of these commands, feel free to ask.