Docker Commands Cheat Sheet (with Explanations)

Basic Container Commands

```
docker run IMAGE_NAME
```
Run a container from an image (pulls image if not available).

```
docker run -d IMAGE_NAME
```
Run a container in the background (detached mode).

```
docker run -p 8080:80 IMAGE_NAME
```
Run container and map host port 8080 to container port 80.

```
docker run --name my_container IMAGE_NAME
```
Run with a custom container name.

```
docker start my_container
```
Start an existing (stopped) container.

```
docker stop my_container
```
Stop a running container.

```
docker restart my_container
```
Restart a container.

Container Management

```
docker ps
```
List running containers.

```
docker ps -a
```
List all containers, including stopped ones.

```
docker logs my_container
```
View logs from a container.

```
docker exec -it my_container bash
```
Access a running container's shell interactively.

```
docker rm my_container
```
Remove a container.

Image Management

```
docker images
```
List all Docker images available locally.

```
docker pull IMAGE_NAME
```
Download an image from Docker Hub (or registry).

```
docker build -t my_image .
```
Build an image from a Dockerfile in the current directory.

```
docker rmi IMAGE_NAME
```
Remove an image from local system.

System Cleanup

```
docker container prune
```
Remove all stopped containers.

```
docker image prune
```
Remove unused images.

```
docker system prune
```
Remove unused containers, images, networks, and volumes.

Docker Compose (multi-container apps)

```
docker-compose up
```
Start services defined in docker-compose.yml.

```
docker-compose up -d
```
Start services in the background.

```
docker-compose down
```
Stop and remove containers, networks, and volumes created by Compose.