Docker Cheat Sheet

Process Management

```
# Show all running docker containers
docker ps

# Show all docker containers
docker ps -a

# Run a container
docker run <image>:<tag>

# Run a container and connect to it
docker run -it <image>:<tag>

# Run a container and clean it up after exit
docker run --rm <image>:<tag>

# Run a container in the background
docker run -d <image>:<tag>

# Stop a container
docker stop <container>

# Kill a container
docker kill <container>
```

Images/Repository

```
# List available local images
docker image ls

# Search for docker images
docker search <image>

# Pull a docker image
docker image pull <image>

# Build an image with a dockerfile
docker image build -t <image>:<tag> <run_directory> -f
<dockerfile>

# Login to a remote repository
docker login <repository>

# Push an image to your remotee repository
docker image push <image>:<tag>

# Remove a local docker image
docker image rm <image>:<tag>

# Show metadata for an image
docker image inspect <image>

# Remove all unused docker images
docker image prune
```

Docker Compose

```
# Start your docker-compose defined resources in detached mode
docker-compose up -d -f <docker_compose_yaml>

# Stop all docker-compose resources
docker-compose stop

# Destroy all docker-compose resources
docker-compose down

# Show docker-compose processes
docker-compose ps

# Show docker-compose logs
docker-compose logs

# Show docker-compose resource consumption
docker-compose top

# Pull latest docker-compose images
docker-compose pull
```

Volumes & Ports

```
# List volumes
docker volume ls

# Create a volume
docker volume create <volume>

# Delete a volume
docker volume rm <volume>

# Show volume metadata
docker volume inspect <volume>

# Delete all volumes not attached to a container
docker volume prune

# Mount a local directory to your container
docker run -v <local_dir>:<container_dir> <image>

# Copy file or folder from a docker container to host machine
docker cp <container>:<container_dir> <local_dir>

# Copy file or folder from local machine onto a container
docker cp <local_dir> <container>:<container_dir>

# Map a local port to a docker instance
docker run -d -p 127.0.0.1:<local_port>:<docker_port> <image>

# List the ports a docker container is running on
docker port <container>
```

Troubleshooting

```
# Show the logs of a container
docker logs <container>

# Follow/tail the logs of a container
docker logs -f <container>

# Show timestamps on docker logs
docker logs -t <container>

# Show details/metadata of a container
docker inspect <container>

# Show a 'top' view of processes running on a container
docker top <container>

# Show a 'top' view of all docker containers
docker stats

# Show any files that have changed since startup
docker diff <container>

# Connect to an already running container
docker attach <container>

# Execute a command on a container
docker exec -it <container_id> /bin/bash

# Show docker system wide information
docker system info

# Show docker disk space used
docker system df
```