# Docker Fundamentals Guide

Docker is a platform for developing, shipping, and running applications in containers. Containers are lightweight, standalone, executable packages that include everything needed to run a piece of software: code, runtime, system tools, libraries, and settings.

Key Concepts:
- Docker Image: A read-only template with instructions for creating a container.
- Docker Container: A runnable instance of an image.
- Dockerfile: A text file with instructions to build a Docker image.
- Docker Compose: A tool for defining multi-container applications.

Common Docker Commands:

```
docker build -t myapp .      # Build an image from a Dockerfile
docker run -d -p 8080:80 myapp  # Run a container in detached mode
docker ps                # List running containers
```

# Docker Networking

Docker provides several networking drivers:
- bridge: The default network driver for standalone containers.
- host: Removes network isolation between the container and Docker host.
- overlay: Connects multiple Docker daemons for swarm services.
- none: Disables all networking for a container.

Containers on the same bridge network can communicate via container name.