Docker-compose.yaml and DockerFile

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Docker Compose YAML (docker-compose.yml)

- Orchestrates multiple containers: Defines and configures multiple Docker containers for a multi-container application.
- Manages relationships: Sets up dependencies and links between containers.
- Defines networks: Creates custom networks for containers to communicate.
- Volumes: Mounts host directories into containers for data persistence.
- Environment variables: Sets environment variables for containers.
- Service configuration: Configures services (containers) with their images, ports, volumes, and dependencies.

Dockerfile

- Builds a single container image: Defines the steps to build a Docker image.
- Base image: Specifies the base image to start from (e.g., Ubuntu, Alpine).
- Instructions: Contains instructions like:
 - FROM: Sets the base image.
 - o RUN: Executes commands to install packages or configure the environment.
 - o COPY: Copies files from the host to the image.
 - WORKDIR: Sets the working directory inside the image.
 - o CMD or ENTRYPOINT: Sets the command to run when the container starts.

Comands for Docker-compose.yaml and DockerFile

- docker-compose up: Starts and runs the containers defined in the Docker Compose file.
 - -d: Runs the containers in detached mode (background).
 - --build: Builds the images before starting the containers.
 - --force-recreate: Recreates the containers, even if they already exist.
- docker-compose stop: Stops the running containers.
- docker-compose down: Stops and removes the containers, networks, and volumes.
- docker-compose rm: Removes stopped containers.
- docker-compose ps: Lists the containers defined in the Compose file.
- docker exec-it <name> bash: Now you're in an interactive Bash session where you can develop directly within