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WEEK 5 DAY 2: 23/10/25 [THURSDAY]

TASK : Dockerfile for Backend & Frontend

QUESTIONS/REFLECTIONS:

1. Explain how a Docker image is built: layers, cache, context.
   LAYER: each instruction in the dockerfile creates a new layer
   Ex: installing python- creates one layer, copying the code- creates another layer

   CACHE: So the docker resues the unchanged layers so it can build faster.

   CONTEXT: the folder built using docker build is sent to the docker engine so it knows what files to be included.

2. What is the difference between CMD and ENTRYPOINT?
   CMD: Default command to run when container starts.
   It can be overridden

   ENTRYPOINT: Default command to run when container starts, cannot be overridden.

   Ex: ENTRYPOINT ["python"]
                  CMD ["app.py"]
                  → Runs as python app.py

3. How is a Flask server inside a container accessed via browser? What ports need to be exposed?
   - Flask runs inside the container on **port 5000.**
   - But containers are **isolated**, so you need to **expose and map** ports.
   - Ex : docker run -p 5000:5000 myflaskapp
     Left side 5000 = host port (your computer)
     Right side 5000 = container port (Flask app)