```
FROM python:3.9-slim
# Configuración base
ENV PYTHONUNBUFFERED=1
WORKDIR /app
# Instalar dependencias del sistema (si son necesarias)
# RUN apt-get update && apt-get install -y <paquetes> && rm -rf /var/lib/apt/lists/*
# Actualizar herramientas de Python
RUN pip install --upgrade pip setuptools wheel
# Copiar e instalar dependencias primero para aprovechar la caché
COPY requirements.txt.
RUN pip install --no-cache-dir -r requirements.txt
# Copiar código fuente
COPY./app
# Configuración final # 🛘 Ajustado para coincidir con docker-compose.yml
ENV PYTHONPATH="/app"
EXPOSE 5000
CMD ["python", "watchers_wave.py"]
##### Dockerfile watcher_focus #####
FROM python:3.9-slim
ENV PYTHONUNBUFFERED=1
WORKDIR /app
RUN pip install --upgrade pip setuptools wheel
COPY requirements.txt.
RUN pip install --no-cache-dir -r requirements.txt
COPY./app
ENV PYTHONPATH="/app"
EXPOSE 6000
CMD ["python", "watcher_focus.py"]
```

##### Dockerfile watchers wave #####

```
##### Dockerfile malla_watcher #####

FROM python:3.9-slim

ENV PYTHONUNBUFFERED=1
WORKDIR /app

RUN pip install --upgrade pip setuptools wheel
COPY requirements.txt .
RUN pip install --no-cache-dir -r requirements.txt

COPY . /app

ENV PYTHONPATH="/app"
EXPOSE 5001

CMD ["python", "malla_watcher.py"]
```

##### Dockerfile ecu #####

FROM python:3.9-slim

ENV PYTHONUNBUFFERED=1 WORKDIR /app

RUN pip install --upgrade pip setuptools wheel COPY requirements.txt .
RUN pip install --no-cache-dir -r requirements.txt

COPY./app

ENV PYTHONPATH="/app"
## | Exponer el puerto del servicio (Añadido para claridad)
EXPOSE 8000

CMD ["python", "matriz\_ecu.py"]

```
##### Dockerfile harmony_controller (control) #####
FROM python:3.9-slim
# Dependencias del sistema para OpenCV
RUN apt-get update && apt-get install -y \
libgl1-mesa-glx \
libglib2.0-0 \
&& rm -rf /var/lib/apt/lists/*
WORKDIR /app
COPY requirements.txt.
RUN pip install --no-cache-dir -r requirements.txt
COPY./app
ENV PYTHONPATH="/app"
EXPOSE 7000
CMD ["python", "harmony_controller.py"]
##### Dockerfile agent_ai #####
FROM python:3.9-slim
WORKDIR /app
# Instalar compiladores para dependencias nativas
RUN apt-get update && apt-get install -y --no-install-recommends \
build-essential \
&& rm -rf /var/lib/apt/lists/*
COPY requirements.txt.
RUN pip install --no-cache-dir -r requirements.txt
COPY./app
```

# 🛮 Añadido para coherencia

CMD ["python", "agent\_ai.api.endpoints"]

EXPOSE 9000