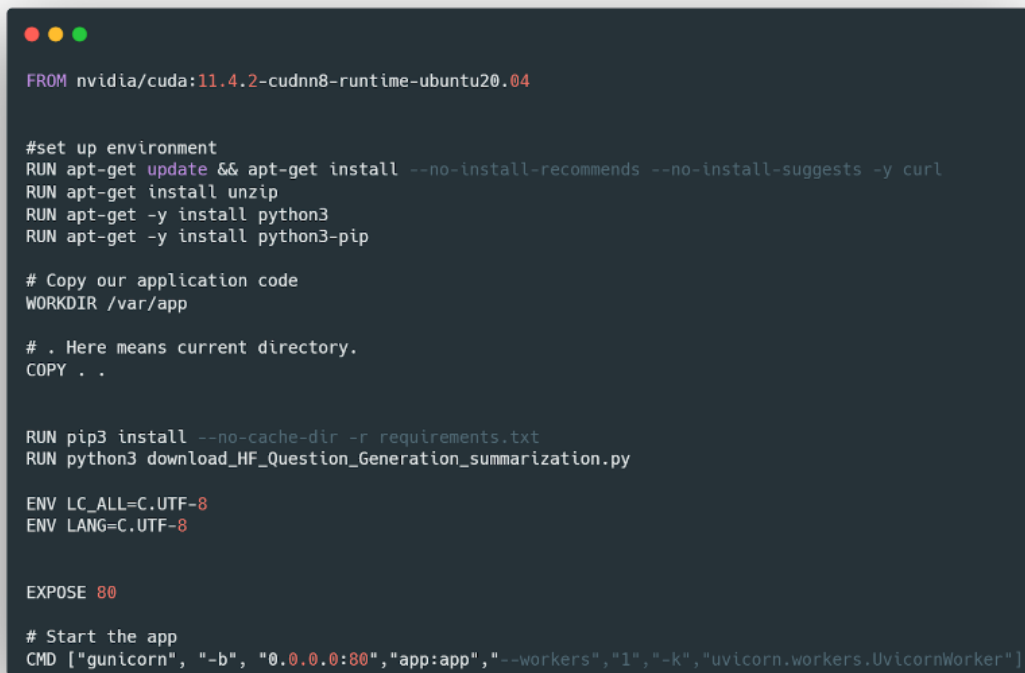


Ques 1 : Explain the below DockerFile



```
FROM nvidia/cuda:11.4.2-cudnn8-runtime-ubuntu20.04

#set up environment
RUN apt-get update && apt-get install --no-install-recommends --no-install-suggests -y curl
RUN apt-get install unzip
RUN apt-get -y install python3
RUN apt-get -y install python3-pip

# Copy our application code
WORKDIR /var/app

# . Here means current directory.
COPY . .

RUN pip3 install --no-cache-dir -r requirements.txt
RUN python3 download_HF_Question_Generation_summarization.py

ENV LC_ALL=C.UTF-8
ENV LANG=C.UTF-8

EXPOSE 80

# Start the app
CMD ["gunicorn", "-b", "0.0.0.0:80", "app:app", "--workers", "1", "-k", "uvicorn.workers.UvicornWorker"]
```

1. Here we have created a Docker file using “nvidia/cuda:11.4.2-cudnn8-runtime-ubuntu20.04” as the base image
2. Within the temporary container(image) created, we are updating the apt-get package manager and installing curl, unzip, python 3 and python3-pip
3. We are setting the working/default directory of the image to /var/app
4. Then we copy the contents from the local directory to the /var/app directory inside the temporary container(image)
5. Using the pip3 install command , we are installing python modules that are placed within the requirements.txt file. This installation happens within the temporary container(image)
6. We are running the python file download\_HF\_Question\_Generation\_summarization.py with in the temporary container(image)
7. We are setting 2 environment variables LC\_ALL and LANG to C.UTF-8
8. Using EXPOSE, we are letting know that the container waits for traffic on port 80
9. Finally we are providing defaults for the executing container using the CMD instruction where we are running the gunicorn command with certain attributes that should executed on startup when the docker image is run as a container.