

ASSIGNMENT-14

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"]
```

Explanation:

In the first line, we are using **FROM** command for setting the base image with **ubuntu OS** with a particular version. Then in the next four lines, we are updating and installing the necessary packages using the ubuntu package manager which is **apt-get**. We are updating the package manager and installing the package manager, unzip, python3 and python3-pip. Next, we are setting the working directory path. Using the command **WORKDIR**, then we are copying the files in the current directory to the working directory. Then we are installing pip3 and we are running the command python3 with file_name.py as our first file to be executed when running the application. We are setting the environment variable for the application using **ENV**. Which **LC_ALL** and **LANG**. We are using the **EXPOSE** command the expose our application to the outside world in port no 80. **CMD** command is the first command to start the app. And we are mentioning the port no in the command.