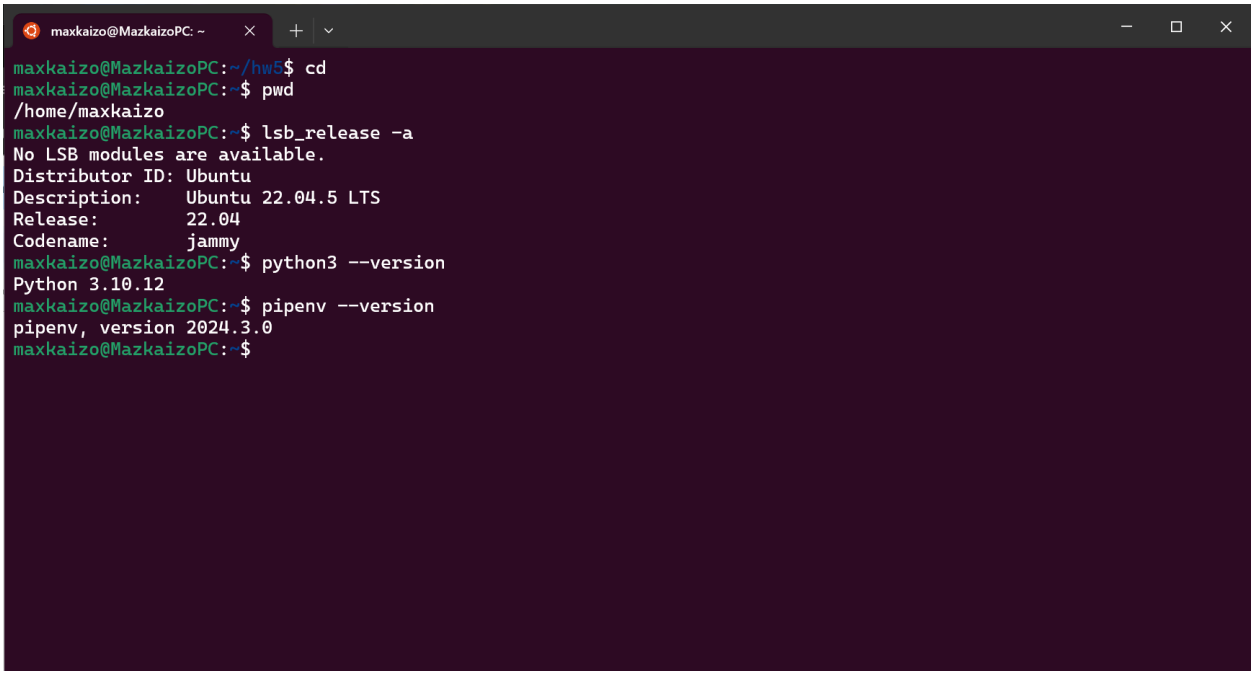
Question 1

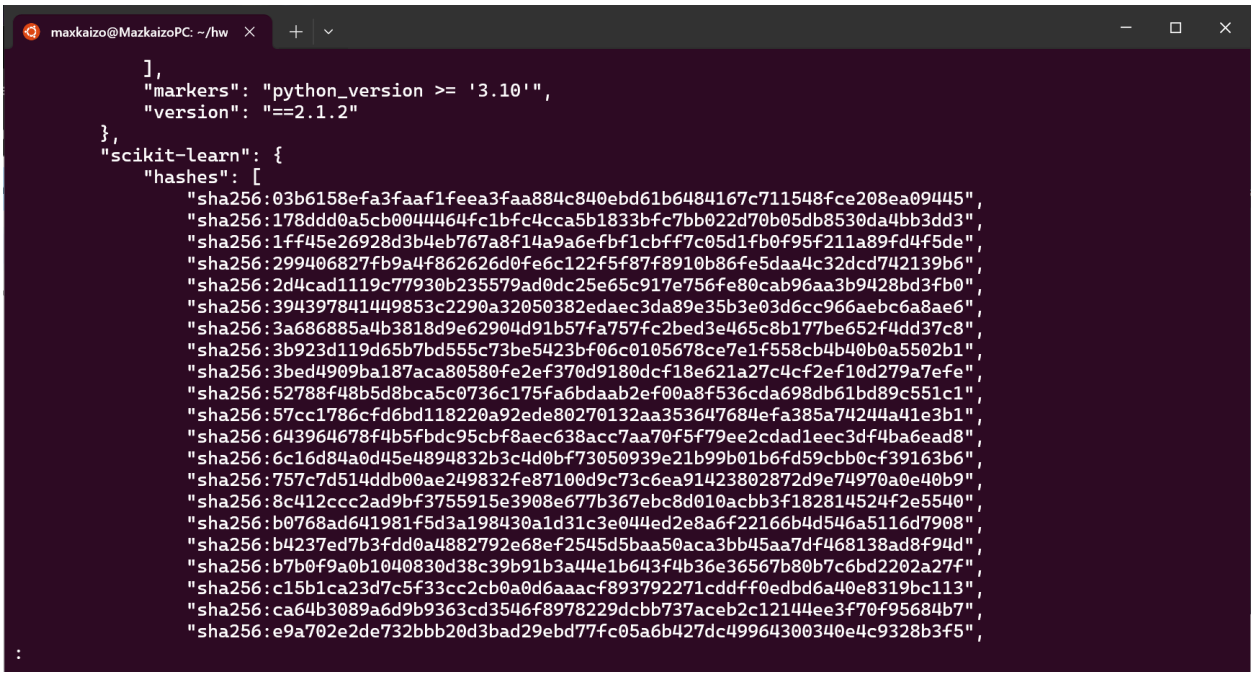
Install Pipenv
What's the version of pipenv you installed?
Use --version to find out



Question 2

Use Pipenv to install Scikit-Learn version 1.5.2
What's the first hash for scikit-learn you get in Pipfile.lock?
Note: you should create an empty folder for homework and do it there.

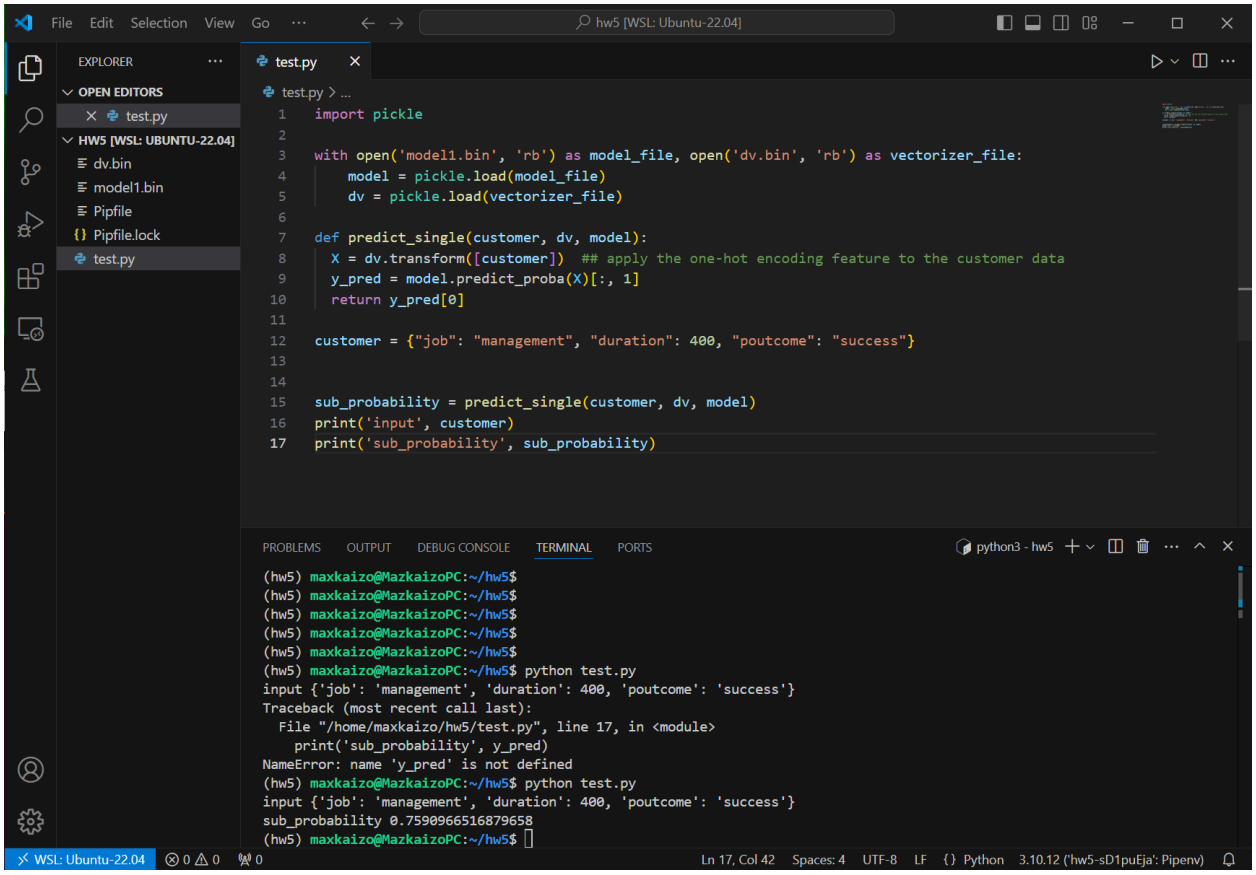
Sha256:03b6158efa3faaf1feea3faa884c840ebd61b6484167c711548fce208ea09445



Question 3

What's the probability that this client will get a subscription?

0.359
0.559
0.759
0.959

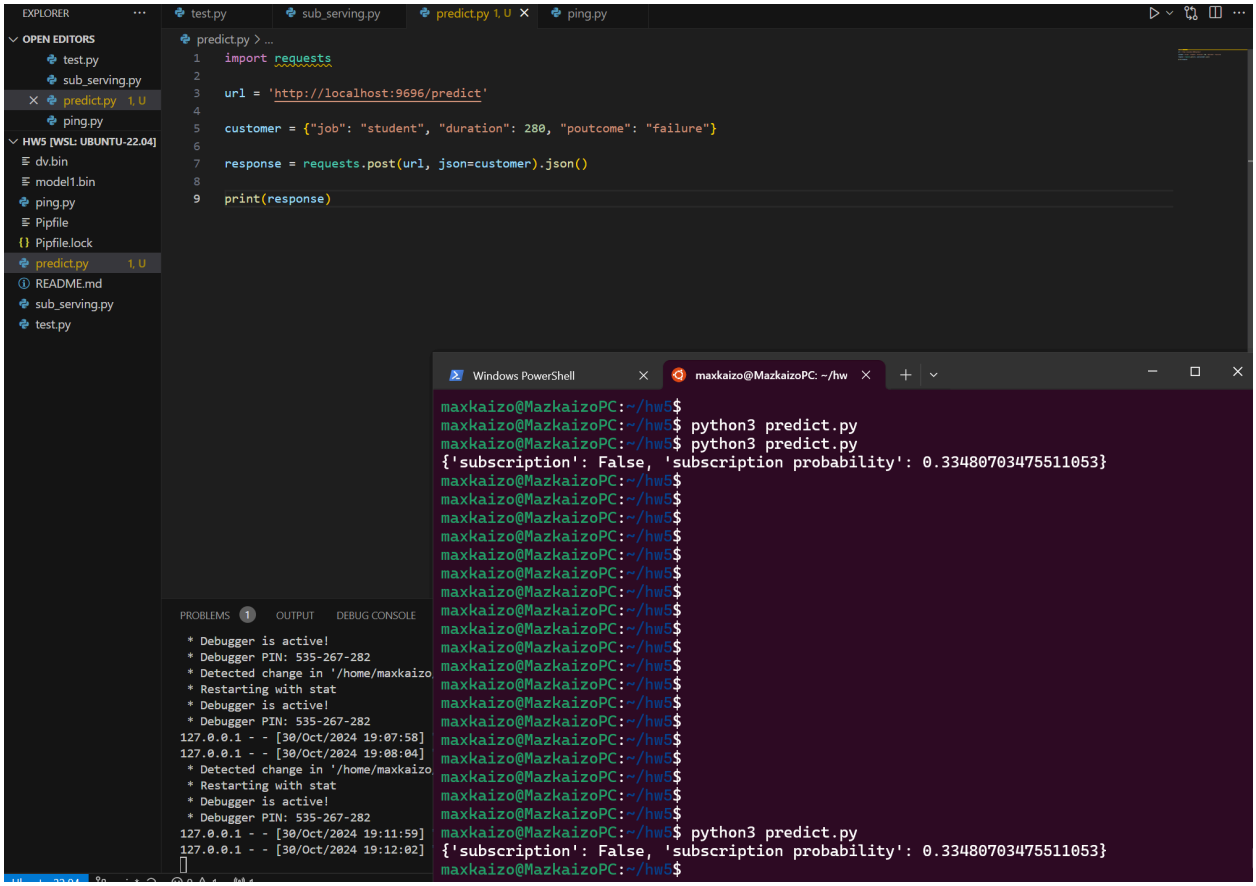


Question 4

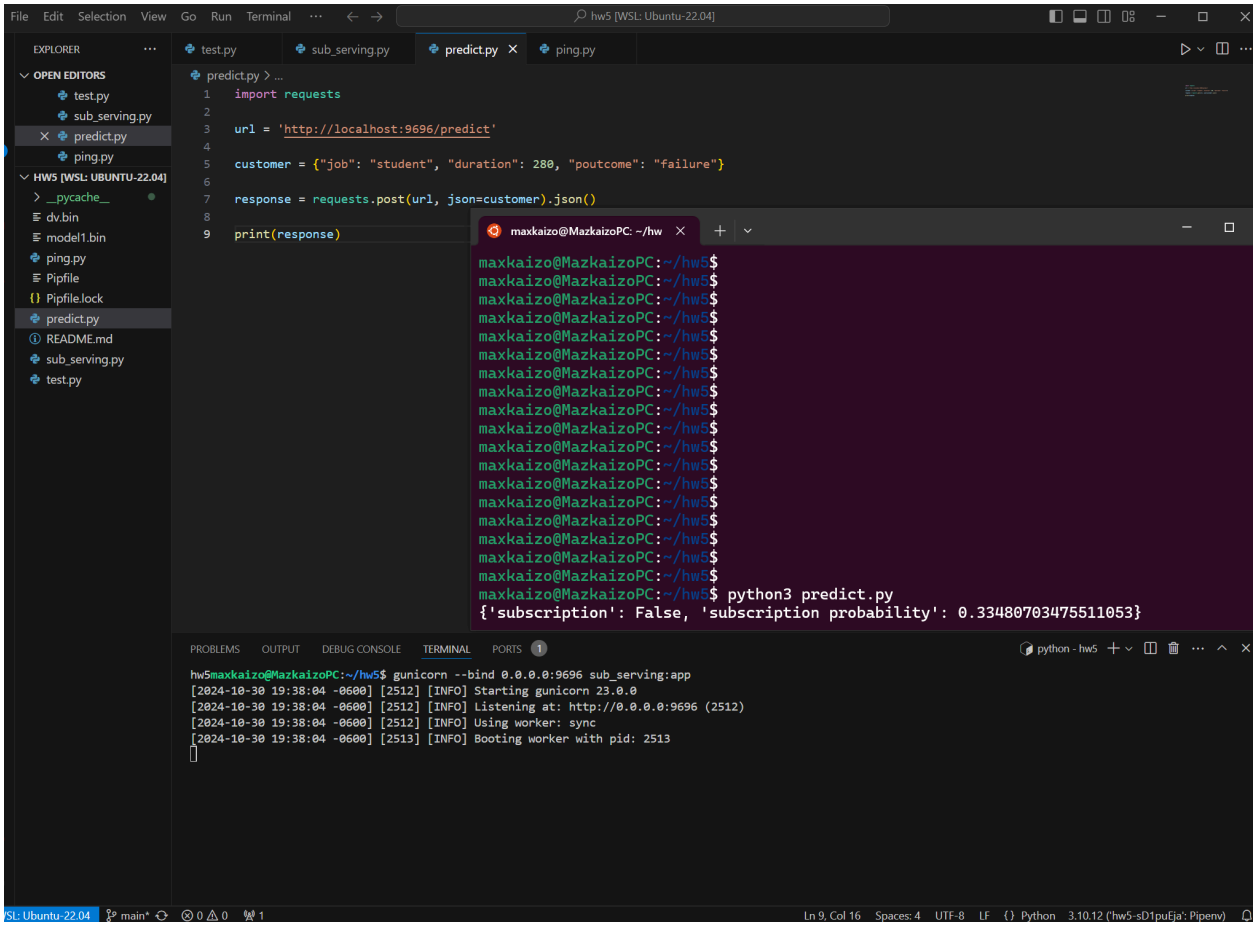
Now let's serve this model as a web service

Install Flask and gunicorn (or waitress, if you're on Windows)
Write Flask code for serving the model
Now score this client using requests:

Direct



With gunicorn

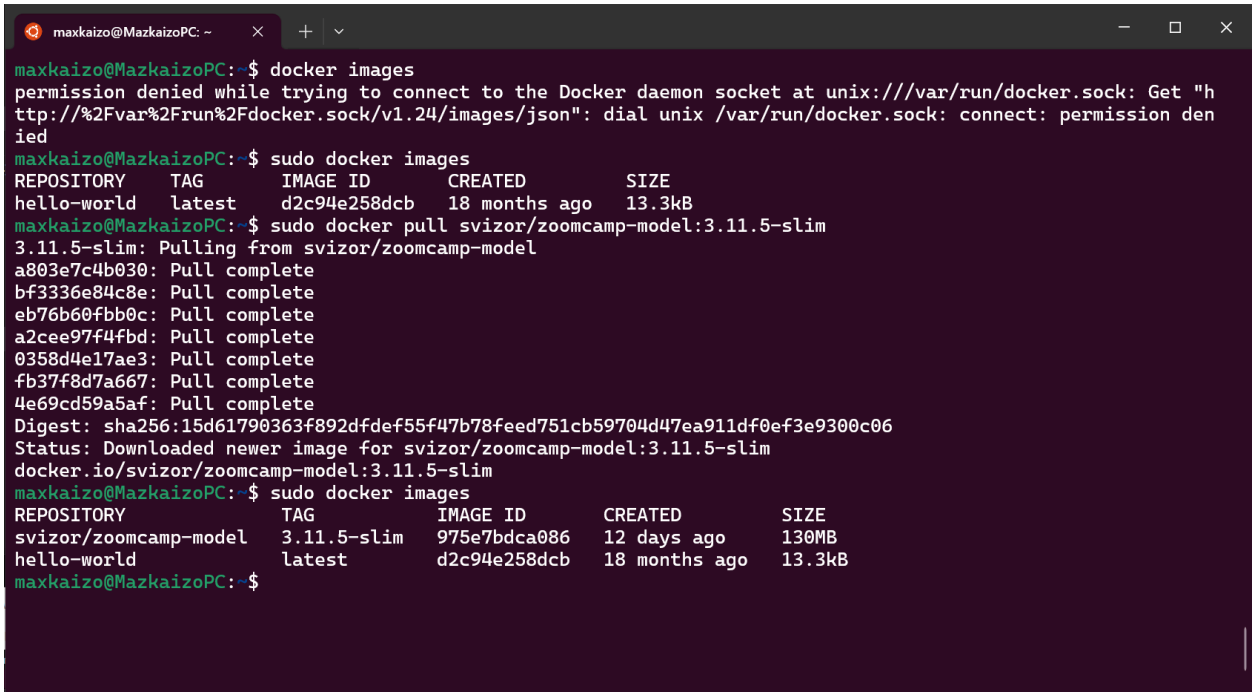


Question 5

Download the base image svizor/zoomcamp-model:3.11.5-slim. You can easily make it by using docker pull command.

So what's the size of this base image?

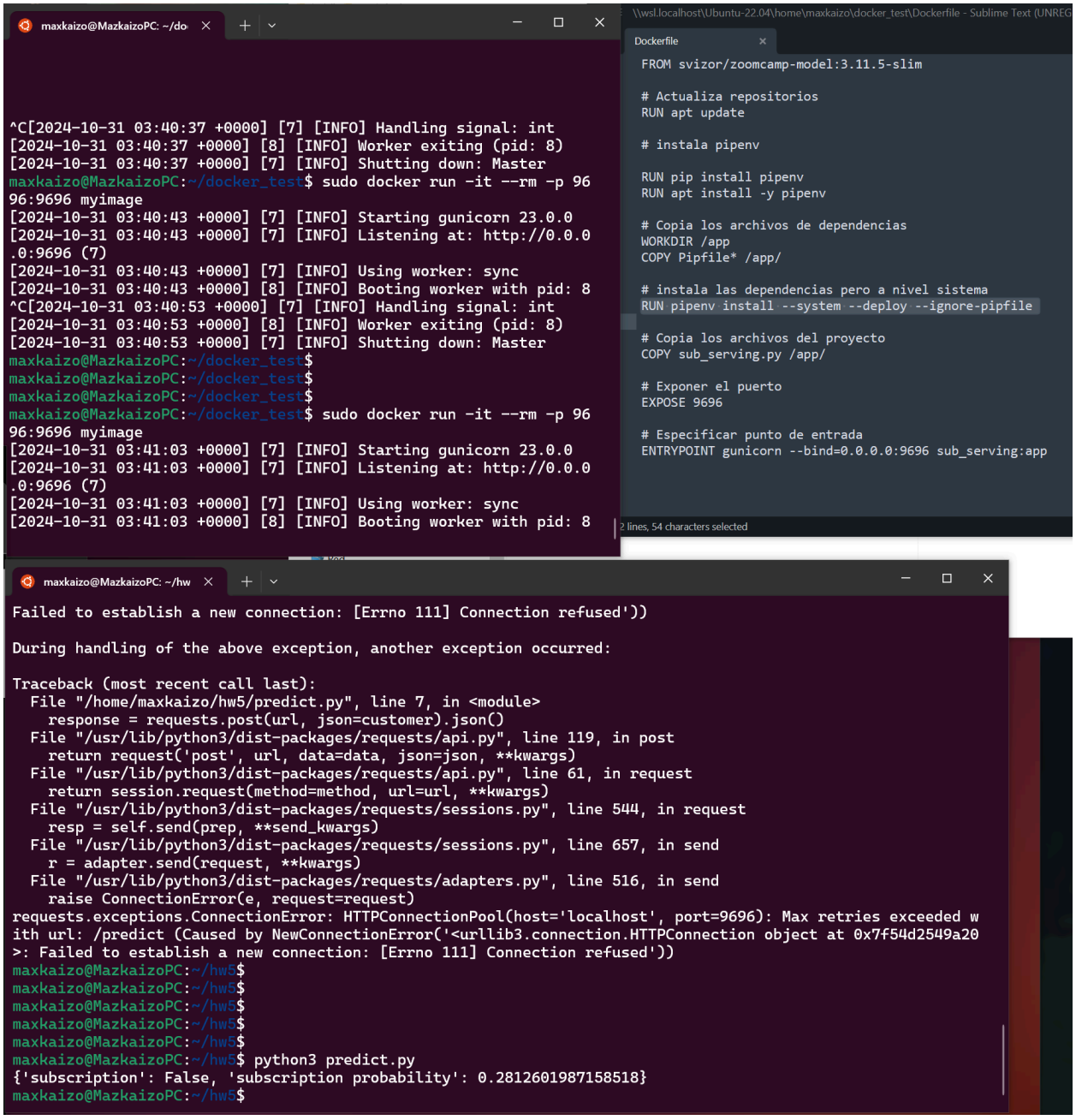
45 MB
130 MB
245 MB
330 MB



Question 6

What's the probability that this client will get a subscription now?

0.287
0.530
0.757
0.960


maxkaizo@MazkaizoPC: ~/do
^C[2024-10-31 03:40:37 +0000] [7] [INFO] Handling signal: int
[2024-10-31 03:40:37 +0000] [8] [INFO] Worker exiting (pid: 8)
[2024-10-31 03:40:37 +0000] [7] [INFO] Shutting down: Master
maxkaizo@MazkaizoPC:~/docker_test$ sudo docker run -it --rm -p 96
96:9696 myimage
[2024-10-31 03:40:43 +0000] [7] [INFO] Starting gunicorn 23.0.0
[2024-10-31 03:40:43 +0000] [7] [INFO] Listening at: http://0.0.0
.0:9696 (7)
[2024-10-31 03:40:43 +0000] [7] [INFO] Using worker: sync
[2024-10-31 03:40:43 +0000] [8] [INFO] Booting worker with pid: 8
^C[2024-10-31 03:40:53 +0000] [7] [INFO] Handling signal: int
[2024-10-31 03:40:53 +0000] [8] [INFO] Worker exiting (pid: 8)
[2024-10-31 03:40:53 +0000] [7] [INFO] Shutting down: Master
maxkaizo@MazkaizoPC:~/docker_test$
maxkaizo@MazkaizoPC:~/docker_test$
maxkaizo@MazkaizoPC:~/docker_test$
maxkaizo@MazkaizoPC:~/docker_test$ sudo docker run -it --rm -p 96
96:9696 myimage
[2024-10-31 03:41:03 +0000] [7] [INFO] Starting gunicorn 23.0.0
[2024-10-31 03:41:03 +0000] [7] [INFO] Listening at: http://0.0.0
.0:9696 (7)
[2024-10-31 03:41:03 +0000] [7] [INFO] Using worker: sync
[2024-10-31 03:41:03 +0000] [8] [INFO] Booting worker with pid: 8
\\wsl.localhost\Ubuntu-22.04\home\maxkaizo\docker_test\Dockerfile - Sublime Text (UNREG
Dockerfile
FROM svizor/zoomcamp-model:3.11.5-slim
Actualiza repositorios
RUN apt update
instala pipenv
RUN pip install pipenv
RUN apt install -y pipenv
Copia los archivos de dependencias
WORKDIR /app
COPY Pipfile* /app/
instala las dependencias pero a nivel sistema
RUN pipenv install --system --deploy --ignore-pipfile
Copia los archivos del proyecto
COPY sub_serving.py /app/
Exponer el puerto
EXPOSE 9696
Especificar punto de entrada
ENTRYPOINT gunicorn --bind=0.0.0.0:9696 sub_serving:app
2 lines, 54 characters selected
maxkaizo@MazkaizoPC: ~/hw
Failed to establish a new connection: [Errno 111] Connection refused'))
During handling of the above exception, another exception occurred:
Traceback (most recent call last):
File "/home/maxkaizo/hw5/predict.py", line 7, in <module>
response = requests.post(url, json=customer).json()
File "/usr/lib/python3/dist-packages/requests/api.py", line 119, in post
return request('post', url, data=data, json=json, **kwargs)
File "/usr/lib/python3/dist-packages/requests/api.py", line 61, in request
return session.request(method=method, url=url, **kwargs)
File "/usr/lib/python3/dist-packages/requests/sessions.py", line 544, in request
resp = self.send(prep, **send_kwargs)
File "/usr/lib/python3/dist-packages/requests/sessions.py", line 657, in send
r = adapter.send(request, **kwargs)
File "/usr/lib/python3/dist-packages/requests/adapters.py", line 516, in send
raise ConnectionError(e, request=request)
requests.exceptions.ConnectionError: HTTPConnectionPool(host='localhost', port=9696): Max retries exceeded w
ith url: /predict (Caused by NewConnectionError('<urllib3.connection.HTTPConnection object at 0x7f54d2549a20
>: Failed to establish a new connection: [Errno 111] Connection refused'))
maxkaizo@MazkaizoPC:~/hw5$
maxkaizo@MazkaizoPC:~/hw5$
maxkaizo@MazkaizoPC:~/hw5$
maxkaizo@MazkaizoPC:~/hw5$
maxkaizo@MazkaizoPC:~/hw5$
maxkaizo@MazkaizoPC:~/hw5$ python3 predict.py
{'subscription': False, 'subscription probability': 0.2812601987158518}
maxkaizo@MazkaizoPC:~/hw5$