

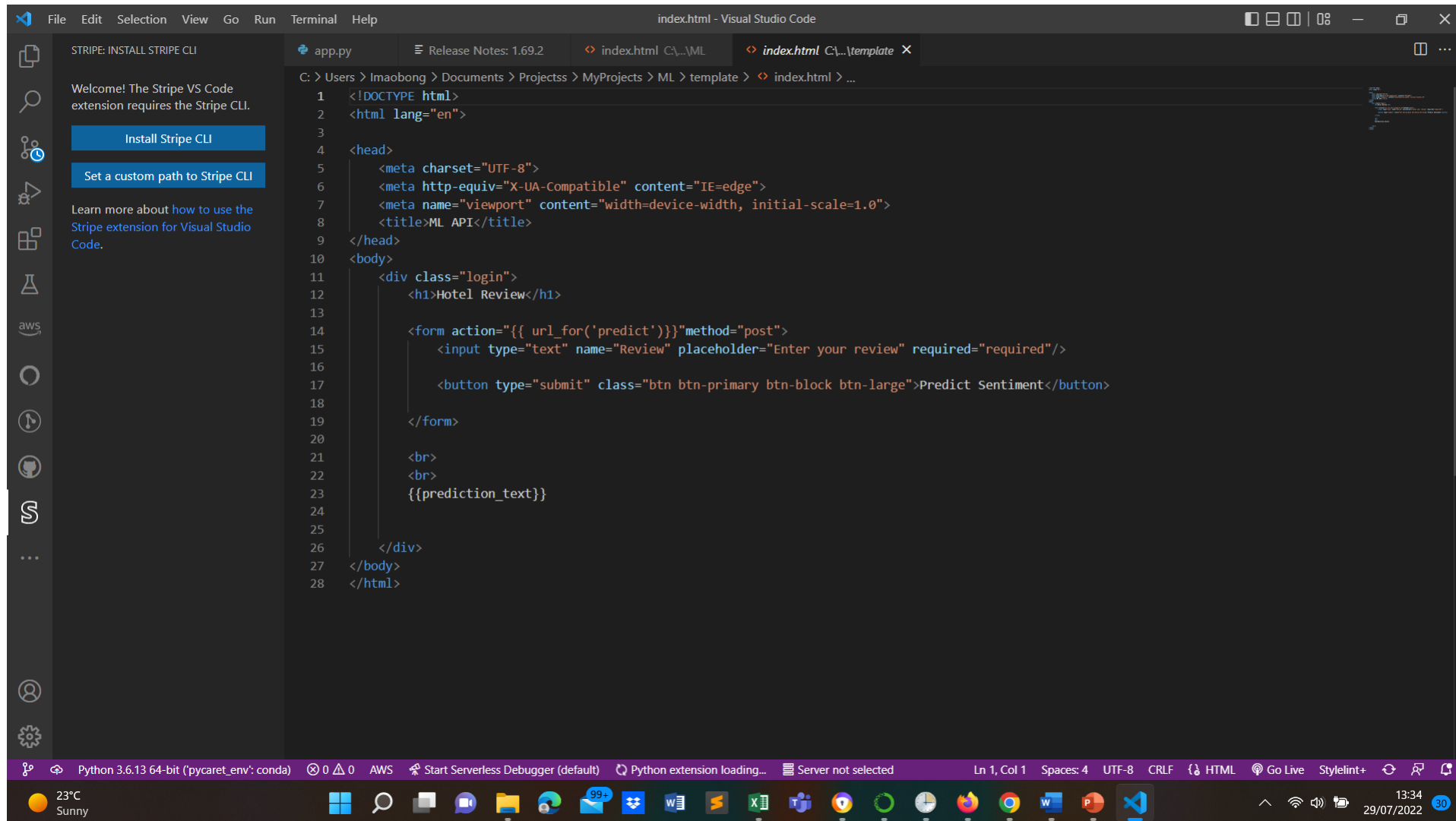
DATA GLACIER (WEEK 4)
DEPLOYMENT ON FLASK

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BATCH NO: LISUM11: 30 June - 30 Sept 2022

SUBMITTED TO GITHUB REPOSITORY

SNAPSHOTS



SNAPSHOTS: I performed EDA on the Dataset and developed a model

The screenshot shows a Jupyter Notebook running in a web browser at localhost:8892. The notebook is titled 'model' and shows the following code and output:

```
In [36]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import pickle

from sklearn.preprocessing import StandardScaler
from sklearn.metrics import classification_report, confusion_matrix
```

```
In [2]: review = pd.read_csv('hotel_review.csv')
```

```
In [3]: review.head()
```

Out[3]:

	User_ID	Description	Browser_Used	Device_Used	Is_Response
0	id10326	The room was kind of clean but had a VERY stro...	Edge	Mobile	not happy
1	id10327	I stayed at the Crown Plaza April -- April --...	Internet Explorer	Mobile	not happy
2	id10328	I booked this hotel through Hotwire at the low...	Mozilla	Tablet	not happy
3	id10329	Stayed here with husband and sons on the way t...	InternetExplorer	Desktop	happy
4	id10330	My girlfriends and I stayed here to celebrate ...	Edge	Tablet	not happy

```
In [4]: review.isnull().sum()
```

Out[4]:

```
User_ID      0
Description  0
Browser_Used  0
Device_Used  0
Is_Response  0
dtype: int64
```

The bottom of the image shows a Windows taskbar with the date 29/07/2022 and time 13:35.

SNAPSHOTS: My final dataset before building the model

Documents/Projectss/MyProjects x model - Jupyter Notebook x +

localhost:8892/notebooks/Documents/Projectss/MyProjects/ML/model.ipynb

Google Addons Store Amazon.co.uk AliExpress Booking.com Hotels.com Facebook YouTube Dragon Bundle - Te...

jupyter model Last Checkpoint: an hour ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Not Trusted Python 3

```
return 'Positive'
```

```
review['Sentiment'] = review['Polarity'].apply(getAnalysis)
```

```
#show the dataframe
```

```
review
```

Out[22]:

	User_ID	Description	Browser_Used	Device_Used	Is_Response	Rating	Polarity	Subjectivity	Sentiment
0	id10326	The room was kind of clean but had a VERY stro...	Edge	Mobile	not happy	1	0.346190	0.643228	Positive
1	id10327	I stayed at the Crown Plaza April -- April -...	Internet Explorer	Mobile	not happy	1	0.042363	0.528986	Positive
2	id10328	I booked this hotel through Hotwire at the low...	Mozilla	Tablet	not happy	1	0.124969	0.527284	Positive
3	id10329	Stayed here with husband and sons on the way t...	InternetExplorer	Desktop	happy	0	0.718500	0.739000	Positive
4	id10330	My girlfriends and I stayed here to celebrate ...	Edge	Tablet	not happy	1	0.117192	0.533254	Positive
...
38927	id49253	We arrived late at night and walked in to a ch...	Edge	Desktop	happy	0	0.135526	0.606871	Positive
38928	id49254	The only positive impression is location and p...	InternetExplorer	Mobile	not happy	1	0.289711	0.523122	Positive
38929	id49255	Traveling with friends for shopping and a show...	Firefox	Mobile	not happy	1	0.124628	0.516636	Positive
38930	id49256	The experience was just ok. We paid extra for ...	Chrome	Desktop	not happy	1	0.330000	0.448889	Positive
38931	id49257	The Westin is a wonderfully restored grande da...	Mozilla	Desktop	happy	0	1.000000	1.000000	Positive

38932 rows x 9 columns

```
In [23]: #Visualize the sentiment distribution
```

```
sns.countplot(review['Sentiment'])
```

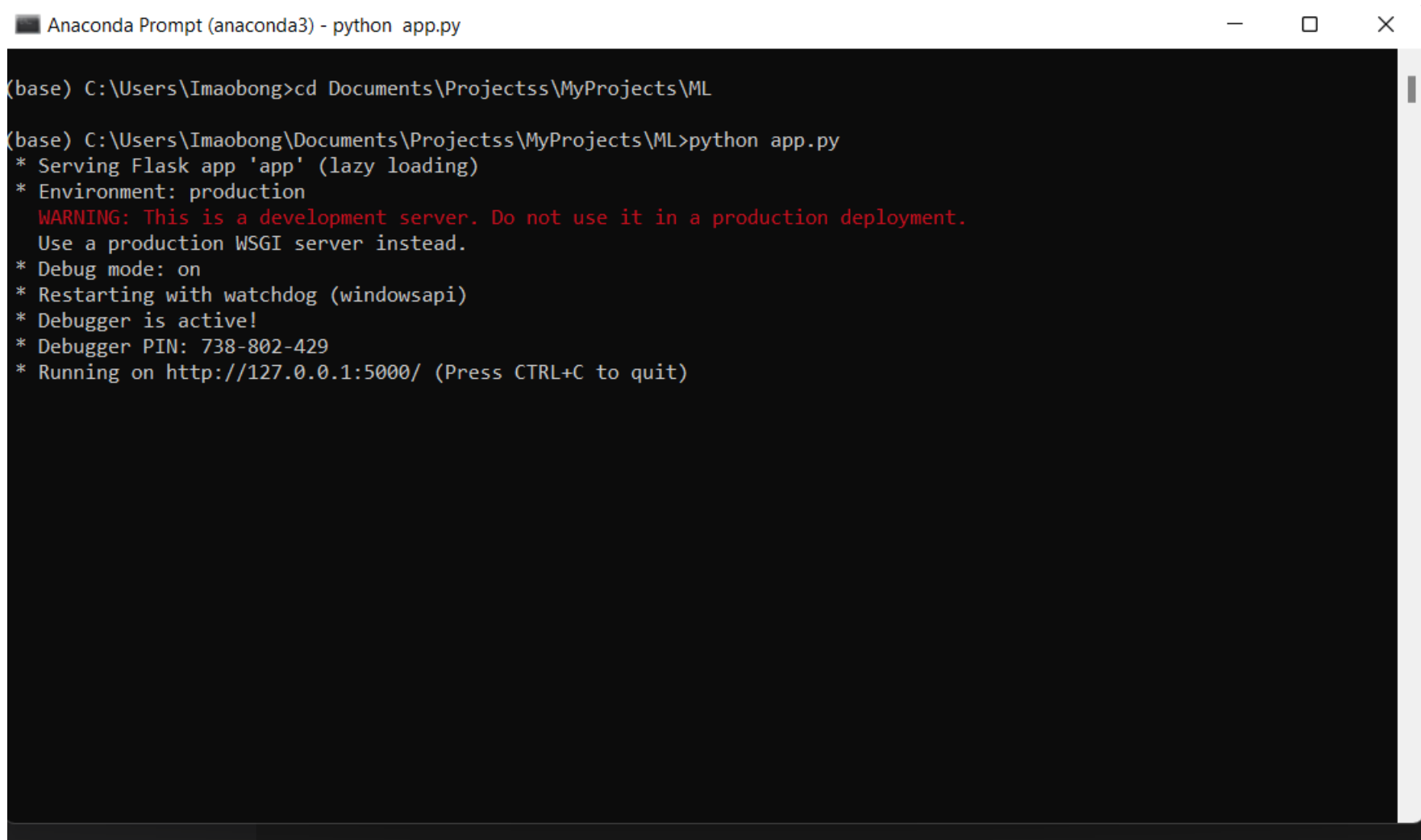
```
plt.title('Sentiment')
```

```
plt.show()
```

23°C Sunny

13:36 29/07/2022

SNAPSHOTS: Using Anaconda CMD to run the app and get the local IP

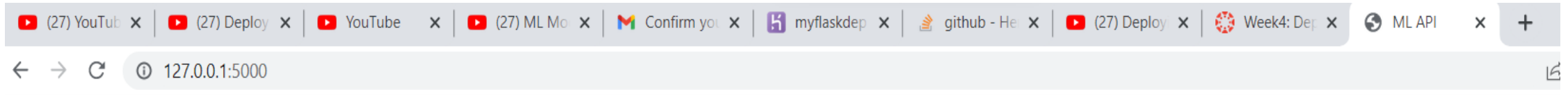


```
Anaconda Prompt (anaconda3) - python app.py

(base) C:\Users\Imaobong>cd Documents\Projectss\MyProjects\ML

(base) C:\Users\Imaobong\Documents\Projectss\MyProjects\ML>python app.py
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Restarting with watchdog (windowsapi)
* Debugger is active!
* Debugger PIN: 738-802-429
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

SNAPSHOTS: The GUI of the Model

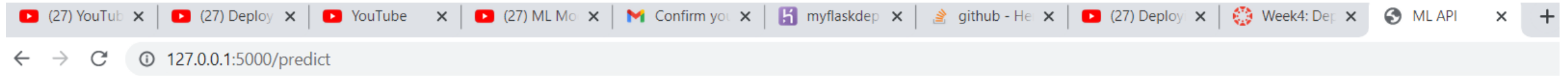


Hotel Review

Enter your review

Predict Sentiment

SNAPSHOTS



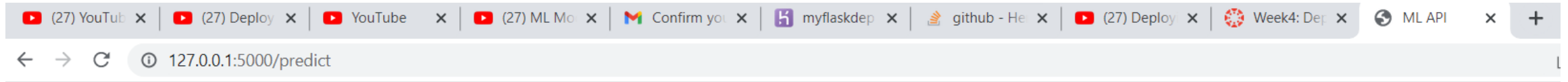
Hotel Review

I hate everything about the

Predict Sentiment

The customer was Negative

SNAPSHOTS



Hotel Review

It is a nice place to be.

Predict Sentiment

The customer was Positive