Creating and Debugging the ML App

Steps followed to Debug the app:

Step_1: - The first bug found out was the word cloud version. We need to get the correct version of it and place it in the folder of the computer/laptop to work on

Step_2: - The second bug found out was Sklearn as the VS code C ++ version was not accepted to install or create an application using it. So, we need to update the VS Code version.
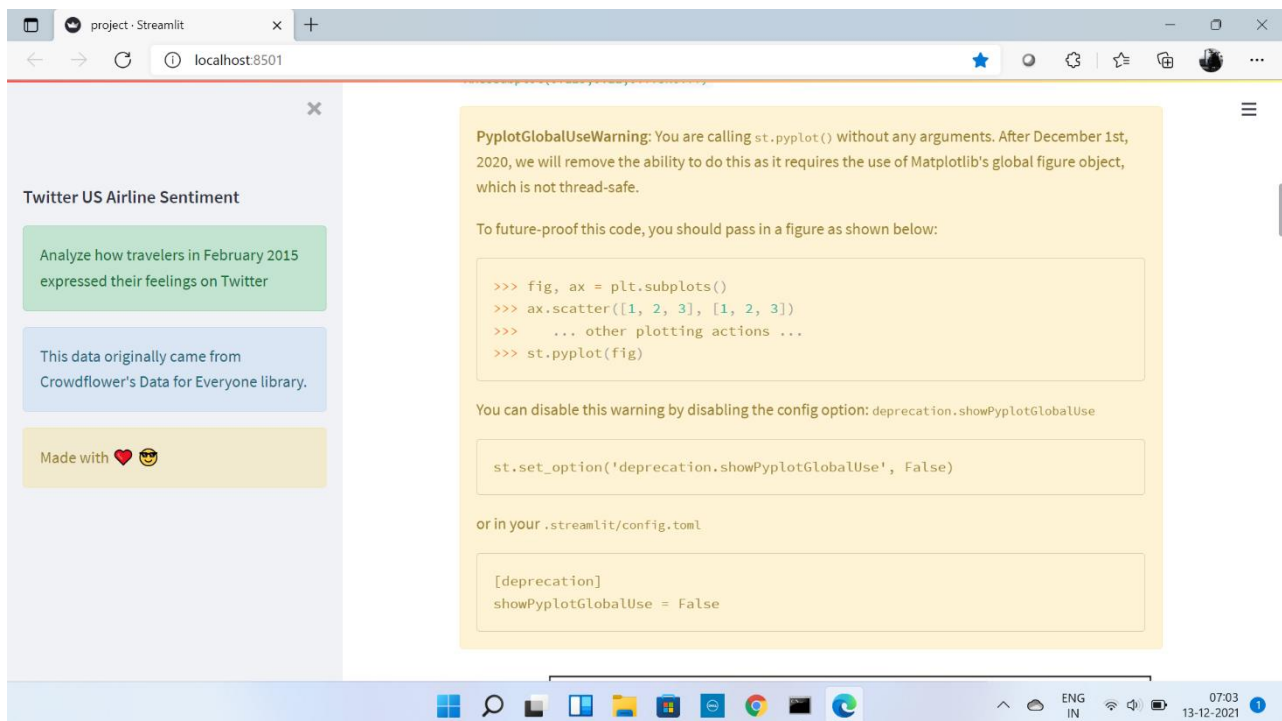
Step_3: - The third bug was the visualization of images as the code comprises of importing the images and make the app look great. So, we need to import

"From PIL import Image" and need to change the letter case.

Step_4: - The plotly was updated in the year of 2020. So, we need to set the option as to get rid of the warning.

Step_5: - Run the project.py using Streamlit.

The bugs were displayed here:

Twitter US Airline Sentiment

Analyze how travelers in February 2015 expressed their feelings on Twitter

This data originally came from Crowdflower's Data for Everyone library.

Made with ❤️ 🤓

PyplotGlobalUseWarning: You are calling `st.pyplot()` without any arguments. After December 1st, 2020, we will remove the ability to do this as it requires the use of Matplotlib's global figure object, which is not thread-safe.

To future-proof this code, you should pass in a figure as shown below:

```
>>> fig, ax = plt.subplots()
>>> ax.scatter([1, 2, 3], [1, 2, 3])
>>>    ... other plotting actions ...
>>> st.pyplot(fig)
```

You can disable this warning by disabling the config option: `deprecation.showPyplotGlobalUse`

```
st.set_option('deprecation.showPyplotGlobalUse', False)
```

or in your `.streamlit/config.toml`

```
[deprecation]
showPyplotGlobalUse = False
```

Top window:

```
● airline_sentiment.ipynb - Innomatics - Visual Studio Code

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER                    data_app.py
INNOMATICS                  Change kernel for 'ml_app_streamlit\airline_sentiment.ipynb'
  > Analysis Task           Python 3.10.0 64-bit  ~\AppData\Local\Programs\Python\Python310\python.exe - Curre...  Suggested
  > Assignments             base (Python 3.9.7)  ~\anaconda3\python.exe                                           Conda Env
  > LinkedIN
  > Project_Flask
  > Hackathon               # Since we want to implement sentiment analyser, we will consider only three columns
  > ML Project              # 'airline_sentiment', 'airline', 'text'
  v ml_app_streamlit
    > __pycache__           tweet_df = tweet_df.loc[:, ['airline_sentiment', 'airline', 'text']]
    v data
      Tweets.csv
    v img                   2. Exploratory Data Analysis
      airline.jpeg
      neg.png
      pos.png               tweet_df.head()
      twitter_img.jpg
    > pickle
      airline_sentimen...            airline_sentiment        airline                          text
      create_wordclou...
      data_app.py
      ml_app.py
      project.py
    > Scrap          PROBLEMS  17    OUTPUT   TERMINAL   JUPYTER   DEBUG CONSOLE
      Innomatics-Intern...  /whyso/OneDrive/Desktop/Innomatics/ml_app_streamlit/project.py
      Python_Interview_...  C:\Users\whyso\AppData\Local\Programs\Python\Python310\python.exe
                            Traceback (most recent call last):
                              File "c:\Users\whyso\OneDrive\Desktop\Innomatics\ml_app_streamlit\project.py", line 5, in <module>
                                import ml_app as ma
                              File "c:\Users\whyso\OneDrive\Desktop\Innomatics\ml_app_streamlit\ml_app.py", line 3, in <module>
                                from sklearn.linear_model import LogisticRegression
                            ModuleNotFoundError: No module named 'sklearn'
  > OUTLINE                 PS C:\Users\whyso\OneDrive\Desktop\Innomatics>
```

Bottom window:

```
project.py - ml_app_streamlit - Visual Studio Code

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER                    airline_sentiment.ipynb    project.py
ML_APP_STREAMLIT            project.py > main
  v __pycache__         1   import streamlit as st
      create_wordclou... 2
      data_app.cpytho... 3   import data_app as da
      ml_app.cpython-... 4
  v data                5   import ml_app as ma
      Tweets.csv        6
  v img                 7
      airline.jpeg      8   def main():
      neg.png           9       # EDA
      pos.png          10       da.main()
      twitter_img.jpg  11
  v pickle             12       st.header("LogisticRegression Predictor :sunglasses:")
      countvectorizer... 13
      logit_model.pkl  14       # Predictor
      airline_sentiment.i... 15   ma.main()
      create_wordcloud... 16
      data_app.py      17
      ml_app.py        18
      project.py       19   if(__name__ == '__main__'):
                       20       main()

                  PROBLEMS  10   OUTPUT   TERMINAL   JUPYTER   DEBUG CONSOLE
                       this_file = in_memory_file_manager.add(data, mimetype, image_id)
                     File "C:\Users\whyso\AppData\Local\Programs\Python\Python310\lib\site-packages\streamlit\in_memory_file_manager.py", line
                     261, in add
                       file_id = _calculate_file_id(content, mimetype, file_name=file_name)
                     File "C:\Users\whyso\AppData\Local\Programs\Python\Python310\lib\site-packages\streamlit\in_memory_file_manager.py", line
                     72, in _calculate_file_id
                       filehash.update(bytes(mimetype.encode()))
                     AttributeError: 'NoneType' object has no attribute 'encode'
  > OUTLINE            PS C:\Users\whyso\OneDrive\Desktop\Innomatics\ml_app_streamlit>
Python 3.10.0 64-bit   4  6          Ln 11, Col 1   Spaces: 4   UTF-8   CRLF   Python   kite: not installed
```

The working app screenshots were attached here:

Plotly - Tweet Sentiment Count

Airline Count

Word Cloud

Choose the sentiment?

- (●) positive
- (○) negative

LogisticRegression Predictor 😎

Sidebar

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Made with Streamlit by Harsha Vardhan

Word Cloud

Choose the sentiment?

◯ positive

◉ negative

LogisticRegression Predictor 😎

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Twitter ✓
@Twitter

What's happening?!

◎ Everywhere 🔗 about.twitter.com ◎ Born March 21 🗓 Joined February 2007

Enter your tweet

Cool

Prediction:

Positive Tweet 😎

Made with Streamlit