How to use the Python code for Annotations?

Python must be downloaded in your device to run the python file sent

- <mark>Steps to Install Python:</mark>
  1. Download Python from the official Python website:
     https://www.python.org/downloads/
  2. Follow the installation instructions and make sure to check the box that says **"Add Python to PATH"** during installation.
  3. During installation, it will ask to "Customize Installation". Don't choose that option. It's recommended to leave the default settings if you're unsure.
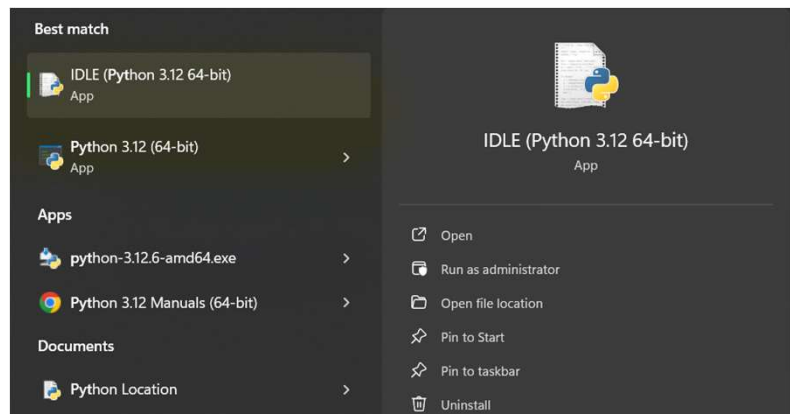
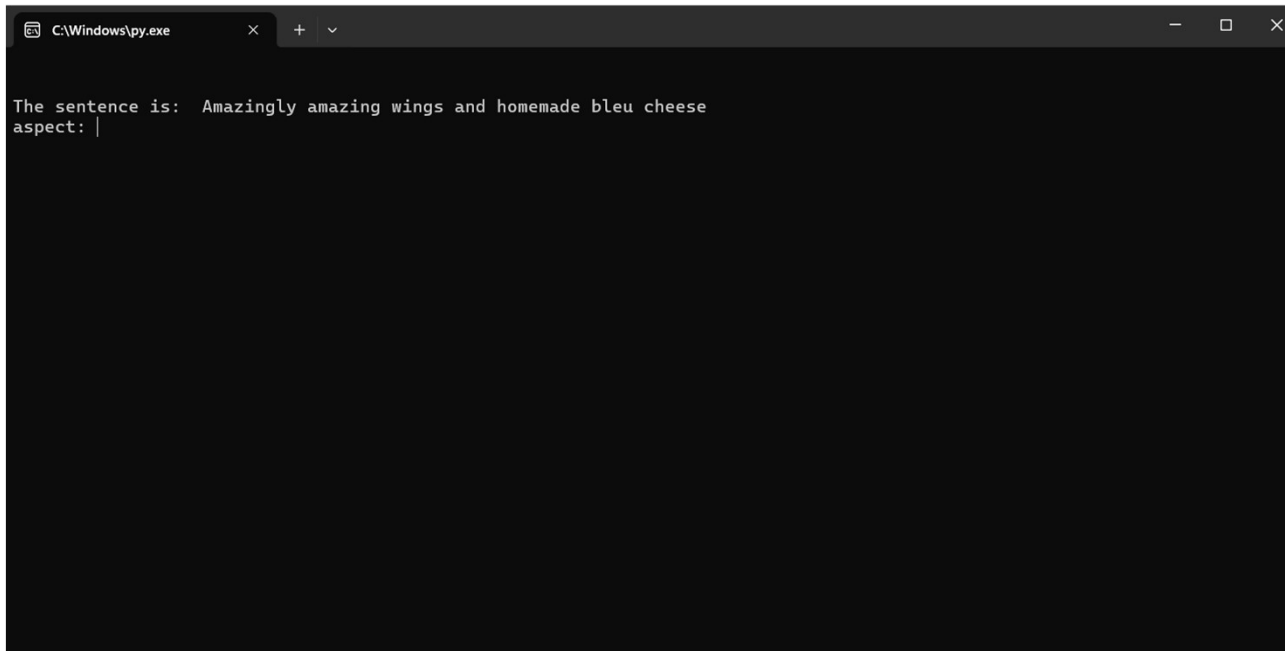After installation, you can type 'python' on the search bar to check

- **Things to remember:**

  1. **The CSV file that I had sent must be saved in the SAME folder as the python file that I sent. This is very important.**
  2. **Kindly not rename any of the files as that would cause error while running the code**

- **Steps to run the code:**

OPTION 1

1. **Save the CSV file and the python file in the same folder and directly click on the python file to open/run it.**

It should look like this. The sentence would be different based on the dataset that I have sent. If this method works, then continue using it this way.

- How to go through the code:

First read the sentence, identify the first aspect and type the aspect word. Press Enter.

```
The sentence is:  The food is good , but it takes a very long time to come out
aspect: food
```

Then, it will give you the option to enter the opinion term. Type the opinion term and press enter.

```
The sentence is:  The food is good , but it takes a very long time to come out
aspect: food
opinion: good
```

After pressing enter, it will show a table for the aspect-category. Select the appropriate entity and attribute from both the tables. For example, here I wanted to save the aspect category as "Food-Quality" so I pressed '2' for the first input and '3' for the second input. [As '2' corresponds to 'Food' in the first table while '3' corresponds to 'Quality' in the second table]. Press Enter after that.

```
The sentence is:  The food is good , but it takes a very long time to come out
aspect: food
opinion: good

  entity_label                    attribute_label
1    Restaurant           1            General
2          Food           2              Price
3        Drinks           3            Quality
4      Ambience           4    Style & Options
5       Service           5      Miscellaneous
6      Location

Enter the entity label (1-6):
2
Enter the attribute label (1-5):
3
```

- After pressing enter, the program will ask you whether you wish to annotate another triplet from the same sentence. Read the same sentence again and answer accordingly if you wish to annotate another triplet in the same sentence.

- In the below case, there is one more triplet that we can make in the same sentence so type 'y' [without the single quotes]. If you think there are no more triplets that can be extracted, then enter 'n'. [NOTE: 2 or more triplets can have the same aspect or opinion term, that is okay. Secondly, the aspect term and the opinion term can be multi-word phrases as well. It doesn't have to be a single word every time.]

```
The sentence is:  The food is good , but it takes a very long time to come out
aspect: food
opinion: good

  entity_label                    attribute_label
1    Restaurant           1           General
2          Food           2             Price
3         Drinks          3           Quality
4       Ambience          4    Style & Options
5        Service          5      Miscellaneous
6       Location

Enter the entity label (1-6):
2
Enter the attribute label (1-5):
3

-----------------------------------------------------------------------------------------

SENTENCE:   The food is good , but it takes a very long time to come out
Do you wish to add another entry for the same sentence? Type 'y' or 'n':
|
```

- After typing 'y', you get the same thing again which you can fill accordingly like I have done below. This can continue till you think all the triplets in a sentence have been recorded.

- After that you can enter 'n' to end annotating for that particular sentence. Press enter.

```
SENTENCE:  The food is good , but it takes a very long time to come out
Do you wish to add another entry for the same sentence? Type 'y' or 'n':
y

--------------------------------------------------------------------------------

The sentence is:  The food is good , but it takes a very long time to come out
aspect: food
opinion: very long time

   entity_label                    attribute_label
1    Restaurant          1              General
2          Food          2                Price
3        Drinks          3              Quality
4      Ambience          4    Style & Options
5       Service          5       Miscellaneous
6      Location

Enter the entity label (1-6):
5
Enter the attribute label (1-5):
1

--------------------------------------------------------------------------------

SENTENCE:  The food is good , but it takes a very long time to come out
Do you wish to add another entry for the same sentence? Type 'y' or 'n':
n
```

- After you enter 'n' the code creates a new JSON file in the same folder as the csv file and python code. The annotations get saved in the newly created JSON file in the accurate format. You would not need to change the JSON file as it automatically gets stored in the correct format.

| annotations1 | 10/14/2024 2:42 PM | JSON Source File | 1 KB |

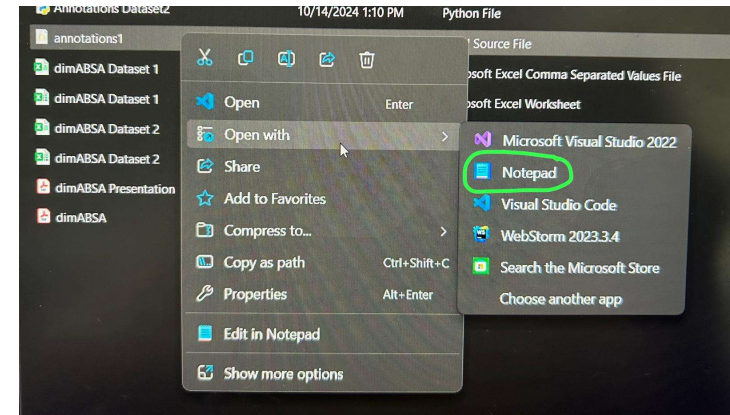- After that you would get a new sentence to annotate. Follow the same steps again for the new sentence.

```
The sentence is:  Friendly , attentive staff
aspect: |
```

- The JSON file should look like this:

You should be able to open the JSON file using a code editor like VS code or simply just using Notepad ☺

As you keep annotating, this JSON file keeps updating itself so you would not need to manually do anything to the JSON file.

Incase you can't do all annotations in one sitting, complete annotating the current sentence completely and close the code. The program would resume from the same part once you run the code again (The steps that I mentioned above). Thus, you can annotate according to your availability at the time.

- Steps to run the code:

OPTION 2 [If option 1 doesn't work and the python file doesn't open]

1. Save the CSV file and Python code in the same folder.
2. Type 'IDLE' on the search bar and open

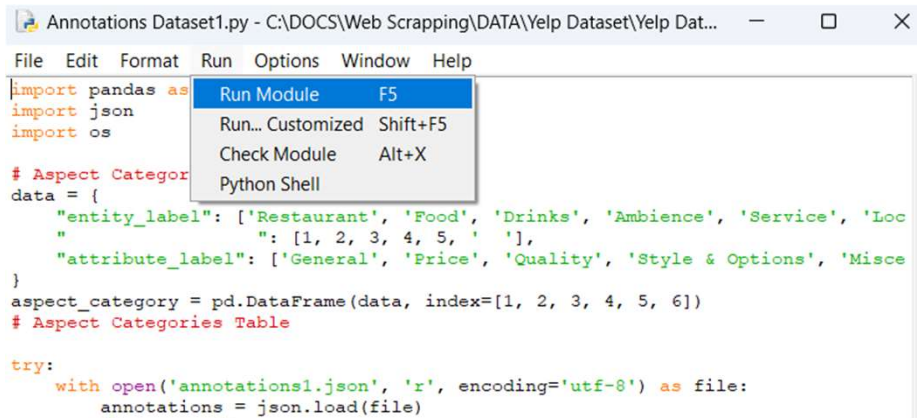1. It would open python shell. It should look like this:
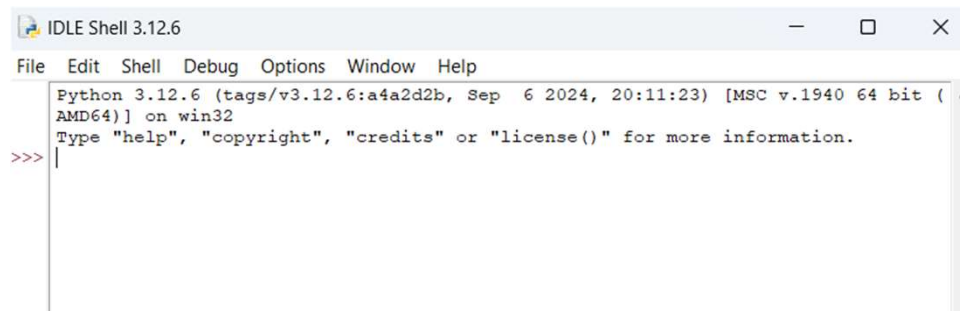
- Click on the 'file' option in the menu bar. Click 'open'
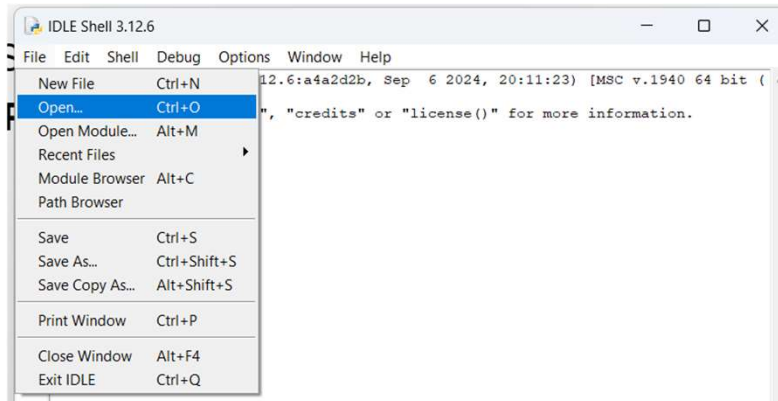
- Using 'open', find the folder where you saved the python file and the csv file. Click on the python file to open it on IDLE.
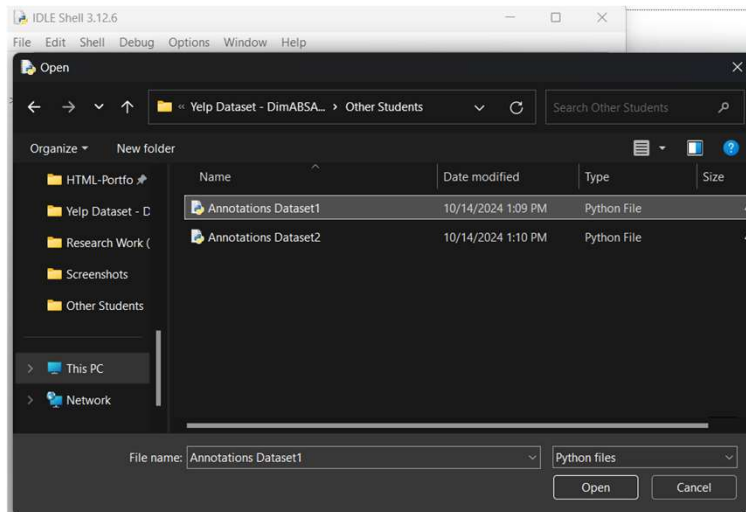
- Doing that will open my python code. Click on the 'run' option in the menu bar. Click on 'Run Module'
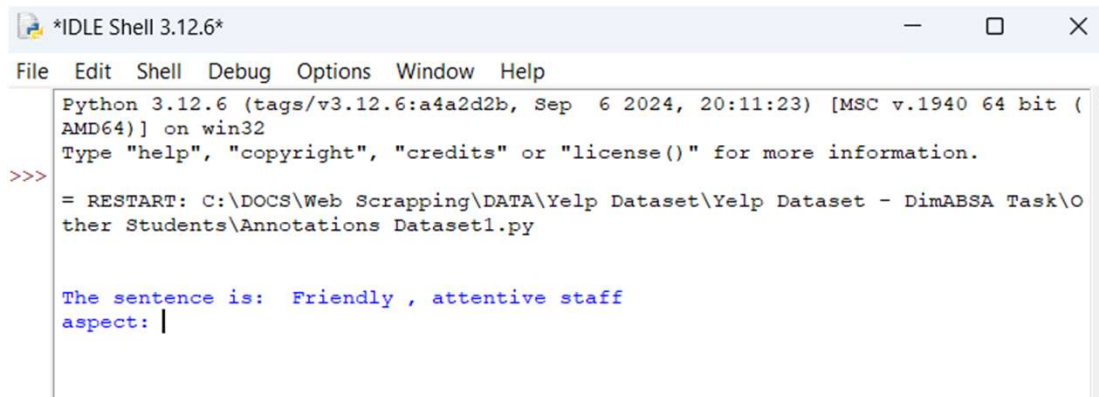
- Now, the code will run the same way as earlier but in IDLE.

Please check slides 5, 6, 7, 8 & 9 to see how the code works

Note: If you are familiar with code editors like 'VS Code' or 'PyCharm' then feel free to use them. Otherwise, not :)

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