

Advanced Python Programming

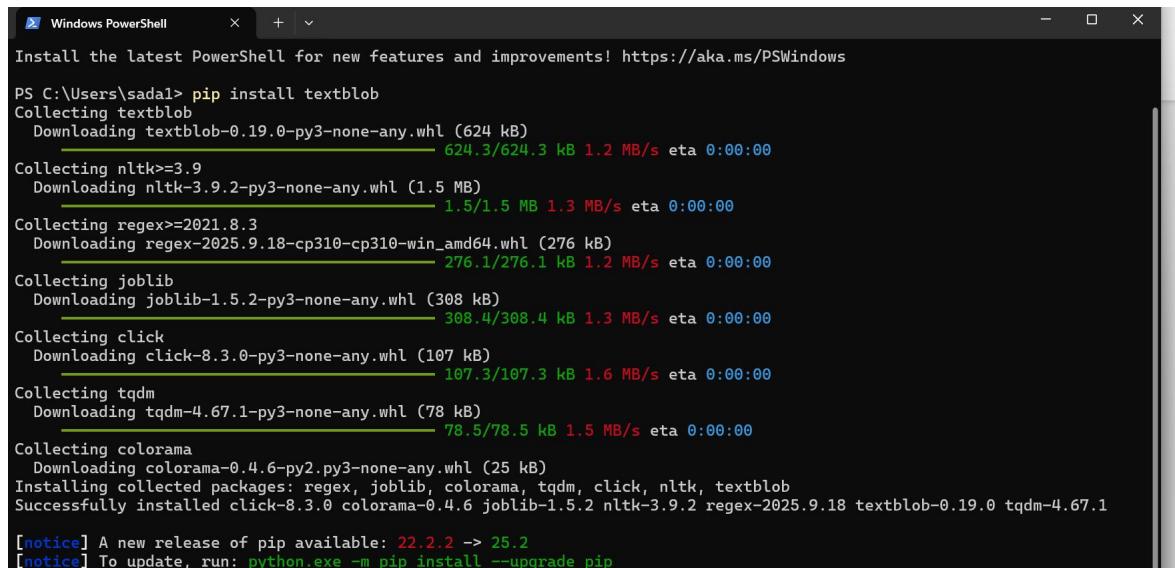
Fall Semester 2025-26

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Lab 18

Sentimental Analysis:

Package Installation:



```
Windows PowerShell

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\sadal> pip install textblob
Collecting textblob
  Downloading textblob-0.19.0-py3-none-any.whl (624 kB)
    624.3/624.3 kB 1.2 MB/s eta 0:00:00
Collecting nltk>=3.9
  Downloading nltk-3.9.2-py3-none-any.whl (1.5 MB)
    1.5/1.5 MB 1.3 MB/s eta 0:00:00
Collecting regex>=2021.8.3
  Downloading regex-2025.9.18-cp310-cp310-win_amd64.whl (276 kB)
    276.1/276.1 kB 1.2 MB/s eta 0:00:00
Collecting joblib
  Downloading joblib-1.5.2-py3-none-any.whl (308 kB)
    308.4/308.4 kB 1.3 MB/s eta 0:00:00
Collecting click
  Downloading click-8.3.0-py3-none-any.whl (107 kB)
    107.3/107.3 kB 1.6 MB/s eta 0:00:00
Collecting tqdm
  Downloading tqdm-4.67.1-py3-none-any.whl (78 kB)
    78.5/78.5 kB 1.5 MB/s eta 0:00:00
Collecting colorama
  Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Installing collected packages: regex, joblib, colorama, tqdm, click, nltk, textblob
Successfully installed click-8.3.0 colorama-0.4.6 joblib-1.5.2 nltk-3.9.2 regex-2025.9.18 textblob-0.19.0 tqdm-4.67.1
[notice] A new release of pip available: 22.2.2 -> 25.2
[notice] To update, run: python.exe -m pip install --upgrade pip
```

Code:

The screenshot shows a code editor interface with a dark theme. At the top, there is a search bar and several tabs. The active tab is 'Python1.py 1' with the file path 'C:\Users\sada1\OneDrive\Desktop> Python1.py > ...'. Below the tabs, the code is displayed:

```
1  from textblob import TextBlob
2  text = input("Enter a sentence: ")
3  blob = TextBlob(text)
4  print("Polarity:", blob.sentiment.polarity)
5  print("Subjectivity:", blob.sentiment.subjectivity)
6  if blob.sentiment.polarity > 0:
7      print("Sentiment: Positive")
8  elif blob.sentiment.polarity < 0:
9      print("Sentiment: Negative")
10 else:
11     print("Sentiment: Neutral")
12
```

Below the code editor is a terminal window titled 'Python'. It shows the following output:

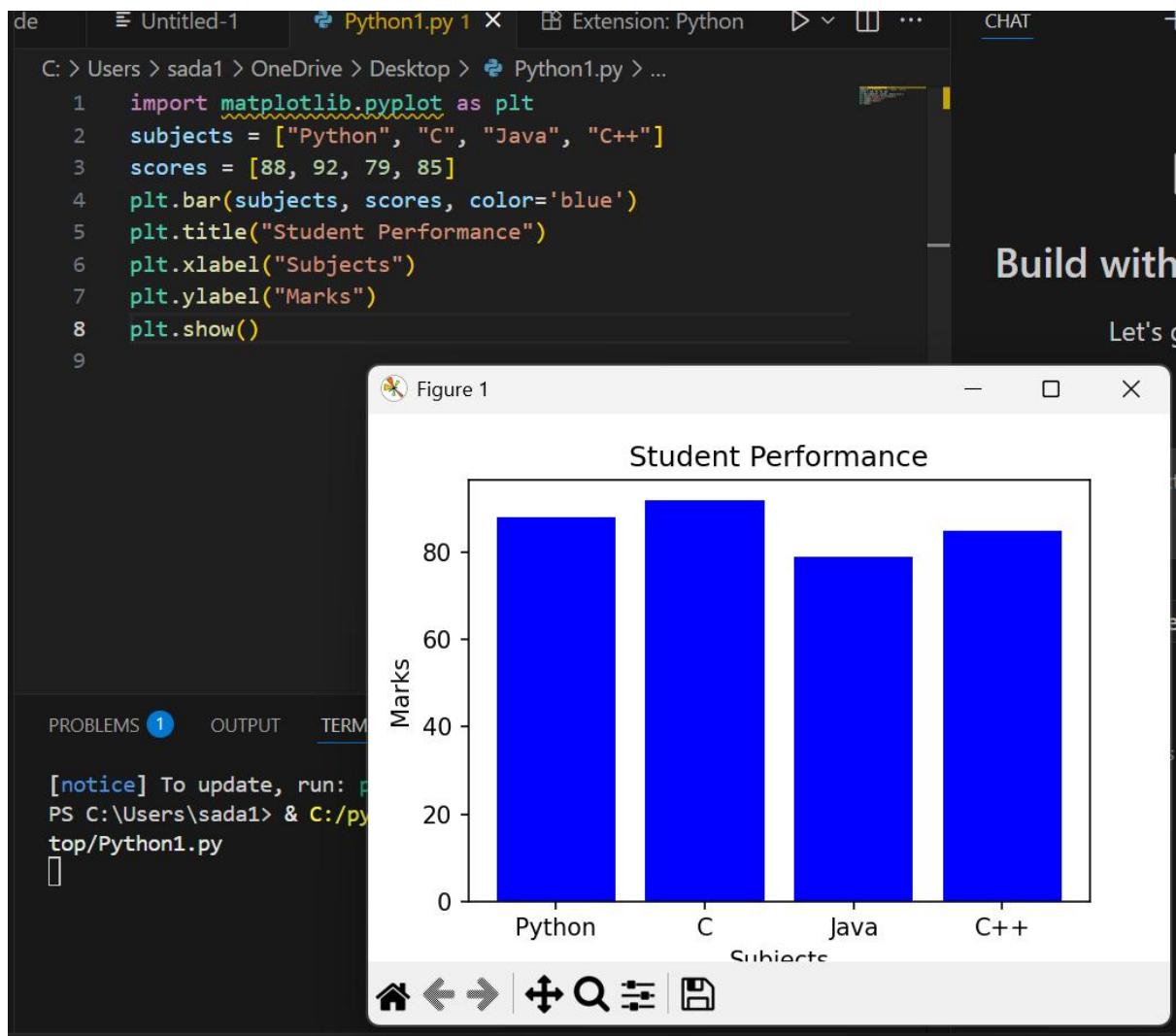
```
Sentiment: Negative
PS C:\Users\sada1> & C:/python/python.exe c:/Users/sada1/OneDrive/Desktop/Python1.py
Enter a sentence: Python is a programming language that is widely used
in web applications, software development, data science, and machine
learning
Polarity: -0.1
Subjectivity: 0.4
Sentiment: Negative
PS C:\Users\sada1>
```

Bar Graph Visualization

Package Installation:

```
PS C:\Users\sada1> pip install matplotlib
Collecting matplotlib
  Downloading matplotlib-3.10.7-cp310-cp310-win_amd64.whl (8.1 MB)
[██████████] 8.1/8.1 MB 1.3 MB/s eta 0:00:00
Collecting packaging>=20.0
  Downloading packaging-25.0-py3-none-any.whl (66 kB)
[██████████] 66.5/66.5 kB 1.2 MB/s eta 0:00:00
Collecting fonttools>=4.22.0
  Downloading fonttools-4.60.1-cp310-cp310-win_amd64.whl (2.3 MB)
[██████████] 2.3/2.3 MB 1.3 MB/s eta 0:00:00
Collecting cycler>=0.10
  Downloading cycler-0.12.1-py3-none-any.whl (8.3 kB)
Collecting kiwisolver>=1.3.1
  Downloading kiwisolver-1.4.9-cp310-cp310-win_amd64.whl (73 kB)
[██████████] 73.7/73.7 kB 1.4 MB/s eta 0:00:00
Collecting pyparsing>=3
  Downloading pyparsing-3.2.5-py3-none-any.whl (113 kB)
```

Code:



QR Code Generation

Package Installation:

The screenshot shows a terminal window with a dark theme. The tabs at the top are 'PROBLEMS 1', 'OUTPUT', 'TERMINAL', and '...'. The 'TERMINAL' tab is selected. The command entered is:

```

PS C:\Users\sada1> python.exe -m pip install --upgrade pip

```

The terminal output shows the process of upgrading pip:

```

Requirement already satisfied: pip in c:\python\lib\site-packages (22.2.2)
Collecting pip
  Downloading pip-25.2-py3-none-any.whl (1.8 MB)
    1.8/1.8 MB 1.3 MB/s eta 0:00:00
Installing collected packages: pip
Attempting uninstall: pip
  Found existing installation: pip 22.2.2
  Uninstalling pip-22.2.2:
    Successfully uninstalled pip-22.2.2
Successfully installed pip-25.2
PS C:\Users\sada1>

```

