

1. Write a Python code to calculate the sum of odd and even numbers in a given list using GitHub Copilot along with VS Code. Use zero shot prompting

Prompt : Generate a Python function to accept the list of numbers from the user and calculate the sum of odd and even numbers in a given list.

```
task1.py > ...
1  def sum_odd_even():
2      numbers = input("Enter numbers separated by spaces: ")
3      num_list = [int(num) for num in numbers.split()]
4      even_sum = sum(num for num in num_list if num % 2 == 0)
5      odd_sum = sum(num for num in num_list if num % 2 != 0)
6      print(f"Sum of even numbers: {even_sum}")
7      print(f"Sum of odd numbers: {odd_sum}")
8
9  # Example usage
10 sum_odd_even()
```

Output :

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  Python
Enter numbers separated by spaces: 3 4 5 6 7
Sum of even numbers: 10
Sum of odd numbers: 15
PS C:\Users\ssrir\OneDrive\Documents\AIAC\labtest> 
```

2. Write a Python code for given a list of integers, remove duplicates and print the sorted result. GitHub Copilot along with VS Code. Use one shot prompting.

Prompt : Generate a Python function that accepts list of integers from the user and removes duplicates and print the sorted result.

Example : list of integers [4,6 ,8,2,4,7,8,4,5,8,9,2,1,2,3] : sorted list [1,2,3,4,5,6,7,8,9]

```
task2.py > ...
1 def process_integers():
2     user_input = input("Enter a list of integers separated by commas: ")
3     int_list = [int(x.strip()) for x in user_input.split(',')]
4     unique_sorted = sorted(set(int_list))
5     print("Sorted list:", unique_sorted)
6
7 # Example usage
8 if __name__ == "__main__":
9     process_integers()
```

Output :

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  Python + - [ ] [X] ... [ ]
Enter a list of integers separated by commas: 4,5,6,4,3,5,7,7,5,3,4,78,54,33,57,3
Sorted list: [3, 4, 5, 6, 7, 33, 54, 57, 78]
PS C:\Users\ssrir\OneDrive\Documents\AIAC\labtest> |
```


3. Write a Python function that converts the temperature between Celsius, Fahrenheit, and Kelvin based on user choice. Use the Cursor AI tool. Use few shot prompting.

Prompt : Write a Python function that converts the temperature between Celsius, Fahrenheit, and Kelvin based on user choice. And display the output. Example 1: 373.0C = 703.40F Example 2 : 100.0C = 373.15K Example 3 : 54.0F = 12.22C Example 4 : 543.0F = 557.04K Example 5 : 373.15K = 100.00C

labtest > task3.py > ...

```
1 def convert_temperature():
2     print("Temperature Converter")
3     print("Choose conversion type:")
4     print("1. Celsius to Fahrenheit")
5     print("2. Celsius to Kelvin")
6     print("3. Fahrenheit to Celsius")
7     print("4. Fahrenheit to Kelvin")
8     print("5. Kelvin to Celsius")
9     print("6. Kelvin to Fahrenheit")
10    choice = input("Enter your choice (1-6): ")
11
12    if choice == '1':
13        c = float(input("Enter temperature in Celsius: "))
14        f = c * 9/5 + 32
15        print(f"{c:.2f}C = {f:.2f}F")
16    elif choice == '2':
17        c = float(input("Enter temperature in Celsius: "))
18        k = c + 273.15
19        print(f"{c:.2f}C = {k:.2f}K")
20    elif choice == '3':
21        f = float(input("Enter temperature in Fahrenheit: "))
22        c = (f - 32) * 5/9
23        print(f"{f:.2f}F = {c:.2f}C")
24    elif choice == '4':
25        f = float(input("Enter temperature in Fahrenheit: "))
26        k = (f - 32) * 5/9 + 273.15
27        print(f"{f:.2f}F = {k:.2f}K")
28    elif choice == '5':
```

```
26        k = (f - 32) * 5/9 + 273.15
27        print(f"{f:.2f}F = {k:.2f}K")
28    elif choice == '5':
29        k = float(input("Enter temperature in Kelvin: "))
30        c = k - 273.15
31        print(f"{k:.2f}K = {c:.2f}C")
32    elif choice == '6':
33        k = float(input("Enter temperature in Kelvin: "))
34        f = (k - 273.15) * 9/5 + 32
35        print(f"{k:.2f}K = {f:.2f}F")
36    else:
37        print("Invalid choice.")
38
```

```
39 # Call the function
40 convert_temperature()
41  Ctrl+L to chat, Ctrl+K to generate
42
```

Output :

```
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Documents/AIAC/labtest/task3
Temperature Converter
Choose the conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 1
Enter temperature in Celsius: 373
373.0°C = 703.40°F
PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users/ssrir/AppData/Local/
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Documents/AIAC/labtest/task3
Temperature Converter
Choose the conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 2
Enter temperature in Celsius: 100
100.0°C = 373.15K
PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users/ssrir/AppData/Local/
```

```
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Documents/AIAC/labtest
Temperature Converter
Choose conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 3
Enter temperature in Fahrenheit: 345
345.00F = 173.89C
PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users/ssrir/AppData/
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Documents/AIAC/labtest
Temperature Converter
Choose conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 4
Enter temperature in Fahrenheit: 54
54.00F = 285.37K
```

```
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Document
Temperature Converter
Choose conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 373.15
Invalid choice.
PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users
wsApps/python3.11.exe c:/Users/ssrir/OneDrive/Document
Temperature Converter
Choose conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 5
Enter temperature in Kelvin: 373.15
373.15K = 100.00C
PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users
```

```

PS C:\Users\ssrir\OneDrive\Documents\AIAC> & C:/Users/ssrir/AppData/Local/Programs/Python/Python311/Python.exe c:/Users/ssrir/OneDrive/Documents/AIAC/
Temperature Converter
Choose conversion type:
1. Celsius to Fahrenheit
2. Celsius to Kelvin
3. Fahrenheit to Celsius
4. Fahrenheit to Kelvin
5. Kelvin to Celsius
6. Kelvin to Fahrenheit
Enter your choice (1-6): 6
Enter temperature in Kelvin: 100
100.00K = -279.67F
PS C:\Users\ssrir\OneDrive\Documents\AIAC>

```

4. Write a Python function to remove punctuation, convert to lowercase, and remove stop words from a given text. Use the Cursor AI tool. Use zero shot prompting.

Prompt : Write a Python function to remove punctuation, convert to lowercase, and remove stop words from a text given by the user. And displays the output.

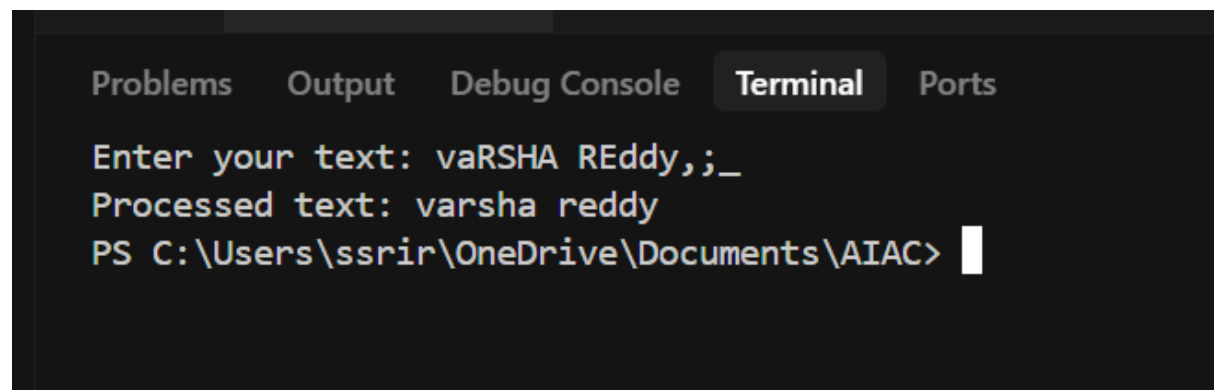
```

labtest > task4.py > ...
1  def preprocess_text():
2      import string
3
4      # Define a simple List of English stop words
5      stop_words = {
6          'a', 'an', 'the', 'and', 'or', 'but', 'if', 'while', 'with', 'to', 'of', 'at', 'by', '
7      }
8
9      text = input("Enter your text: ")
10
11     # Remove punctuation
12     text_no_punct = text.translate(str.maketrans('', '', string.punctuation))
13
14     # Convert to Lowercase
15     text_lower = text_no_punct.lower()
16
17     # Remove stop words
18     words = text_lower.split()
19     filtered_words = [word for word in words if word not in stop_words]
20
21     # Join back to string
22     processed_text = ' '.join(filtered_words)
23
24     print("Processed text:", processed_text)
25
26     # Call the function
27     preprocess_text()
28

```

Ctrl+L to chat, Ctrl+K to generate

Output :

A screenshot of a Visual Studio Code terminal window. The terminal has a dark background with a light gray title bar. At the top, there are tabs for 'Problems', 'Output', 'Debug Console', 'Terminal' (which is active and highlighted), and 'Ports'. The terminal content shows the following text: 'Enter your text: vaRSHA REddy,;_' on the first line, 'Processed text: varsha reddy' on the second line, and 'PS C:\Users\ssrir\OneDrive\Documents\AIAC>' on the third line with a white cursor at the end.

```
Problems  Output  Debug Console  Terminal  Ports

Enter your text: vaRSHA REddy,;_
Processed text: varsha reddy
PS C:\Users\ssrir\OneDrive\Documents\AIAC> |
```