**AI Assisted Coding**

**Lab Exam:**

**H.T.NO:2403A51251**

**Batch:11**

**Task-1:**

**Prompt:**

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

**Code:**

# Given a list of numbers, calculate the sum of odd and even numbers

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

sum\_even = sum(num for num in numbers if num % 2 == 0)

sum\_odd = sum(num for num in numbers if num % 2 != 0)

print(f"Sum of even numbers: {sum\_even}")

print(f"Sum of odd numbers: {sum\_odd}")

**Output:**

Sum of even numbers: 30

Sum of odd numbers: 25

**Task 2:**

**Prompt:**

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.

**Code:**

# Given a list of integers, remove duplicates and print the sorted result

numbers = [5, 3, 8, 3, 1, 5, 7, 2, 8]

unique\_sorted = sorted(set(numbers))

print(unique\_sorted)

**Output:**

[1, 2, 3, 5, 7, 8]

**Task-3:**

**Prompt:**

write a python function that converts the temperature between celsius,fahrenheit,and kelvin based on uder choice.use few shot prompting

**code:**

def convert\_temperature(*value*, *from\_unit*, *to\_unit*):

    """

    Converts temperature between Celsius, Fahrenheit, and Kelvin.

    Args:

        value (float): The temperature value to convert.

        from\_unit (str): The unit of the input temperature ('celsius', 'fahrenheit', 'kelvin').

        to\_unit (str): The unit to convert to ('celsius', 'fahrenheit', 'kelvin').

    Returns:

        float: The converted temperature value.

    """

*# Few-shot prompting examples:*

*# Example 1: convert\_temperature(0, 'celsius', 'fahrenheit') -> 32.0*

*# Example 2: convert\_temperature(32, 'fahrenheit', 'celsius') -> 0.0*

*# Example 3: convert\_temperature(0, 'celsius', 'kelvin') -> 273.15*

*# Example 4: convert\_temperature(273.15, 'kelvin', 'celsius') -> 0.0*

*# Example 5: convert\_temperature(100, 'celsius', 'fahrenheit') -> 212.0*

    from\_unit = from\_unit.lower()

    to\_unit = to\_unit.lower()

*if* from\_unit == to\_unit:

*return* value

*# Convert input to Celsius first*

*if* from\_unit == 'celsius':

        celsius = value

*elif* from\_unit == 'fahrenheit':

        celsius = (value - 32) \* 5/9

*elif* from\_unit == 'kelvin':

        celsius = value - 273.15

*else*:

*raise* ValueError("Invalid from\_unit. Choose from 'celsius', 'fahrenheit', 'kelvin'.")

*# Convert Celsius to target unit*

*if* to\_unit == 'celsius':

*return* celsius

*elif* to\_unit == 'fahrenheit':

*return* celsius \* 9/5 + 32

*elif* to\_unit == 'kelvin':

*return* celsius + 273.15

*else*:

*raise* ValueError("Invalid to\_unit. Choose from 'celsius', 'fahrenheit', 'kelvin'.")

**output:**

25°C to Fahrenheit: 77.0

77°F to Kelvin: 298.15

300K to Celsius: 26.850000000000023

**Task-4:**

**Prompt :**

write a python function to remove punctuation convert to lowercase and remove stop words from a given text user the cursor ai tool .use zero shot prompting.give better prompt for above question

**code:**

import string

# Sample list of stop words

stop\_words = {"a", "an", "the", "and", "or", "in", "on", "at", "to", "is", "of"}

def clean\_text(text):

"""

Removes punctuation, converts to lowercase, and removes stop words.

"""

# Convert to lowercase

text = text.lower()

# Remove punctuation

text = text.translate(str.maketrans('', '', string.punctuation))

# Remove stop words

words = text.split()

filtered\_words = [word for word in words if word not in stop\_words]

return ' '.join(filtered\_words)

# Example usage

sample\_text = "The quick brown fox jumps over the lazy dog in the park."

cleaned\_text = clean\_text(sample\_text)

print(cleaned\_text)

**output:**

quick brown fox jumps over lazy dog park