**Write a program to count word frequencies in a given text:**

from collections import Counter

import re

def count\_word\_frequencies(text):

# Tokenize the text into words (split by spaces and remove punctuation)

words = re.findall(r'\b\w+\b', text.lower())

# Count word frequencies using the Counter class from the collections module

word\_count = Counter(words)

return word\_count

if \_\_name\_\_ == "\_\_main\_\_":

input\_text = input("Enter the text: ")

word\_frequencies = count\_word\_frequencies(input\_text)

# Print word frequencies

for word, frequency in word\_frequencies.items():

print(f"{word}: {frequency}")

**OUTPUT:**

Enter the text: cat dog cat cow pig cat dog

cat: 3

dog: 2

cow: 1

pig: 1

**MINI PROJECT:**

**Develop a basic to-do list program using functions and data structures**

**add features like adding tasks in the to-do list, display the tasks and quitting the loop**

def display\_list(todo\_list):

if not todo\_list:

print("Your to-do list is empty.")

else:

print("To-Do List:")

for i, task in enumerate(todo\_list, start=1):

print(f"{i}. {task}")

def add\_task(todo\_list, task):

todo\_list.append(task)

print(f"Task '{task}' added to the to-do list.")

def remove\_task(todo\_list, task\_index):

if 1 <= task\_index <= len(todo\_list):

removed\_task = todo\_list.pop(task\_index - 1)

print(f"Task '{removed\_task}' removed from the to-do list.")

else:

print("Invalid task index. Please enter a valid task number.")

def main():

todo\_list = []

while True:

print("\nMenu:")

print("1. Display To-Do List")

print("2. Add Task")

print("3. Remove Task")

print("4. Quit")

choice = input("Enter your choice (1/2/3/4): ")

if choice == "1":

display\_list(todo\_list)

elif choice == "2":

task = input("Enter the task: ")

add\_task(todo\_list, task)

elif choice == "3":

try:

task\_index = int(input("Enter the task number to remove: "))

remove\_task(todo\_list, task\_index)

except ValueError:

print("Invalid input. Please enter a valid task number.")

elif choice == "4":

print("Goodbye!")

break

else:

print("Invalid choice. Please select a valid option.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

**OUTPUT:**

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 1

Your to-do list is empty.

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 2

Enter the task: mini project

Task 'mini project' added to the to-do list.

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 2

Enter the task: assignment

Task 'assignment' added to the to-do list.

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 1

To-Do List:

1. mini project

2. assignment

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 3

Enter the task number to remove: 1

Task 'mini project' removed from the to-do list.

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 1

To-Do List:

1. assignment

Menu:

1. Display To-Do List

2. Add Task

3. Remove Task

4. Quit

Enter your choice (1/2/3/4): 4

Goodbye!