# Task 1 & 16: Assign Grades Based on Scores

def assign\_grade(score):

if score > 90:

return "Grade A"

elif score > 75:

return "Grade B"

elif score > 65:

return "Grade C"

else:

return "No Grade"

students = {"Alice": 95, "Bob": 82, "Charlie": 70, "David": 60}

for name, score in students.items():

print(f"{name} scored {score} and got {assign\_grade(score)}")

print("\n" + "-"\*40)

# Task 2: Slice [2:5]

text = "THISISWORLDBESTPRATICE"

print("Slice [2:5]:", text[2:5])

# Task 3, 8, 13: File Read and Write

with open("file\_task.txt", "w") as f:

f.write("This is a write operation.\n")

with open("file\_task.txt", "r") as f:

print("File Read:\n", f.read())

print("\n" + "-"\*40)

# Task 4, 9, 14, 19: Class with Two Data Members

class Student:

def \_\_init\_\_(self, name, marks):

self.name = name

self.marks = marks

def display(self):

print(f"Name: {self.name}, Marks: {self.marks}")

stu = Student("John", 88)

stu.display()

print("\n" + "-"\*40)

# Task 5, 10, 15, 20: Draw Line in Diagram

import matplotlib.pyplot as plt

x = [1, 8]

y = [3, 10]

plt.plot(x, y, marker='o')

plt.title("Line from (1,3) to (8,10)")

plt.grid(True)

plt.xlabel("X")

plt.ylabel("Y")

plt.show()

# Task 6: 5th Table

print("5th Table:")

for i in range(1, 11):

print(f"5 x {i} = {5\*i}")

print("\n" + "-"\*40)

# Task 7: Slice [4:12]

print("Slice [4:12]:", text[4:12])

# Task 11: 9th Table

print("9th Table:")

for i in range(1, 11):

print(f"9 x {i} = {9\*i}")

print("\n" + "-"\*40)

# Task 12: Slice [-2:-12]

# Will not give output as expected due to positive step

# Corrected with negative step

print("Slice [-2:-12:-1]:", text[-2:-12:-1])

# Task 17: Slice [4:13]

print("Slice [4:13]:", text[4:13])

# Task 18: Append File Content and Write

with open("file\_task.txt", "a") as f:

f.write("This is an appended line.\n")

with open("file\_task.txt", "r") as f:

print("Appended File Content:\n", f.read())