Python Assignment 1

# 1. Grade Checker

This program takes a score as input and prints the grade based on the following scale:  
90+ : 'A'  
80-89 : 'B'  
70-79 : 'C'  
60-69 : 'D'  
Below 60 : 'F'  
It uses basic if-else statements.

Code:  
score = int(input("Enter the score: "))  
if score >= 90:  
 print("Grade: A")  
elif score >= 80:  
 print("Grade: B")  
elif score >= 70:  
 print("Grade: C")  
elif score >= 60:  
 print("Grade: D")  
else:  
 print("Grade: F")

# 2. Student Grades

This program uses a dictionary where the keys are student names and the values are their grades.  
It allows the user to:  
- Add a new student and grade.  
- Update an existing student’s grade.  
- Print all student grades.

Code:  
grades = {}  
  
while True:  
 print("\n1. Add Student")  
 print("2. Update Grade")  
 print("3. Print All Grades")  
 print("4. Exit")  
   
 choice = input("Enter your choice (1-4): ")  
   
 if choice == '1':  
 name = input("Enter student name: ")  
 grade = input("Enter student grade: ")  
 grades[name] = grade  
 print(f"Added: {name} with grade {grade}")  
 elif choice == '2':  
 name = input("Enter student name to update: ")  
 if name in grades:  
 new\_grade = input("Enter new grade: ")  
 grades[name] = new\_grade  
 print(f"Updated: {name}'s grade to {new\_grade}")  
 else:  
 print("Student not found.")  
 elif choice == '3':  
 print("\nAll Student Grades:")  
 for name, grade in grades.items():  
 print(f"{name}: {grade}")  
 elif choice == '4':  
 break  
 else:  
 print("Invalid choice. Please try again.")

# 3. Write to a File

This program opens a file in write mode and writes some text content to it using the write() function.

Code:  
file = open("sample.txt", "w")  
file.write("Hello, this is a sample text written to the file.\n")  
file.write("You can add multiple lines using write().")  
file.close()  
  
print("Content written to sample.txt successfully.")

# 4. Read from a File

This program reads the contents of the file written in the previous step using read() and displays it.

Code:  
file = open("sample.txt", "r")  
content = file.read()  
file.close()  
  
print("Content of sample.txt:")  
print(content)