Assignment: Python Basics – Grade & File Handling

# 1. Grade Checker

Description:  
This program takes a score as input from the user and prints the grade based on predefined conditions using 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")

Explanation:  
Takes numeric input and uses if-elif-else conditions to determine grade.

# 2. Student Grades using Dictionary

Description:  
This program manages student names and grades using a dictionary. It allows adding, updating, and viewing grades.

Code:

students = {}  
  
while True:  
 print("\nOptions:")  
 print("1. 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 grade: ")  
 students[name] = grade  
 print("Student added.")  
   
 elif choice == "2":  
 name = input("Enter student name to update: ")  
 if name in students:  
 grade = input("Enter new grade: ")  
 students[name] = grade  
 print("Grade updated.")  
 else:  
 print("Student not found.")  
   
 elif choice == "3":  
 print("\nStudent Grades:")  
 for name, grade in students.items():  
 print(f"{name}: {grade}")  
   
 elif choice == "4":  
 break  
 else:  
 print("Invalid option. Try again.")

Explanation:  
Uses a dictionary to store and update student grades via a menu system.

# 3. Write to a File

Description:  
Creates a new file and writes content to it.

Code:

with open("example.txt", "w") as file:  
 file.write("Hello, this is a sample text written to the file.\n")  
 file.write("This is the second line.")  
print("File written successfully.")

Explanation:  
Uses 'with open' in write mode to safely write content to a file.

# 4. Read from a File

Description:  
Reads the contents of a file and displays them.

Code:

with open("example.txt", "r") as file:  
 content = file.read()  
 print("File Content:\n")  
 print(content)

Explanation:  
Opens the file in read mode and displays its content.

# Submission Instructions

- Take screenshots of each program running in your IDE or terminal.  
- Paste the screenshots below each code section in this document.  
- Submit the document as a Word file or Google Doc.  
- Alternatively, upload your code to GitHub and share the repository link.