**ASSIGNMENT 4.4**

**TASK 1**:

• Write a class definition comment and start the constructor for a class called BankAccount with  
account\_holder and balance attributes. Use GitHub Copilot to auto-complete the rest of the  
class, including methods to deposit, withdraw, and display balance.

Ex00pected Output #1  
• Complete class with methods like:  
deposit(self, amount)  
withdraw(self, amount)  
display\_balance(self)  
• Output from sample usage

**CODE:**

A screen shot of a computer program

Description automatically generated

**Output:**

A screen shot of a computer program

Description automatically generated

**Observation:** The code was generated in Copilot and executed in VS Code. It produced improved code with the correct output.

**Task 2**: Auto-Complete a For Loop to Sum Even Numbers in a List  
Task Description #2  
• Write a comment and the initial line of a loop to iterate over a list. Allow GitHub Copilot to  
complete the logic to sum all even numbers in the list.  
Expected Output #2  
• Code that:  
• Iterates over a list  
• Checks if the number is even using % 2 == 0  
• Accumulates the sum  
• Sample input/output:

**CODE:**

**A screenshot of a computer program

Description automatically generated**

**OUTPUT:**

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**OBSERVATION:** The code was generated in Copilot and executed in VS Code. It produced improved code with the correct output.

**TASK 3:**

Auto-Complete Conditional Logic to Check Age Group  
Task Description #3  
• Start a function that takes age as input and returns whether the person is a child, teenager,  
adult, or senior using if-elif-else. Use Copilot to complete the conditionals.  
Expected Output #3  
• Function like:  
Output for age\_group(45) ➝ "Adult"

**CODE:**

A computer screen with text and numbers

Description automatically generated

**OUTPUT:**

**A black background with white text

Description automatically generated**

**Observation:** The code was generated in Copilot and executed in VS Code. It produced improved code with the correct output.

**TASK 4:**

Auto-Complete a While Loop to Reverse Digits of a Number  
Task Description #4  
• Write a comment and start a while loop to reverse the digits of a number. Let Copilot  
complete the loop logic.  
Expected Output #4  
• Functional loop: Output: 4321

**CODE:**

**A screen shot of a computer program

Description automatically generated**

**OUTPUT:**

**A black background with white text

Description automatically generated**

**OBSERVATION:** The code was generated in Copilot and executed in VS Code. It produced improved code with the correct output.

**Task 5:**

Auto-Complete Class with Inheritance (Employee → Manager)  
Task Description #5  
• Begin a class Employee with attributes name and salary. Then, start a derived class Manager  
that inherits from Employee and adds department. Let GitHub Copilot complete the methods  
and constructor chaining.  
Expected Output #5  
• Auto-generated code like:  
Name: John, Salary: 50000, Dept: IT

**CODE:**

**A computer screen shot of a program code

Description automatically generated**

**OUTPUT:**

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**OBSERVATION:** The code was generated in Copilot and executed in VS Code. It produced improved code with the correct output.