Lab 4: Classes and Objects

Background

Python is an object-oriented language, meaning that everything in Python is an object that has properties and methods. But before you create an object, it's a good idea to create a class, which acts as the object constructor and template for creating objects.

Instructions

Use Python IDE to create a solution for the scenario presented in each question.

1. **Student Class**

   Write a program that creates a **Student** class. Each student has a name, an ID and an address. Initialize the student properties using your own information. Write a method that displays your information, and display each piece of information on its own line.

2. **Circle Class**

   Write a program that creates a **Circle** class. A circle has a radius attribute. Write a method that displays the Circle object area, and then write another method that displays the Circle object perimeter.

3. **Bank Account Class**

   Write a program that creates a Bank account class. A bank account has the attributes **account_number**, **customer_name** and **balance**. Create the following:
   - A constructor that takes the three parameters: account_number, customer_name and balance
   - A deposit() method for depositing money into the account
   - A withdraw() method for withdrawing money from the account
   - A display() method to display the customer's account details

   Submit all possible test cases.

Submission:

Please submit two files:

1- A PDF file containing screenshots of the code of each program along with their respective outputs.

2- A single zip file that has all the Python files, placed all .py files in one folder and zip the folder.