Exercise 01:

Create a class named "BankAccount" with private instance variables "accountNumber" and "balance." Implement encapsulation by providing public getter and setter methods for both variables. Additionally, create an abstract method called "calculateInterest" in the "BankAccount" class. Implement two subclasses, "SavingsAccount" and "CheckingAccount," that extend the "BankAccount" class and provide their own implementations of the "calculateInterest" method. Write the implementation code for the getter and setter methods in the "BankAccount" class, and the "calculateInterest" method in both the "SavingsAccount" and "CheckingAccount" classes. Assuming that the interest for saving is 12% and checking is 2% (both private variables), find out What will be the interest for a person with 1 million in his checking and 20 million in his saving account.

Exercise 02:

Create an interface called "Shape" with two abstract methods: "double calculateArea()" and "double calculatePerimeter()". Implement the "Shape" interface in three classes: "Circle", "Rectangle", and "Triangle". Each class should have private instance variables relevant to its shape, and provide public getter and setter methods for these variables. Additionally, each class should define a constructor that initializes the instance variables. Write the implementation code for the "Shape" interface, the getter and setter methods in each class, and the constructors in each class.