

Assignment 2

For this assignment you need to write a Java program that defines an abstract class named `Bank` to represent common functionalities of a bank. Below are the tasks broken down:

1. Define the Class and Properties:

- Create a public abstract class named `Bank`.
- The class should have three private properties:
 - `accNumber`: a `String` representing the account number.
 - `accName`: a `String` representing the account holder's name.
 - `balance`: a `double` representing the account balance.

2. Create a Constructor:

- Define a constructor for the `Bank` class that takes three parameters: `String accNumber`, `String accName`, and `double balance`.
- Initialize the class properties (`accNumber`, `accName`, `balance`) using the constructor parameters.

3. Define Getter Methods:

- Implement three public getter methods:
 - `getAccNumber()`: returns the `accNumber`.
 - `getAccName()`: returns the `accName`.
 - `getBalance()`: returns the `balance`.

4. Define a Setter Method:

- Implement a public method `setBalance(double amount)` to update the `balance` property.

5. Create Abstract Methods:

- Define four abstract methods that must be implemented by any subclass of `Bank`:
 - `checkBalance()`: returns a `double`.
 - `deposit(double amount)`: takes a `double` parameter.

- `withdrawal(double amount)`: returns a `boolean` and takes a `double` parameter.
- `transfer(Bank receiver, double amount)`: returns a `boolean` and takes a `Bank` and `double` as parameters.

6. Create a class call `Saving`:

- The `Saving` class will extend the `Bank` and implements all the `abstract` methods defined on the superclass `Bank`.
- Implement `checkBalance`, `deposit`, and `withdrawal` methods for your `Saving` class.

7. Create a `Tester` class to test your application.

- Your `Tester` class should create and instance of `Saving` class passing all arguments.
- Use the `Saving` to perform various banking operation like; `checkBalance`, `deposit`, and `withdrawal`

Happy coding!