

SOAL LAB VISPRO WEEK 2

1. Student Class

Create a **Student** class with attributes: **name**, **studentID**, and **grade**. Add a method to display student information and another method to check if the student **passes** (grade ≥ 70).

2. Bank System

Create a **BankAccount** class with a private attribute **_balance**. Add methods to **deposit**, **withdraw**, and **checkBalance**. Create a subclass **SavingsAccount** that inherits **BankAccount** and adds a method to apply **interest**.

3. Simple ATM

Create an **ATM** class with methods to **deposit money**, **withdraw money**, and **check balance**. Use encapsulation to protect the balance.

4. Library System

Create a **Book** class with attributes **title**, **author**, and **year**. Then create a **Library** class that contains a list of books. Add methods to **addBook()**, **removeBook()**, and **displayBooks()**.

5. Animal Sounds

Create an **Animal** class with methods **sound()** and **eat()**. Implement two classes **Dog** and **Cat** that follow the **Animal** behavior.

6. Temperature Conversion

Create a program that calculates the **conversion of temperature** from **Celsius** to **Reaumur**, **Fahrenheit**, or **Kelvin**. The input should be the **Celsius** temperature, and the user has the option to choose between converting to **Reaumur**, **Fahrenheit**, or **Kelvin**.

7. Vehicle

Create a **Vehicle** class with attributes **name** and **speed**. Implement two subclasses **Car** and **Bike** that inherit from **Vehicle**. Each subclass should

override a method **move()** that describes how the vehicle moves (e.g., "The car moves fast on roads" and "The bike moves swiftly through traffic").

Additionally, ask the user to input whether they want to create a **Car** or **Bike**, then create an instance based on their input and call the **move()** method.