Scenario: Vehicle Insurance Premium Calculation System

Problem Statement

Design a system to calculate **insurance premiums** for different types of vehicles in an insurance company.

Requirements

1. Use **abstraction** to define a common vehicle structure.

2. Use **encapsulation** to protect vehicle price data.

3. Use **polymorphism** to calculate insurance premiums for different vehicle types using a common reference.

Functional Details

- Create an **abstract class** Vehicle

  - Private variable price

  - Abstract method calculatePremium()

- Create two subclasses:

  - Car

  - Bike

- Each subclass should calculate insurance premium differently:

  - Car → 5% of price

  - Bike → 2% of price

- Use **runtime polymorphism** in main().

Expected Output (Sample)

Car Insurance Premium: 50000.0

Bike Insurance Premium: 10000.0

Your Task

Write a Java program to implement the above system using:

- Abstraction

- Encapsulation

- Runtime Polymorphism