1. Write a Java program to create an abstract class Person with abstract methods eat() and exercise(). Create subclasses Athlete and LazyPerson that extend the Person class and implement the respective methods to describe how each person eats and exercises.
2. Write a Java program to create an abstract class Bird with abstract methods fly() and makeSound(). Create subclasses Eagle and Hawk that extend the Bird class and implement the respective methods to describe how each bird flies and makes a sound.
3. Write a Java program to create an abstract class BankAccount with abstract methods deposit() and withdraw(). Create subclasses: SavingsAccount and CurrentAccount that extend the BankAccount class and implement the respective methods to handle deposits and withdrawals for each account type.
4. Write a Java program to create a Animal interface with a method called bark() that takes no arguments and returns void. Create a Dog class that implements Animal and overrides speak() to print "Dog is barking".
5. Write a Java program to create an interface Shape with the getArea() method. Create three classes Rectangle, Circle, and Triangle that implement the Shape interface. Implement the getArea() method for each of the three classes.
6. Write a Java program to create a class called Person with private instance variables name, age. and country. Provide public getter and setter methods to access and modify these variables.
7. Write a Java program to create a class called Rectangle with private instance variables length and width. Provide public getter and setter methods to access and modify these variables.
8. Write a Java program to create a class called Car with private instance variables company_name, model_name, year, and mileage. Provide public getter and setter methods to access and modify the company_name, model_name, and year variables. However, only provide a getter method for the mileage variable.
9. Write a Java program to create a class called Student with private instance variables student_id, student_name, and grades. Provide public getter and setter methods to access and modify the student_id and student_name variables. However, provide a method called addGrade() that allows adding a grade to the grades variable while performing additional validation