1. Write a program to create a class Dog with following details:
*** 3 properties/features (Like name, age, color)**
*** 2 behaviours/Methods (Like walk, Bark, Eat etc)**
*** Create a static info method of the following syntax to print info about the dog**
public static void info(Dog dog){}
*** Create 2 objects of class dog and call the methods**

```
public class Dog {
    String name,breed;
    int age;

    private void bark(){
        System.out.println(name + " is barking...");
    }

    private void eat(String food){
        System.out.println(name + " is eating " + food);
    }

    public static void info(Dog d1) {
        System.out.println("The name of the dog is " + d1.name);
        System.out.println("The breed of the dog is " + d1.breed );
        System.out.println(d1.name + " is " + d1.age + " years old \n" );
    }

    public static void main(String[] args) {

        Dog dog1 = new Dog();
        Dog dog2 = new Dog();

        dog1.name = "Bruno";
        dog1.age = 4;
        dog1.breed = "dash";

        dog2.name = "Lisa";
        dog2.age = 5;
        dog2.breed = "Lab";

        info(dog1);
        dog1.bark();
```

```
        System.out.println();

        info(dog2);
        dog2.eat("Biscuits");

    }
}
```

2. Simple program to Convert between metric units using functions
*** double kmToMetre(double km)**
*** double metreToKm(double m)**

```
import java.util.Scanner;

public class Convert {

    double kmToMetre(double km) {
        return (km*1000);
    }

    double metreToKm(double m) {
        return (m/1000);
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        double m,km;
        Convert c=new Convert();
        System.out.println("Enter the value in metre :");
        m=sc.nextDouble();
        System.out.println("Kilometre value = " + c.metreToKm(m));

        System.out.println("Enter the value in kilometre :");
        km=sc.nextDouble();
        System.out.println("metre value = " + c.kmToMetre(km));
    }

}
```

3. Simple program to understand concept of static variable

Create a class player

Create 3 objects of players

Display the scoreboard based on the number of goals scored by each player and the team as a whole

```
public class Player {

   int playerGoals = 0;
   static int teamGoals=0;

   void goal(){
      playerGoals++;
      teamGoals++;
   }

   public static void main(String[] args) {

      Player anurag = new Player();
      Player rahul = new Player();
      Player aman = new Player();

      anurag.goal();
      rahul.goal();
      aman.goal();
      anurag.goal();
      rahul.goal();

      System.out.println("Scoreboard :" );
      System.out.println("Anurag : " + anurag.playerGoals);
      System.out.println("Rahul : " + rahul.playerGoals);
      System.out.println("Aman : " + aman.playerGoals);

      System.out.println("Total goals scored by team is "+ teamGoals);

   }
}
```

Practice Problems

1.Assign and print the roll number, phone number and address of two students having names "Sam" and "John" respectively by creating two objects of class 'Student'.

2. Print the sum, difference and product of two complex numbers by creating a class named 'Complex' with separate methods for each operation whose real and imaginary parts are entered by user.

3. Write a program by creating an 'Employee' class having the following methods and print the final salary.

- 'getInfo()' which takes the salary, number of hours of work per day of employee as parameter

- 'AddSal()' which adds Rs 1000 to salary of the employee if it is less than 10000.

- 'AddWork()' which adds Rs 500 to salary of employee if the number of hours of work per day is more than 6 hours.