Week 5: Sample programs

1.while loop that counts down from 10, printing exactly ten lines of "tick"

```
// Demonstrate the while loop.
class While {
  public static void main(String args[]) {
    int n = 10;

    while(n > 0) {
      System.out.println("tick " + n);
      n--;
    }
  }
}
```

2. To demonstrate Nested If else

```
// Demonstrate if-else-if statements.
class IfElse {
  public static void main(String args[]) {
    int month = 4; // April
    String season;

    if(month == 12 || month == 1 || month == 2)
      season = "Winter";
    else if(month == 3 || month == 4 || month == 5)
      season = "Spring";
    else if(month == 6 || month == 7 || month == 8)
      season = "Summer";
    else if(month == 9 || month == 10 || month == 11)
      season = "Autumn";
    else
      season = "Bogus Month";

    System.out.println("April is in the " + season + ".");
  }
}
```

3. /to demonstrate that multiple switch case can use same implementation

```
// An improved version of the season program.
class Switch {
  public static void main(String args[]) {
    int month = 4;

    String season;

    switch (month) {
      case 12:
      case 1:
      case 2:
        season = "Winter";
        break;
      case 3:
      case 4:
      case 5:
        season = "Spring";
        break;
      case 6:
      case 7:
      case 8:
        season = "Summer";
        break;
      case 9:
      case 10:
      case 11:
        season = "Autumn";
        break;
      default:
        season = "Bogus Month";
    }
    System.out.println("April is in the " + season + ".");
  }
}
```

4. //To demonstrate that String can be given as case value

```
// Use a string to control a switch statement.

class StringSwitch {
  public static void main(String args[]) {

    String str = "two";

    switch(str) {
      case "one":
        System.out.println("one");
        break;
      case "two":
        System.out.println("two");
        break;
      case "three":
        System.out.println("three");
        break;
      default:
        System.out.println("no match");
        break;
    }
  }
}
```

Lab Progrram-3

```
/*

3. A class called Employee, which models an employee with an ID, name and
salary, is designed as shown in

the following class diagram. The method raiseSalary (percent) increases the
salary by the given
```

```
percentage. Develop the Employee class and suitable main method for
demonstration.
*/
import java.util.Scanner;
public class Employee {
    private int empId;
    private String name;
    private double salary;

    public Employee(int empId, String name, double salary) {
        this.empId = empId;
        this.name = name;
        this.salary = salary;
    }

    public void raiseSalary(double percentage) {
        if (percentage > 0) {
            double raiseAmount = salary * (percentage / 100);
            salary += raiseAmount;
        }
    }

    public void displayInfo() {
        System.out.println("Employee ID: " + empId);
        System.out.println("Name: " + name);
        System.out.println("Salary: Rs." + String.format("%.2f", salary));
    }
```

```
    public static void main(String[] args) {
        // Creating an Employee object
        Employee emp = new Employee(1, "Dr. Harish Kumar B T", 50000.0);
         Scanner scanner = new Scanner(System.in);
        // Displaying employee information before raise
        System.out.println("Employee information before raise:");
        emp.displayInfo();
          System.out.println("Enter the percentage of salary to raise");
          int percentage = scanner.nextInt();
        // Raising salary by 10%
        emp.raiseSalary(percentage);

        // Displaying employee information after raise
        System.out.println("\nEmployee information after raise:");
        emp.displayInfo();
    }
}
```