

## CDAC Mumbai PG-DAC AUGUST 24

### Assignment No- 2

Q1. Write a program that takes a month (1-12) and prints the corresponding season (Winter, Spring, Summer, Autumn) using a switch case

```
Ans: package Assignment;
import java.util.Scanner;
public class Year1 {
    public static void month() {
        System.out.println("Enter the Month");
        Scanner sc = new Scanner(System.in);
        String season;
        int c = sc.nextInt();
        switch (c) {
            case 11:
            case 12:
            case 1:
                season = "Winter";
                break;
            case 2:
            case 3:
                season = "Spring";
                break;
            case 4:
            case 5:
            case 6:
            case 7:
                season = "Summer";
                break;
            case 8:
            case 9:
            case 10:
                season = "Autumn";
                break;
            default:
                season = "Invalid month number";
                break;
        }
        System.out.println("The season is: " + season);
        sc.close();
    }
}
```

```

    }
}
package Assigment;
public class Year {
    public static void main(String[] args) {
        // TODO Auto-generated method stub;
        Year1.month();
    }
}

```

2) Implement a program that calculates the Body Mass Index (BMI) based on height and weight input using if-else to classify the BMI into categories (underweight, normal weight, overweight, etc).

Ans: **package** Assigment;

**import** java.util.Scanner;

**public class** vote1 {

**public static void** vote() {

        System.out.println("Enter your age ");

        Scanner sc=new Scanner(System.in);

**int** a= sc.nextInt();

**if**(a<0) {

            System.out.println("Plz enter valid age");

        }

**else if**(a>=18) {

            System.out.println("You can vote to your candidate");

**else** {

            System.out.println("You are not eligible for vote as per the rule ");

        }

        sc.close();

    }

}

**package** Assigment;

**public class** vote {

**public static void** main(String[] args) {

        // TODO Auto-generated method stub

        // vote1.vote();

        vote1 v= new vote1();

        v.vote();

    }

}

3) Write a program that checks if a person is eligible to vote based on their age.

Ans: **package** Assignment;

**import** java.util.Scanner;

```
public class leap1 {  
    public static void year() {  
        System.out.println("Enter the Year");  
        Scanner sc = new Scanner(System.in);  
        int y = sc.nextInt();  
  
        if((y % 4 == 0 && y % 100 != 0) || (y % 400 == 0)) {  
            System.out.println("this year is leap year");  
        }  
        else {  
            System.out.println("this year is not leap year");  
        }  
        sc.close();  
    }  
}  
  
package Assignment;  
public class leap {  
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        leap1.year();  
    }  
}
```

4) Write a program that allows the user to select a shape (Circle, Square, Rectangle, Triangle) and then calculates the area based on user-provided dimensions using a switch case.

Ans: **package** Assignment;

**import** java.util.Scanner;

```
public class Area1 {  
    public static void area() {  
        System.out.println("Enter the one of the following");  
        System.out.println("Circle");  
        System.out.println("Square");  
        System.out.println("Rectangle");  
        System.out.println("Triangle");  
        Scanner sc=new Scanner(System.in);
```

```

String s=sc.nextLine();
switch(s) {
case "Circle":
    System.out.println("Enter the radius");
    int r=sc.nextInt();
    System.out.println(Math.PI*r*r);
    break;
case "Square":
    System.out.println("Enter the length");
    int l=sc.nextInt();
    System.out.println(4*l);
    break;
case "Rectangle":
    System.out.println("Enter the length");
    int a=sc.nextInt();
    System.out.println("Enter the breath");
    int b=sc.nextInt();
    System.out.println(a*b);
    break;
case "Triangle":
    System.out.println("Enter the length");
    int j=sc.nextInt();
    System.out.println("Enter the height");
    int h=sc.nextInt();
    System.out.println((j*h)/2);
    break;
default:
    System.out.println("you have not choose any thing");

}

```

```

}

}

```

```

package Assigment;
public class Area {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Area1.area();
    }
}

```

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