Assignment 1.0

```
import java.util.Scanner;
class Problem_1_1
{
    public static void main(String args[])
    {
    System.out.println("Enter the Number to check if it's EVEN or ODD");
    Scanner sc = new Scanner(System.in);

    float num = sc.nextFloat();
    String res = (num%2==0)?"Even":"Odd";

    System.out.println("Entered Number is " +res);

}
}
```

```
import java.util.Scanner;
class Problem_2_1 {
    public static void main(String args[]) {
        System.out.println("Enter the Number to find it's factorial");
        Scanner sc = new Scanner(System.in);
        int num = sc.nextInt();
        int fact = 1;
        for (int i = 1; i <= num; i++) {
            fact = fact * i;
        }
        System.out.println("Factorial for the given Number is " + fact);
    }
}
/*
 *
 * loop execution
 * for i= 1 - > fact = 1
 * for i= 2 - > fact = 2
 * for i= 3 - > fact = 6
 *
 *
 * C:\CDAC\Assignments\Assignment 1>java Problem_2_1
 * Enter the Number to find it's factorial
 * 3
 * Factorial for the given Number is 6
 *
 *
 */
```

```
import java.util.Scanner;
class Problem_4_1 {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the value of the first number");
        int x = sc.nextInt();
        System.out.println("Enter the value of the second number");
        int y = sc.nextInt();
        System.out.println("The values of Numbers before swaping are " + x + " and " + y);
        x = x + y; // x = 11 = 5 + 6
        y = x - y; // y = 11 - 6 = 5
        x = x - y; // x = 11 - 5 = 6
        System.out.println("The values of Numbers after swaping are " + x + " and " + y);
    }
}
/*
 *
 * C:\CDAC\Assignments\Assignment 1>java Problem_4_1
 * Enter the value of the first number
 * 15
 * Enter the value of the second number
 * 20
 * The values of Numbers before swaping are 15 and 20
 * The values of Numbers after swaping are 20 and 15
 *
 * C:\CDAC\Assignments\Assignment 1>
 *
 */
```

```
import java.util.Scanner;
class Problem_5_1 {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number to check whether it's positive r Negative");
        int a = sc.nextInt();
        String res = (a > 0) ? " Positive" : " Negative";
        System.out.println("Enter Numer is " + res);
    }
}
/*
 * C:\CDAC\Assignments\Assignment 1>java Problem_5_1
 * Enter the number to check whether it's positive r Negative
 * 15
 * Enter Numer is Positive
 *
 * C:\CDAC\Assignments\Assignment 1>java Problem_5_1
 * Enter the number to check whether it's positive r Negative
```

```
 * 0
 * Enter Numer is Negative
 *
 * C:\CDAC\Assignments\Assignment 1>java Problem_5_1
 *
 * THIS IS NOT APPLICABLE FOR 0
 *
 */
```

```
import java.util.Scanner;
class Problem_6_1 {
    public static void main(String args[]) {
        System.out.println("Enter the year to check if it's leap or not");
        Scanner sc = new Scanner(System.in);
        int year = sc.nextInt();
        boolean leapyear;
        leapyear = ((year % 4 == 0) && (year % 100 != 0) || (year % 400 == 0));
        if (leapyear)
            System.out.println("This is a leap year");
        else
            System.out.println("This is not a leap year");
    }
}
/*
 *
 * To determine whether a year is a leap year, follow these steps:
 *
 * If the year is evenly divisible by 4, go to step 2. Otherwise, go to step 5.
 * If the year is evenly divisible by 100, go to step 3. Otherwise, go to step
 * 4.
 * If the year is evenly divisible by 400, go to step 4. Otherwise, go to step
 * 5.
 * The year is a leap year (it has 366 days).
 * The year is not a leap year (it has 365 days).
 *
 *
 */
```

```
import java.util.Scanner;
public class Problem_8_1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int num;
        System.out.println("Enter the number ");
        num = sc.nextShort();
        int length = String.valueOf(num).length();
        // System.out.println(length);
```

```
        System.out.println("The digit for the number are ");
        for (int i = 0; i < length; i++) {
            int digit = num % 10;
            num = num / 10;
            System.out.println(digit);
        }
    }
}
/*
 *
 * C:\CDAC\Assignments\Assignment 1>javac Problem_8_1.java
 *
 * C:\CDAC\Assignments\Assignment 1>java Problem_8_1
 * Enter the number
 * 256
 * The digit for the number are
 * 6
 * 5
 * 2
 *
 * C:\CDAC\Assignments\Assignment 1>
 */
```