

DAY-20

07 July 2023 15:06

- WRITE A PROGRAM TO FIND WHETHER THE NUMBER IS SPECIAL NUMBER OR NOT
 - SPECIAL NUMBER IS SUM OF THE FACTORIAL OF EACH NUMBER WHICH IS EQUAL TO THE NUMBER (145)

145

1! = 1

4! = 24

5! = 120

120+24+1 = 145

```
class Test1
{
    public static void main(String[] args)
    {
        int n = 15;
        int num;
        num = n;
        int sum = 0;
        int r;

        do
        {
            r = num%10;

            int fact = 1;
            for (int i = 1; i <= r; i++)
            {
                fact = fact*i;
            }

            sum = sum + fact;

            num = num/10;
        }
        while (num > 0);

        if (n == sum)
        {
            System.out.println("Special Number");
        }
        else
        {
            System.out.println("not a Special Number");
        }
    }
}
```

- WRITE A PROGRAM TO FIND THE GCD OF TWO NUMBERS

```
class Test1
{
    public static void main(String[] args)
    {
        int num1 = 50;
        int num2 = 60;
        int g = 0;

        int i = 1;

        do
        {
            if (num1%i == 0 && num2%i == 0)
            {
                g = i;
            }
            i++;
        }
        while (i<=num1);

        System.out.println(g);
    }
}
```

- WRITE A PROGRAM TO FIND THE LCM OF TWO NUMBERS

$a*b = lcm*gcd$

$Lcm = a*b/gcd$

```
class Test1
{
    public static void main(String[] args)
    {
        int a = 50;
        int b = 60;

        int g = 0;
        int i = 1;

        do
        {
            if (a%i == 0 && b%i == 0)
            {
                g = i;
            }
            i++;
        }
        while (i<=50);

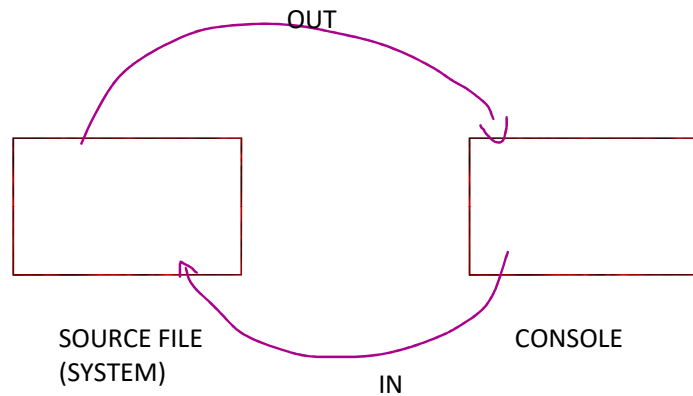
        int lcm = (a*b)/g;
    }
}
```

```

        System.out.println(lcm);
    }
}

```

SCANNER CLASSES

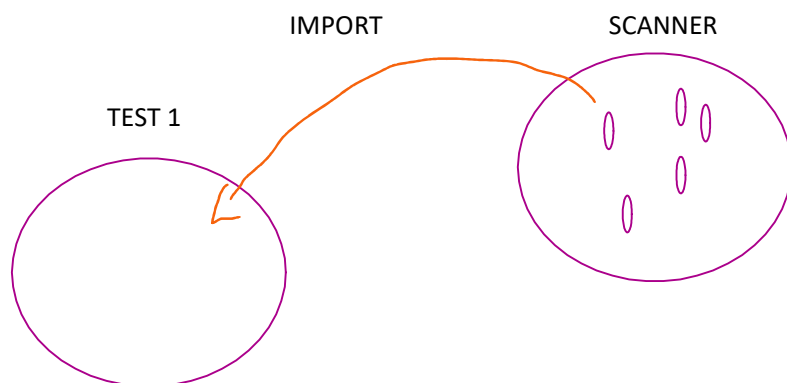


WHY ARE SCANNER CLASSES USED ?

- SCANNER CLASSES ARE USED TO READ THE VALUES FROM THE USER TO USE DATA INSIDE THE PROGRAM

HOW TO USE SCANNER CLASSES ?

- THERE ARE SOME STEPS TO BE FOLLOWED WHEN WE WANT TO USE THE SCANNER CLASSES :
 1. FIRST IMPORT THE SCANNER CLASS TO THE PROGRAM IN WHICH WE WANT TO BE USED
 2. CREATE AN OBJECT OF SCANNER CLASS AND USE THE SCANNER CLASS OBJECT TO GET ACCESS TO THE FUNCTIONS OF SCANNER CLASS



- Import java.util.Scanner; (should always be the first statement)
- Scanner sc = new Scanner(System.in) (should be used inside the main method)

Chose based on data types

Methods	Use
Int a = sc.nextInt();	To read the integer
Double d = sc.nextDouble();	To read the double value
String str = sc.next();	To read the string value without any space
String s = sc.nextLine();	To read the String value with space
Char ch = sc.next().charAt(0);	To read the character value
Float f = sc.nextFloat();	To read the float value

```
import java.util.Scanner;
```

```
class Test1
```

```
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        System.out.println("Kindly enter a value");
        int a = sc.nextInt();

        System.out.println("Kindly enter a value");
        int b = sc.nextInt();

        System.out.println("Sum of the given values are :");
        System.out.println(a+b);
    }
}
```