# JAVA ASSIGNMENT-1 (BASICS)

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1..

```
import java.util.*;
class Name
{
    public static void main(String args[])
    {
       Scanner sc= new Scanner(System.in);
       System.out.println("Enter your name");
       String str=sc.nextLine();
       System.out.println("Your name is: " +str);
       sc.close();

    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> javac Name.java
PS C:\Users\MY\Downloads\java\Assignment-1> java Name
Enter your name
Kumar Jijnasu
Your name is: Kumar Jijnasu
PS C:\Users\MY\Downloads\java\Assignment-1>
```

2..

```
import java.util.*;
class Swap
{
    public static void main(String[] args)
    {
        System.out.println("Enter two numbers: ");
        Scanner sc = new Scanner(System.in);
        int x = sc.nextInt();
```

```
        int y = sc.nextInt();
        System.out.println("Before Swapping: x = "+x+" and y = "+y);
        x = x + y;
        y = x - y;
        x = x - y;
        System.out.println("After Swapping: x = "+x+" and y = "+y);
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> javac Swap.java
PS C:\Users\MY\Downloads\java\Assignment-1> java Swap
Enter two numbers:
5 9
Before Swapping: x = 5 and y = 9
After Swapping: x = 9 and y = 5
PS C:\Users\MY\Downloads\java\Assignment-1>
```

3..

```
import java.util.Scanner;
class Reversenum
{
    public static void main(String[] args) {
        System.out.println("Enter a number: ");
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt(),res = 0;
        while(n!=0)
        {
            res = res * 10 + n%10;
            n /= 10;
        }
        System.out.println("Reverse of the number: " + res);
        sc.close();
    }

}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> javac Reversenum.java
PS C:\Users\MY\Downloads\java\Assignment-1> java Reversenum
Enter a number: 12345
Reverse of the number: 54321
PS C:\Users\MY\Downloads\java\Assignment-1>
```

4..

```java
class Arrlen {
    public static void main(String[] args) {
        int arr[] = {1,2,3,4,5,6};
        System.out.println("The length of array is : "+arr.length);
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> javac Arrlen.java
PS C:\Users\MY\Downloads\java\Assignment-1> java Arrlen
The length of array is : 6
PS C:\Users\MY\Downloads\java\Assignment-1>
```

5..

```java
import java.util.*;

class Linearsearch
{
    public static void main(String[] args) {
        System.out.print("Enter the length of array: ");
        Scanner sc = new Scanner(System.in);
        int l = sc.nextInt(),arr[] = new int[l],i=0;
        System.out.print("Enter an array: ");
        for(i=0;i<l;i++)
            arr[i] = sc.nextInt();
        System.out.print("Enter the element: ");
        int x = sc.nextInt();
        for(i=0;i<l;i++)
            if(arr[i]==x)
                break;
        if(i<l)
            System.out.println("Element found at index : "+i);
        else
            System.out.println("Element not found...");
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> javac .\Linearsearch.java
PS C:\Users\MY\Downloads\java\Assignment-1> java Linearsearch
Enter the length of array: 5
Enter an array: 34 5 77 9 2
Enter the element: 9
Element found at index : 3
PS C:\Users\MY\Downloads\java\Assignment-1>
```

6..

```java
import java.util.*;
class Fibonacci {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of terms : ");
        int l = sc.nextInt();
        System.out.print("Ficonacci series : ");
        printfibo(l);
        sc.close();
    }
    public static void printfibo(int l) {
        int i=0, a=0, b=1;
        for(;i<l;i++)
        {
            System.out.print(a+", ");
            b = a+b;
            a = b-a;
        }
        System.out.println();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\Fibonacci.java
Enter the number of terms : 7
Ficonacci series : 0, 1, 1, 2, 3, 5, 8,
PS C:\Users\MY\Downloads\java\Assignment-1>
```

7..

```java
import java.util.*;
class SimpleInterest {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter Principal, Rate and Interest : ");
        int p=sc.nextInt(), r=sc.nextInt(), t=sc.nextInt();
        System.out.println("The Simple Interest is : "+p*r*t/100);
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\SimpleInterest.java
Enter Principal, Rate and Interest : 10000 8 2
The Simple Interest is : 1600
PS C:\Users\MY\Downloads\java\Assignment-1>
```

8..

```java
import java.util.Scanner;

class Reversenum
{
    public static void main(String[] args) {
        System.out.print("Enter a number: ");
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt(),res = 0;
        while(n!=0)
        {
            res = res * 10 + n%10;
            n /= 10;
        }
        System.out.println("Reverse of the number: " + res);
        sc.close();
    }

}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\Reversenum.java
Enter a number: 12345
Reverse of the number: 54321
PS C:\Users\MY\Downloads\java\Assignment-1>
```

9..

```java
import java.util.Scanner;

class Sumdig {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number : ");
        int n = sc.nextInt(), res = 0;
        while(n!=0)
        {
            res += n%10;
            n/=10;
        }
        System.out.println("Sum of the digits is : "+res);
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\Sumdig.java
Enter the number : 12345
Sum of the digits is : 15
PS C:\Users\MY\Downloads\java\Assignment-1>
```

10..

```java
import java.util.*;
import java.lang.Math;
class RealQuadratic {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the coefficients(ax2+bx+c=0) : ");
        int a=sc.nextInt(), b=sc.nextInt(), c=sc.nextInt();
```

```
        int d = b*b - 4*a*c;
        if(d>=0)
            System.out.println("The roots are : "+(-b+Math.sqrt(d))/2/a+"
and "+(-b-Math.sqrt(d))/2/a);
        else
            System.out.println("The roots are imaginary...");
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\RealQuadratic.java
Enter the coefficients(ax2+bx+c=0) : 1 -6 8
The roots are : 4.0 and 2.0
PS C:\Users\MY\Downloads\java\Assignment-1>
```

11..

```
import java.util.*;
class SumN {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of terms : ");
        int n = sc.nextInt();
        System.out.println("The sum of the n terms is : "+n*(n+1)/2);
        sc.close();
    }
}
```

output

```
PS C:\Users\MY\Downloads\java\Assignment-1> java .\SumN.java
Enter the number of terms : 10
The sum of the n terms is : 55
PS C:\Users\MY\Downloads\java\Assignment-1>
```

12..

```
import java.util.*;
class SumN2 {
```

```java
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of terms : ");
        int n = sc.nextInt(), sum = 0;
        for(int i=1;i<=n;i++)
            sum += (i*i);
        System.out.println("The sum of the n terms is : "+sum);
        sc.close();
    }
}
```

output