1.Write a Java Program to Print Reverse Numbers

```
public class Program24 {
	public static void main(String[] args) {
		int num=2874;
		int rev=0;
		while(num>0)
		{
			int  rem=num%10;
			rev=rev*10+rem;
			num=num/10;
		}
		System.out.println(rev);
	}
}
```

OUTPUT

4782

1. Write a java Program to given number is prime number or not.

```
public class PrimeNumber1 {
	public static void main(String[] args) {
		int n=5;
		int count=0;
		for(int i=1; i<=n; i++) {
			if(n%i==0) {
				count++;
			}
		}
		if(count==2) {
			System.out.println("is prime number");
		}
		else {
			System.out.priantln("is not prime number");
		}
	}
}
```

OUTPUT

```
5 is prime number
```

2. write a Java Program to find Factorial

```
public class Program18 {
	public static void main(String[] args) {
		int n=5;
		int
		fact=1;
		while(n>0)
		{
			fact=fact*n
			;
			n--;
		}
		System.out.println("5 Factorial: "+fact);
	}
```

```
}
```

OUTPUT

```
5  Factorial = 120
```

3.write a Java Program to Fibonaci Series

```
public class Program21 {
	public static void main(String[] args){
		int n=5;
		int
		fib1=0;int
		fib2=1;
		int fib3=fib1+fib2;
		while(n>0){
			System.out.println(fib1);
			fib1=fib2;
			fib2=fib3;
			fib3=fib1+fib2;
			n--;
		}
	}
}
```

OUTPUT

```
0
1
1
2
3
```

4. Write a Java Program to Number Palindrome.

```
public class Program26 {
	public static void main(String args[]){
		int n=454;
		int
		copy=n;
		int rem=0;
		int rev=0;
		while(n>0)
			rem=n%10;
			rev=rev*10+rem;
			n=n/10;
		}
		if(rev==copy) {
			System.out.println("palindrome number ");
		}
		else {
			System.out.println("not palindrome");
		}
	}
}
```

5.write a Java Program to find Square Root of 1 to 5

```
public class Program15 {
	public static void main(String[] args) {
		int start=1;
		int end=5;
		while(start<=end) {
		int square=start*start;
		System.out.println(start+" squareRoot= "+square);
```

```
            start++;
             }
      }
}
```

OUTPUT

```
1 squareRoot= 1
2 squareRoot= 4
3 squareRoot= 9
4 squareRoot= 16
5 squareRoot= 25
```

6. write a Java Program to Print 6th Tabel

```
public class Program16 {
      public static void main(String[] args) {
            int start=1;
            int end=10;
            int number=6;
            while(start<=end) {
                  int tables=start*number;

                  System.out.println(start+" * "+number+" = "+tables);
                  start++;
            }
      }
}
```

OUTPUT

```
1 *  6 = 6

2 *  6 = 12

3 *  6 = 18

4 *  6 = 24

5 *  6 = 30

6 *  6 = 36

7 *  6 = 42

8 *  6 = 48

9 *  6 = 54

10 * 6 = 60
```

7. write a Java Program to Print Even & Odd Numbers

```
public class Program17 {
	public static void main(String[] args) {
		int a=1;
		int b=10;
		while(a<=b) {
			if(a%2==0) {
				System.out.println("Even Number: "+a);
			}
			else {
				System.out.println("Odd Number : "+a);
			}

			a++;

		}

	}

}
```

OUTPUT

```
Odd Number : 1
Even Number: 2
Odd Number : 3
Even Number: 4
Odd Number : 5
Even Number: 6
Odd Number : 7
Even Number: 8
Odd Number : 9
Even Number: 10
```

8.write a Java Program to find Sum of all Number, Sum of all Even Number ,Sum of allOdd Number

```
public class Program19 {
	public static void main(String[] args) {
		int n=10;
		int sum=0;
		int
		evensum=0;int
		oddsum=0;
		while(n>0){
			sum=sum+n;
			if(n%2==0) {
				evensum=evensum+n;
			}
			else {
				oddsum=oddsum+n;
			}
			n--;
		}
		System.out.println("Sum of 10           : "+sum);
		System.out.println("EvenSum of 10 : "+evensum);
		System.out.println("OddSum of 10   : "+oddsum);
	}
```

```
}
OUTPUT:
Sum of 10  : 55
EvenSum of 10 : 30
OddSum of 10 : 25
```

8. write a Java Program to find 3^4

```
public class Program20 {

	public static void main(String[] args) {

		int base=3;

		int power=4;

		int

		result=1;

		while(power>0) {

			result=result*base;

			power--;

		}

		System.out.println(result);

	}

}
```

OUTPUT -- 81

9. Write a Java Program to convert Decimal to Binary. 45

```
public class Program22 {

	public static void main(String[] args) {

		int num=45;

		String bin=" ";

		while(num>0) {

			int

			rem=num%2;

			bin=rem+bin;

			num=num/2;

		}

		System.out.print(bin);

	}
```

```
 }
```

OUTPUT

```
101101
```

10. Write a Java Program to Find Count Of Digits

```
public class Program23 {
	public static void main(String[] args) {
		int
		num=38765;int
		digits=0; do
		{
			digits++;
			num=num/10
			;
		}while(num>0);
		System.out.println(digits);
	}
}
```

OUTPUT

```
5
```

11. Write a Java Program to Swap 2 No's without Using 3rd /Extra/tempVariable.

```
public class Program28 {
	public static void main(String[] args) {
		int a=10;
		int b=20;
		System.out.println("Before  Swaping  'a'=  "+a);
		System.out.println("Before  Swaping  'b'=  "+b);
		a=a+b;
		b=a-b;
		a=a-b;
		System.out.println();
```

```
            System.out.println("After Swaping 'a'= "+a);

            System.out.println("After Swaping 'b'= "+b);

      }

}
```

OUTPUT

```
Before Swaping 'a'= 10

Before Swaping 'b'= 20

After Swaping 'a'= 20

After Swaping 'b'= 10
```

12. Write a Java Program to Swap 2 No's with Using 3rd /Extra/temp Variable.

```
public class Program29 {

      public static void main(String[] args) {
            int n1=10;
            int n2=20;
            System.out.println("Before  Swaping  'n1'  =  "+n1);
            System.out.println("Before Swaping 'n2' = "+n2);
            int n3=n1;
            n1=n2
            ;
            n2=n3
            ;
            System.out.println("After Swaping 'n1' = "+n1);
            System.out.println("After Swaping 'n2' = "+n2);
      }

}
```

```
OUTPUT:
before swaping n1=10
before swaping n2=20
after swaping n1=20
after swaping n2=10
```

13. Write a Java Program to Add two Numbers Without Using'+' Operator.

```
public class Program30 {
      public static void main(String[] args) {
            int x=4;
            int y=3;
            while(x>0) {
                  y++;
                  x--;
            }

            System.out.println(y);

      }
}
```

OUTPUT

7

14. Write a java Program to given number is Strong Number or not.

```
public class StrongNumber {

	public static void main(String[] args) {

		int inputNumber = 145;

		int temp = inputNumber;

		int sum = 0;

		while(inputNumber>0) {

			int num=inputNumber%10;

			int fact=1; while(num>0)

			{

				fact=fact*num

				;num=num-1;

			}

			sum=sum+fact;

			inputNumber=inputNumber/10;
		}

		if(temp==sum) {

			System.out.println("Is a Strong Number");

		}

		else {

			System.out.println("Is Not a Strong Number");

		}

	}

}
```

OUTPUT:

```
145 is a strong number
```

15. Write a java Program to given number is Armstrong Number or not.

```
public class ArmstrongNumber {
  public static void main(String[] args) {
        System.out.println("enter a number");
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        int temp=n;
        int res=0;
        while(temp>0) {
              int num=temp%10;
              res=res+num*num*num;
              temp=temp/10;
        }
        if(res==n) {
              System.out.println(res+" Number is Armstrong number");
        }
        else {
              System.out.println(res+" Number is not Armstrong number");
        }
  }
}
```

OUTPUT:

```
153 is a  Amstrong Number
```

ARRAY PROGRAM

16. Program to remove duplicate Array

```
public class RemoveDuplicateArray {
public static void main(String[] args) {
  int[]a1= {10,20,30,10,20,10,30,40};
  System.out.println("before Sorting");
  for(int i=0;i<=a1.length-1;i++) {
        System.out.println(a1[i]);
  }
  //logic for sorting array
  System.out.println("after sorting array");
  int temp=0;
  for(int i=0;i<=a1.length-1;i++) {
        for(int j=0;j<=a1.length-2;j++) {
              if(a1[j]>a1[j+1]) {
                    temp=a1[j];
                    a1[j]=a1[j+1];
                    a1[j+1]=temp;
              }
        }
  }
//logic for removing duplicate array 10,10,10,20,20,30,30,40
  int[]a2=new int[a1.length];
  int j=0;
  for(int i=0;i<=a1.length-2;i++) {
        if(a1[i]!=a1[i+1]) {
              a2[j]=a1[i];
              j++;
        }
  }
```

```
        a2[j]=a1[a1.length-1];
        //print the result
        for(int i=0;i<=j;i++) {
                System.out.println(a2[i]);
                }
        }
    }
```

OUTPUT

```
before Sorting
10
20
30
10
20
10
30
40
after sorting array
10
20
30
40
```

17. Program to swap an Array of equal size

```
public class Progrm01 {

      public static void main(String[] args) {

            int[] arr1 = {1,2,5};

            int[] arr2 = {3,6,7};

            int[] arr3 = new int[arr1.length];

            System.out.println("Before Swapping");

            for (int i = 0; i < arr1.length; i++) {

                  System.out.print(arr1[i]+" ");

            }

            System.out.println();

            for (int i = 0; i < arr3.length; i++) {

                  System.out.print(arr2[i]+" ");

            }

            for (int i = 0; i < arr1.length; i++) {

                  arr3[i]=arr1[i];

            }

            for (int i = 0; i < arr2.length; i++) {
```

```
                arr1[i]=arr2[i];
            }
            for (int i = 0; i < arr3.length; i++) {
                arr2[i]=arr3[i];
            }
            System.out.println();
            System.out.println("After swaping");
             for (int i = 0; i < arr1.length; i++) {
                System.out.print(arr1[i]+" ");
            }
            System.out.println();
            for (int i = 0; i < arr2.length; i++) {
                System.out.print(arr2[i]+" ");
            }
      }
}
```

OUTPUT:

```
Before Swapping
1 2 5
3 6 7
After
swaping3 6 7
1 2 5
```

18. Merge 2 sorted integer Array into 1 Array

```
public class MergeTwoArrays {
      public static void main(String[] args) {
            int[] array1= {4,2,8,9,10};
            int[] array2= {1,7,3,6,5};
            int[] array3=new int[array1.length+array2.length];
```

```
            int p=0;
            for(int i=0; i<array1.length; i++) {
                  array3[p]=array1[i];
                  p++;
            }
            for(int i=0; i<array2.length; i++) {
                  array3[p]=array2[i];
                  p++;
            }
            for(int i=0; i<array3.length; i++) {
                  for(int j=i; j<array3.length; j++) {
                        if(array3[i]>array3[j]) {
                              int temp=array3[i];
                              array3[i]=array3[j];
                              array3[j]=temp;
                        }
                  }
                  System.out.print(array3[i]+" ");
            }
      }
}
```

OUTPUT:

```
1 2 3 4 5 6 7 8 9 10
```

19. Write a Java Program to Find Biggest Element an GivenArray 45,2,67,89,65,71

```
public class BiggestElementInArray {
        public static void main(String[] args) {
            int[] array= {45,2,67,43,89,65,71};
         int max=array[0];
         for(int i=1; i<array.length; i++) {
              if(array[i]>max) {
                   max=array[i];
              }
         }
         System.out.println("Biggest Element: "+max);
    }
}
```

OUTPUT:

```
Biggest Element: 89
```

20. Write a Java Program to Find Smallest Element an GivenArray 45,2,67,89,65,71

```
public class SmallestElementInArray {
     public static void main(String[] args) {
          int[] array= {45,2,67,43,89,65,71};
          int small=array[0];
          for(int i=1; i<array.length; i++) {
               if(array[i]<small) {
```

```
                    small=array[i];

                }

            }

            System.out.println("Smallest Element: "+small);

      }

}
```

OUTPUT:

```
Smallest Element: 2
```

21. Write a Java Program to Find Even Sum Given Array 76,45,35,76,98,12,43,56,76,78,23

```
public class SumOfEvenNumber {

      public static void main(String[] args) {

            int[] arr={76,45,35,76,98,12,43,56,76,78,23};

            int even=0;

            for(int i=0; i<arr.length; i++) {

                  if(arr[i]%2==0) {

                        even=arr[i]+even;

                  }

            }

            System.out.println("SumOfEvenNumber= "+even);

      }

}
```

OUTPUT:

```
SumOfEvenNumber= 472
```

22. Write a Java Program to Find Even Number an Given Array
34,65,78,97,34,67,24,35,90,65

```
public class EvenNumber {

	public static void main(String[] args) {

		int[] array= {34,65,78,97,34,67,24,35,90,65};

		for(int i=0; i<array.length; i++) {

			if(array[i]%2==0) {

				System.out.println(array[i]);

			}

		}

	}

}
```

OUTPUT:

```
34

78

34

24

90
```

23. Write a Java Program to Sort Ascending Order an GivenArray 98,45,67,34,87,23,13

```
public class AscendingOrder {

	public static void main(String[] args) {

		int[] array= {98,45,67,34,87,23,13};

		System.out.println("Before Swapping");

		for(int i=0; i<array.length; i++) {

			System.out.print(array[i]+" ");

		}

		for(int i=0; i<array.length; i++) {

			for(int j=i; j<array.length; j++) {

				if(array[i]>array[j]) {

					int temp=array[i];

					array[i]=array[j];

					array[j]=temp;

				}

			}

		}

		System.out.println("After Swapping");

		for(int i=0; i<array.length; i++) {

			System.out.print(array[i]+" ");

		}

	}

}
```

OUTPUT:

```
Before Sorting

98 45 67 34 87 23 13

After Sorting

13 23 34 45 67 87 98
```

24. Write a Java Program to Sort Decending Order an GivenArray 34,12,43,13,45,76,87,35,67

```
public class SortingDecendingOrder {

	public static void main(String[] args) {

		int[] array= {34,12,43,13,45,76,87,35,67};

		System.out.println("Before Sorting");

		for(int i=0; i<array.length; i++) {

			System.out.print(array[i]+" ");

		}

		for(int i=0; i<array.length; i++) {

			for(int j=i; j<array.length; j++) {

				if(array[i]<array[j])  {

					int  temp=array[i];

					array[i]=array[j];

					array[j]=temp;

				}

			}

		}

		System.out.println("After Sorting");
```

```
            for(int i=0; i<array.length; i++) {
                  System.out.print(array[i]+" ");
            }
      }
}
```

OUTPUT:

```
Before Sorting
34 12  43 13 45    76 87 35 67
After  Sorting
87 76  67 45 43    35 34 13 12
```

25. Write a Java Program to Swap First and Last Element anGiven Array 5,2,3,4,1

```
public class SwapFirstAndLastElementinArray {
      public static void main(String[] args) {
            int[] array= {5,2,3,4,1};
            int size=array.length; int
            temp=array[0];
            array[0]=array[size-1];
            array[size-1]=temp;
            for(int i=0; i<array.length; i++) {
                  System.out.print(array[i]+" ");
            }
      }
}
```

OUTPUT:

```
1 2 3 4 5
```

26. Write a Java Program to Reverse an Given Array10,20,30,40,50

```
import java.lang.reflect.Array;

public class ReverseArray {

	public static void main(String[] args) {

		int[] array={10,20,30,40,50,60,70,80,90};

		System.out.println("Before");

		for(int i=0; i<array.length; i++) {

			System.out.print(array[i]+" ");

		}

		System.out.println();

		System.out.println("After");

		for(int i=array.length-1; i>=0; i--) {

			System.out.print(array[i]+" ");

		}

	}

}
```

OUTPUT:

```
Before

10 20 30 40 50 60 70 80 90

After

90 80 70 60 50 40 30 20 10
```

27. Write a Java Program to Reverse an Given Array10,20,30,40,50

```
import java.lang.reflect.Array;

 public class ReverseArray {

        public static void main(String[] args) {

             int[] array1={10,20,30,40,50};

           int i=0;

            int j=array1.length-1;

            while(i<=j) {

                  int temp=array1[i];

                  array1[i]=array1[j];

                  array1[j]=temp;

                  i++;

                  j--;

            }

            for(i=0; i<array1.length; i++) {

                  System.out.print(array1[i]+" ");

            }

      }

}
```

OUTPUT:

```
50 40 30 20 10
```

28. Write a Java Program to Find Frequency of Given Array 1,3,4,6,4,6,3,8,1,9,1,2,3,4.

```
public class DublicatValue {

	public static void main(String[] args) {

		int[] array= {1,3,4,6,4,6,3,8,1,9,1,2,3,4};

		int[] freq=new int[array.length];

		for(int i=0; i<array.length; i++) {

			int no=array[i];

			int count=1;

			for(int j=i+1; j<array.length; j++) {

				if(no==array[j]) {

					count++;

					freq[j]=-1;

				}

			}

			if(freq[i]!=-1) {

				freq[i]=count

				;

			}

		}

		for(int i=0; i<array.length; i++) {

			if(freq[i]>0) {

				System.out.println(array[i]+" Occurs "+freq[i]+" times");

			}

		}

	}
```

```
}
```

OUTPUT:

```
1 Occurs 1 times

3 Occurs 3 times

4 Occurs 3 times

6 Occurs 2 times

8 Occurs 1 times

9 Occurs 1 times

2 Occurs 1 times
```

29. Write a Program to find 3rd largest,2nd lasrgest,3rd smallest,2nd smallest element in an given array 10, 45, 5,6, 12, 43, 1, 9.

```
public class LastgestAndSmallest {

	public static void main(String[] args) {

		int[] array = new int[] { 10, 45, 5, 6, 12, 43, 1, 9 };

		int temp = 0;

		for (int i = 0; i < array.length; i++) {

			for (int j = i + 1; j < array.length; j++) {

				if (array[i] > array[j]) {

					temp = array[i];

					array[i] = array[j];

					array[j] = temp;

				}

			}

		}

		int size=array.length;
```

```
            for (int i = 0; i < array.length; i++) {
                  System.out.print(array[i] + " ");
            }
            System.out.println();
            System.out.println("3rd smallest Element: "+array[2]);
            System.out.println("3rd Largest Element : "+array[size-3]);
            System.out.println("2nd smallest Element: "+array[1]);
            System.out.println("2nd Largest Element : "+array[size-2]);
      }
}
```

OUTPUT:

```
3rd   smallest Element:   6
3rd   Largest Element :   12
2nd   smallest Element:   5
2nd   Largest Element :   43
```

STRING PROGRAMS

```
//1. CharAt()
public class StringProgram {
      public static void main(String[] args) {
            String str="Developer";
            System.out.println(str.charAt(4));
            System.out.println(str.charAt(3));
            System.out.println(str.charAt(0));
      }
```

```
}
OUTPU
T:
 l
 e
 D
//2.length()
public class StringProgram {
	public static void main(String[] args) {
		String str1="Qspiders";
		System.out.println(str1.length());
		String str2="java_8";
		System.out.println(str2.length());
		String str3="Software Engineer";
		System.out.println(str3.length());
	}
}
OUTPU
T:
8
6
17
//3.toCharArray()
public class StringProgram {
	public static void main(String[] args) {
		String s1="Testing";
		char[] ch=s1.toCharArray();
```

```
            for(int i=0; i<ch.length; i++) {
                  System.out.println(ch[i]);
            }
      }
}
```

OUTPU

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```
// 4.IndexOf()
public class StringProgram {
      public static void main(String[] args) {
            String s2="Developer";
            System.out.println(s2.indexOf('v'));
            System.out.println(s2.indexOf('l'));
            System.out.println(s2.indexOf('h'));int
            a=s2.indexOf('e');
            int b=s2.indexOf('e',a+1);
            int c=s2.indexOf('e',b+1);
            System.out.println("1st: "+a+" 2nd: "+b+" 3rd: "+ c);
      }
```

```
}
OUTPU
T:
2
4
-1
1st: 1 2nd: 3 3rd: 7
// 5.Last IndexOf
public class StringProgram {
	public static void main(String[] args) { String
		s3="Developer";
		System.out.println(s3.lastIndexOf('p'));
		System.out.println(s3.lastIndexOf('D'));
		System.out.println(s3.lastIndexOf('e'));
	}
}
OUTPU
T:
6
0
7
// 6.Contains()
public class StringProgram {
	public static void main(String[] args) { String
		s4="Enginear";
		System.out.println(s4.contains("job"));
		System.out.println(s4.contains("gin"));
```

```
	}
}
OUTPU
T:
fal
se
tru
e
// 7.startWith()
public class StringProgram {
	public static void main(String[] args) { String
		s5="computer";
		System.out.println(s5.startsWith("com"));
		System.out.println(s5.startsWith("om"));
		System.out.println(s5.startsWith("comp"));
	}
}
OUTPU
T:
tru
e
fal
se
tru
e
// 8. EndsWith()
public class StringProgram {
	public static void main(String[] args) { String
		s6="Developer";
		System.out.println(s6.endsWith("per"));
```

```
System.out.println(s6.endsWith("lope"));

System.out.println(s6.endsWith("er"));
```

```
	}
}
```

OUTPU

T:

tru

e

fal

se

tru

e

```
// 9.Equals()
public class StringProgram {
	public static void main(String[] args) { String
		s7="java";
		System.out.println(s7.equals("java"));
		System.out.println(s7.equals("tough"));
		System.out.println(s7.equals("Java"));
	}
}
```

OUTPU

T:

tru

e

fal

se

fal

se

```
//10.EqualsIgnoreCase()
public class StringProgram {
	public static void main(String[] args) {
```

```
String s8="python";

System.out.println(s8.equalsIgnoreCase("Python"));

System.out.println(s8.equalsIgnoreCase("tough"));
```

```
            System.out.println(s8.equalsIgnoreCase("python"));
      }
}
```

OUTPUT:

tru

e

fal

se

tru

e

```
//11.toUpperCase()
public class StringProgram {
      public static void main(String[] args) { String
            s9="tamizh";
            System.out.println(s9.toUpperCase());
      }
}
```

OUTPU

T:

TAMIZH

```
//12.toLowerCase()
public class StringProgram {
      public static void main(String[] args) { String
            s10="TAMIZH";
            System.out.println(s10.toLowerCase());
      }
}
```

OUTPUT:

tamizh

```
//13.trim()
public class StringProgram {
	public static void main(String[] args) {
		String s11="	Core Java ";
		System.out.println(s11);
		System.out.println(s11.trim());
	}
}
```

OUTPU

T:

```
    Core
JavaCore
Java
```

```
//14.subString()
public class StringProgram {
	public static void main(String[] args) { String
		s12="developer";
		System.out.println(s12.substring(6));
		System.out.println(s12.substring(3,8));
		System.out.println(s12.substring(0,7));
	}
}
```

OUTPUT:

per

elope

devel

op

```
// 15.Split()
 public class StringProgram {
      public static void main(String[] args) {
            String s13="Qspider Software Training center";
            String[] arr=str.split(" ");
            for(int i=0; i<arr.length; i++) {
                  System.out.print(arr[i]+" , ");
            }
      }
}
```

OUTPUT:

Qspider , software , Training , center ,

Check given Number is Binary Number or Not

```
public class BinaryOrNot {
      public static void main(String[] args){
            String str ="101010";
            boolean data = false;
            for (int i = 0; i < str.length(); i++) {
                  if (str.charAt(i)=='0'||str.charAt(i)=='1') {data
                        = true;
                  }
```

```
                else{
                      data =
                      false;break;
                }
          }
          if (data) {
                System.out.println("Binary");
          }
          else {
                System.out.println("Is Not Binary");
          }
     }
}
```

OUTPUT:

```
101010 : Binary
```

Check given string contains only numbers or not.

```
public class NumberOrNot {
     public static void main(String[] args) {
          String s = "abc12abc";
          boolean data = false;
          for (int i= 0;i < s.length(); i++) {
                if (s.charAt(i)>='0'&& s.charAt(i)<='9') {data
                      = true;
                }
                else {
```

```
                        data =
                        false;break;
                  }
            }
            if (data) {
                  System.out.println("Number");
            }
            else {
                  System.out.println("Not A Number");
            }
      }
}
```

OUTPUT:

```
Not A Number
```

Write a Java Program to How to Remove Empty Space in String.

```
public class RemoveWhiteSpace {
      public static void main(String[] args) {
            String str="Remove white spaces"; str
            = str.replaceAll("\\s+", "");
            System.out.println("String after removing all the white spaces : "
      + str);
      }
}
```

OUTPUT:

```
String after removing all the white spaces : Removewhitespaces
```

Write a Java Program to How to Remove Empty Space in String.

```
public class Program22 {

	public static void main(String[] args) {
		String str="Chennai City of India";
		char[]  ch=str.toCharArray(); str="";
		for(int i=0; i<ch.length; i++) {
			if(ch[i]!=' ') {
				str=str+ch[i]
				;
			}
		}
		System.out.println(str);
	}
}
```

Output:

```
ChennaiCityofIndia
```

Write a Java Program to Count the Total Number Of Character presentin a String .

```
public class NumberOfCharacter {
	public static void main(String[] args) {
		String str = "India is The best Country in a world";
		int count = 0;
		for(int i = 0; i < str.length(); i++) {
			if(str.charAt(i) != ' ') {
				count++;
```

```
            }

        }

            System.out.println("Total number of characters: " + count);

    }

}
```

OUTPUT:

```
Total number of characters: 29
```

Write a Java Program to Count the Total Number Of Vowels &Consonents present in a String .

```
public class VowelsAndConsonents {

    public static void main(String[] args) {

        int vowels = 0;

        int consonents = 0;

        String str = "This is a really simple sentence";str =

        str.toLowerCase();

        for(int i = 0; i < str.length(); i++) {

            if(str.charAt(i) == 'a' || str.charAt(i) == 'e' || str.charAt(i)
        == 'i' || str.charAt(i) == 'o' || str.charAt(i) =='u') {

                vowels++;

            }

            else if(str.charAt(i) >= 'a' && str.charAt(i)<='z') {

                consonents++;

            }

        }

        System.out.println("Number of vowels: " + vowels);
```

```
            System.out.println("Number of consonants: " + consonents);
      }
}
```

OUTPUT:

```
Number of vowels: 10
Number of consonants: 17
```

Write a Java Program to Replace a LowerCase into UpperCase and ViceVersa in a String .

```
public class LoverCharIntoUpperChar {
      public static void main(String[] args) {
            String str1="Great Power";
            StringBuffer newStr=new StringBuffer(str1);
            for(int i = 0; i < str1.length(); i++) {
                  if(Character.isLowerCase(str1.charAt(i))) { newStr.setCharAt(i,
                  Character.toUpperCase(str1.charAt(i)));
                  }
                  else if(Character.isUpperCase(str1.charAt(i))) { newStr.setCharAt(i,
                  Character.toLowerCase(str1.charAt(i)));
                  }
            }
            System.out.println("String after case conversion : " + newStr);
      }
}
```

OUTPUT:

```
String after case conversion : gREAT pOWER
```

Write a Java Program to String Palindrome.

```
import java.util.Scanner;

public class Program27 {

	public static void main(String[] args) {

		Scanner in=new Scanner(System.in);

		System.out.print("Enter a String: ");

		String str=in.next();

		String reverse="";

		int length=str.length();

		for(int i=length-1; i>=0; i--) {

			reverse=reverse+str.charAt(i);

		}

		if(str.equals(reverse)) {

			System.out.println("Is a Palindrome");

		}

		else {

			System.out.println("Is not a Palindrome");

		}

	}

}
```

OUTPUT

```
Enter a String: MADAM
```

Is a Palindrome

Write a Java Program to Reverse String.

```
public class ReverseString {

	public static void main(String[] args) {

		String str="Chennai";

		char[] ch=str.toCharArray();

		str=" ";

		for(int i=ch.length-1; i>=0; i--) {

			str=str+ch[i];

		}

		System.out.println(str);

	}

}
```

OUTPUT:

```
iannehC
```

Java Program to find the maximum and minimum occurring character ina string

```
import java.util.*;

public class MaximumAndMinimium{

	public static void main(String[] args) {

		Scanner sc=new Scanner(System.in);

		System.out.println("Enter the string: ");

		String str=sc.nextLine();

		int[] freq = new int[str.length()];

		char minChar = str.charAt(0);

		char maxChar = str.charAt(0);

		int min;

		int max;

		char string[] = str.toCharArray();

		for(int i = 0; i < string.length; i++) {

			freq[i] = 1;

			for(int j = i+1; j < string.length; j++) {

				if(string[i] == string[j] && string[i] != ' ' &&
			string[i] != '0')

				{

				freq[i]++;

				string[j] = '0';

			}

		}

	}

	min = max = freq[0];
```

```
      for(int i = 0; i <freq.length; i++) {
            if(min > freq[i] && freq[i] != '0') {min
                  = freq[i];
                  minChar = string[i];
            }
            if(max < freq[i]) {
                  max = freq[i];
                  maxChar = string[i];
            }
      }
      System.out.println("Minimum occurring character: " + minChar);
      System.out.println("Maximum occurring character: " + maxChar);
      }
}
```

OUTPUT:

```
Enter the string:
hello world
Minimum occurring character: h
Maximum occurring character: l
```

Java Program to find the Dublicate word in a String .

```
public class DuplicateWord {

	public static void main(String[] args) {

		String string = "Big black bug bit a big black dog on his bigblack
		nose";

		int count;

		string = string.toLowerCase();

		String words[] = string.split(" ");

		System.out.println("Duplicate words in a given string : ");

		for(int i = 0; i < words.length; i++) {

			count = 1;

			for(int j = i+1; j < words.length; j++) {

				if(words[i].equals(words[j])) {

					count++;

					words[j] = "0";

				}

			}

			if(count > 1 && words[i] != "0") {

				System.out.println(words[i]);

			}

		}

	}

}
```

OUTPUT:

```
Duplicate words in a given string :

big

bla

ck
```

Java Program to find the Frequency Of Character in a String .

```
public class FrequencyCharacter{

	public static void main(String[] args) {

		String str = "picture perfect";

	int[] freq = new int[str.length()];

		char string[] = str.toCharArray();

		for(int i = 0; i <str.length(); i++) {

			freq[i] = 1;

			for(int j = i+1; j <str.length(); j++) {

				if(string[i] == string[j]) {

					freq[i]++;

					string[j] = '0';

				}

			}

		}

		System.out.println("Characters and their corresponding
	frequencies");

		for(int i = 0; i <freq.length; i++) {

			if(string[i] != ' ' && string[i] != '0') {

				System.out.println(string[i] + "-" + freq[i]);

			}

		}
```

```
	}
}
```

OUTPUT:

```
Characters and their corresponding frequenciesp-2
i-1
c-2
t-2
u-1
r-2
e-3
f-1
```

Java Program to Reverse a String in java word by word .

```
import java.util.Scanner;
public class ReverseStringWordByWordProgram {
	public static String reverseTheSentence(String inputString){
		String[] words = inputString.split("\\s");
		String outputString = "";
		for (int i = words.length-1; i >= 0; i--){ outputString
			= outputString + words[i] + " ";
		}
		return outputString;
	}
	public static void main(String[] args) {
```

```
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter Input String :");
            String inputString = sc.nextLine();
            String outputString = reverseTheSentence(inputString);
            System.out.println("Input String : "+inputString);
            System.out.println("Output String : "+outputString);
            sc.close();
      }
}
```

OUTPUT:

```
Enter Input String :
hello world
Input String : hello world
Output String : world hello
```