# String

## String:-

- String is a predefined final class present in java.lang package.
- It is a group of character which is enclosed in double quotes(“ “).
- Anything which is written inside  a double quotes is a string.
- String is a predefined non-primitive datatype.

# Questions

**1)WAJP to convert the given string into lowercase**

```
class StringToLowercase
{
	public static void main(String[] args)
	{
		String s="JAVA";
		System.out.println(s.toLowerCase());
	}
}
```

**2)WAJP to convert the given string into lowercase without using built in method.**

```
class StringIntoLowerCaseWithoutBuiltInMethod
{
	public static void main(String[] args)
	{
		String s="JAVA";
		for(int i=0;i<s.length();i++)
		{
```

```
                int res=s.charAt(i)+32;
            System.out.print((char)res);
        }
}
}
```

**3)WAJP to convert the given string into Uppercase without using Built-In method.**

```
class StringIntoUpperCaseWithoutUsingBuiltInMethod
{
        public static void main(String[] args)
        {
            String s="program";
            for(int i=0;i<s.length();i++)
            {
                int res=s.charAt(i)-32;
            System.out.print((char)res);
        }
        }
}
```

**4) WAJP to identify the sum of digits from the given String.**

```
class SumOfDigitOfString
{
        public static void main(String[] args)
        {
            String s="ab12c@4d8#";
            int sum=0;
            for(int i=0;i<s.length();i++)
```

```
                {
                        if(s.charAt(i)>='0' && s.charAt(i)<='9'){
                                sum=sum+s.charAt(i)-'0';
                        }
        }
        System.out.println("The sum is: "+sum);
}
}
```

**5)WAJP to count the number of vowels , consonants, digits , special charcters.**

```
class CountSplCharVowelsDigitsCosonant2
{

   public static void main(String[] args) {
      String s = "ab12c@4d8#";
      s = s.toUpperCase(); // Convert to uppercase for uniform vowel checking

      int vowelCount = 0, digitCount = 0, consonantCount = 0, specialCharCount = 0;

      for (int i = 0; i < s.length(); i++) {
         char ch = s.charAt(i);

         if(ch>='A' && ch<='Z')
                        {
         if (ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U') {
            vowelCount++;
                        }
                        else{
```

```
                    consonantCount++;
                }
            } else if (ch >= '0' && ch <= '9') {
                digitCount++;
            } else {
                specialCharCount++;
            }
        }
        System.out.println("The count of Vowels is: " + vowelCount);
        System.out.println("The count of Digits is: " + digitCount);
        System.out.println("The count of Consonants is: " + consonantCount);
        System.out.println("The count of Special Characters is: " + specialCharCount);
    }
}
```

**6)WAJP to count the number of spaces present in a given string.**

```
class CountSpaces
{
    public static void main(String[] args)
    {
        String s=" Java Is A Programming Langurage ";
        int count=0;
        for(int i=0;i<s.length();i++)
        {
        char ch=s.charAt(i);
        if(ch==' ')
        {
            count++;
```

```
                }
        }
        System.out.println("The number of Spaces is: "+count);
}
}
```

**7)WAJP to convert the even index charchter into Uppercase.**

```
class EvenIndexCharcterIntoUpperCase
{
        public static void main(String[] args)
        {
                String s="volley ball";
                for(int i=0;i<s.length();i++)
                {
                        char ch=s.charAt(i);
                        if(i%2==0 && ch>='a' && ch<='z')
                        {
                                System.out.print((char)(ch-32));
        }
        else{
                System.out.print(ch);
        }
}
        }
}
```

**8)WAJP to convert the odd index Character to UpperCase.**

```
class OddIndexCharUpperCase
{
	public static void main(String[] args)
	{
		String s="volley ball";
		for(int i=0;i<s.length();i++)
		{
			char ch=s.charAt(i);
			if(i%2!=0 && ch>='a' && ch<='z')
			{
				System.out.print((char)(ch-32));
	}
	else{
		System.out.print(ch);
	}
}
	}
}
```

**9)WAJP To remove the spaces from the given String.**

```
class RemoveSpaces
{
	public static void main(String[] args)
	{
		String s=" Java Is A Programming Languange ";
		int count=0;
		for(int i=0;i<s.length();i++)
```

```
                {
                char ch=s.charAt(i);
                if(ch!=' ')
                {
                        System.out.print(ch);
                }
}
        }
}
```

**Way-2:-**

```
class RemoveSpace2
{
        public static void main(String[] args)
        {
                String s=" Java Is A Programming Languange ";
                String s1=s.replace(" ","");
                System.out.println(s1);
        }
}
```

**10)WAJP to count the words present in a given string.**

```
class CountWords
{
        public static void main(String[] args)
        {
                String s="java is a Java";
                int count=1;
```

```
            if(s.charAt(0)==' ')
            {
                count=0;
            }
            for(int i=0;i<s.length();i++)
            {
                if(s.charAt(i)==' ' && s.charAt(i+1)!=' ')
                {
                    count++;
                }
            }
            System.out.println(count);
        }
}
```

**11)WAJP To remove the vowels from the given string.**

```
class RemoveVowels
{
    public static void main(String[] args)
    {
        String s = "Java is Programming language.";
        String s1 = "";
        for(int i=0; i<s.length(); i++) {
            char ch = s.charAt(i);
            if(ch!='a' &&  ch!='e'&& ch!='i' && ch!='o'&& ch!='u')
            {
                s1 = s1 + ch;
            }
```

```
                }
                System.out.println(s1);
        }
}
```

**12)WAJP to count the number of Charcters present in each word**

```
class CountCharInWord
{
        public static void main(String[] args)
        {
                String s="Java Is A Programming Language";
                int count=0;
                for(int i=0;i<s.length();i++)
                {
                        char ch=s.charAt(i);
                        if(ch!=' ')
                        {
                                count ++;
                }
                else{
                        System.out.println(count);
                        count=0;
        }
                }
              System.out.println("The count of Character in a String is: "+count);
         }
        }
```

**13)WAJP to print the even Number Of words from the given String.**

```
class EvenNumberOfWordPrint
{
	public static void main(String[] args)
	{
		String str="Java Is A Programming Language";
		String[] arr=str.split(" ");
		for(int i=0;i<arr.length;i++)
		{
			if(arr[i].length()>0)
				if(arr[i].length()%2==0)
			{
			System.out.println(arr[i]+" = "+arr[i].length());
	  }
		}
		}
	  }
```

**14) WAJP to print the number of charcters of each word along with the word**

```
class PrintNumberOfCharAlongWithWord
{
	public static void main(String[] args)
	{
		String str="Java Is A Programming Language";
		String[] arr=str.split(" ");
		for(int i=0;i<arr.length;i++)
		{
```

```
                    if(arr[i].length()>0)
                    {
                    System.out.println(arr[i]+" = "+arr[i].length());
          }
               }
          }
}
```

**15)WAJP To convert Each word Initial letter in UpperCase.**

```
class EachWordInitialLetterUpperCase
{
     public static void main(String[] args)
     {
          String str="java is a programming  language";
          String[] s=str.split(" ");
          String a="";
          for(int i=0;i<s.length;i++)
          {
               if(s[i].length()>0)
               {
               if(i==s.length-1)
               {
                    a+=(char)(s[i].charAt(0)-32)+s[i].substring(1);
               }
               else{
                    a+=(char)(s[i].charAt(0)-32)+s[i].substring(1)+" ";
```

```
                    }
                }
            }
System.out.print(a);
}
}
```

**//Way=2**

```
class EachWordInitialLetterUpperCase3
{
    public static void main(String[] args)
    {
        String s="java is a programming language";
        char [] ch=s.toCharArray();
        for(int i=0;i<ch.length;i++)
        {
            if(i==0 && ch[i]!=' ')
            {
                ch[i]=(char)(ch[i]-32);
            }
            if(ch[i]==' ' && ch[i+1]!=' ')
            {
                ch[i+1]=(char)(ch[i+1]-32);
            }
        }
        for(int i=0;i<ch.length;i++)
        {
        System.out.print(ch[i]);
```

```
        }
        }
}
```

**16)WAJP to count the characters present in a given String.**

```
class CountChar
{
        public static void main(String[] args)
        {
                String s="java is a programming language";
                int count=0;
                for(int i=0;i<s.length();i++)
                {
                        if(s.charAt(i)!=' ')
                        {
                                count++;
                        }
                }
                System.out.println(count);
        }
}
```

**17)WAJP to Print The duplicates char from a string.**

```
class DuplicatePrint
{
	public static void main(String[] args)
	{
		String s="language";
		char[] ch=s.toCharArray();
		for (int i=0;i<ch.length;i++ )
		{
			int count=1;
		   for (int j=i+1;j<ch.length;j++ )
		   {
				if(ch[i]==ch[j] && ch[i]!=' ')
			   {
				count++;
				ch[j]=' ';
			    }
		   }
			if (count>1)
			{
			  System.out.println(ch[i]+" "+count);
			}
	}
}
}
```

**18)WAJP to remove the duplicates from the given string.**

```
class RemoveDuplicates
{
        public static void main(String[] args)
        {
                String s="language";
                char[] ch=s.toCharArray();
                for (int i=0;i<ch.length;i++ )
                {
                   for (int j=i+1;j<ch.length;j++ )
                   {
                                if(ch[i]==ch[j])
                            {
                                ch[j]=' ';
                             }
                   }
                        if (ch[i]!=' ')
                        {
                          System.out.println(ch[i]);
                        }
                 }
              }
        }
```

**19)WAJP Reverse the given string.**

```
class ReverseString2
{
	public static void main(String[] args)
	{
		String str="Hello world";
		for(int i=str.length()-1;i>=0;i--)
		{
		System.out.print(str.charAt(i));
	}
}
}
```

**Way:-2**

```
class ReverseString
{
	public static void main(String[] args)
	{
		String s="Hello";
		StringBuffer s1=new StringBuffer(s);
		System.out.println(s1.reverse());
	}
}
```

**20)WAJP to reverse the sentence .**

```
class ReverseSentence
{
	public static void main(String[] args)
	{
		String str="E sala cup namde";
		String[] s1=str.split(" ");
		for(int i=s1.length-1;i>=0;i--)
		{
		System.out.print(s1[i]+" ");
	}
	}
}
```

**21)WAJP check given string is anagram or not.**

```
import java.util.Arrays;
class AnagramOrNot
{
	public static void main(String[] args)
	{
		String s1="Silent";
		String s2="Listen";
		if(s1.length()==s2.length())
		{
			s1=s1.toLowerCase();
			s2=s2.toLowerCase();
		char[] ch1=s1.toCharArray();
```

```
            char[] ch2=s2.toCharArray();
            Arrays.sort(ch1);
            Arrays.sort(ch2);
             int count=0;
             int i=0;
             int j=0;
             while(i<ch1.length)
            {
                    if(ch1[i]==ch2[j])
                            count++;
                    else
                           break;
                    i++;
                    j++;
            }
            if( count==s1.length())
            {
                    System.out.println("Given 2 strings are anagram of each other");
    }
    else{
            System.out.println(" not anagram ");
          }
            }
    else{
            System.out.println("Length is not matching so it is not Anagram");
    }
    }
}
```

**22)WAJP To check that given string is Pangram or not.**

```
class PangramOrNot2
{
	public static void main(String[] args)
	{
		String s="abcdefghijklmnopqrstuvwxyz";
		s=s.toLowerCase();
		int count=0;
		char[] ch=s.toCharArray();
		for(int i=0;i<ch.length;i++)
		{
			for(int j=i+1;j<ch.length;j++)
			{
				if(ch[i]==ch[j])
				{
					ch[j]=' ';
				}
			}
	    }
	for(int i=0;i<ch.length;i++)
		{
		if(ch[i]>='a' && ch[i]<='z' && ch[i]!=' ')
			{
			count++;
			}
		}
			if(count==26)
```

```
                    System.out.println("Panagram");
                else
                    System.out.println("Not Panagram");
            }
        }
```

**23)WAJP To check given string is palindrome or not.**

```
import java.util.Arrays;
class PalindromeOrNot
{
    public static void main(String[] args)
    {
        String s="Madam";
        String s2=s.toLowerCase();
        String rev="";
        for(int i=s2.length()-1;i>=0;i--)
        {
        rev=rev+s2.charAt(i);
        }
        if (s2.equals(rev))
        System.out.println("String is Palindrome");
        else
        System.out.println("String is Not Palindrome");
    }
}
```

**24)WAJP To print the largest and smallest words .**

```
class LongestandSmallestWord
{
   public static void main(String[] args)
   {
      String s="Java is a Programming Language";
      String[] s1=s.split(" ");
      int max=Integer.MIN_VALUE;
      int min=Integer.MAX_VALUE;
      int sm=0;
      int l=0;
      for(int i=0;i<s1.length;i++){
            if(min>s1[i].length()){
               min=s1[i].length();
               sm=i;
            }
            if(max<s1[i].length()){
               max=s1[i].length();
               l=i;
            }
      }
      System.out.println(s1[l]+" "+max);
      System.out.println(s1[sm]+" "+min);
   }
}
```

**25) WAJP to remove the extra spaces to the string.**

```
class ExtraSpace
{
   public static void main(String[] args)
   {
      String s="Java  is a   Programming  Lang";
      s=s.trim();
      String s1="";
      for(int i=0;i<s.length();i++){
         if(s.charAt(i)==' '&&s.charAt(i+1)==' '){
         }
         else s1=s1+s.charAt(i);
      }
      System.out.println(s1);
   }
}
```

**26) WAJP to print repeated words in a string**

```
class RepeatedWord
{
        public static void main(String[] args)
        {
                String s="abc is a abc";
                String[] s1=s.split(" ");
                  for(int i=0;i<s1.length;i++){
                        int count=0;
```

```
                for(int j=i+1;j<s1.length;j++){
                        if(s1[i].equals(s1[j])){
                                count++;
                                s1[j]=" ";
                        }
                  }
            if(count>0)
                System.out.println("The Repeated Word is: "+s1[i]);
        }
}
}
```

**27) WAJP to Remove the duplicate Character from the second string**

```
import java.util.*;
class DuplicateCharFromSecondString
{
        public static void main(String[] args)
        {
                String s1="Helo";
                String s2="Fellow";
                s1=s1.toLowerCase();
                s2=s2.toLowerCase();

                char[] ch1=s1.toCharArray();
                char [] ch2=s2.toCharArray();
                for(int i=0;i<s1.length();i++){
                        int count=0;
                       for(int j=0;j<s2.length();j++){
```

```
if(ch1[i]==ch2[j]){
            ch2[j]=' ';
            break;
                        }
                    }
            }
            System.out.println(Arrays.toString(ch2));
            for(int i=0;i<ch2.length;i++){
                    if(ch2[i]!=' ')
                            System.out.println(ch2[i]);
  }
          }
                }
```