

# TOP SDET JAVA PROGRAMS FOR YOUR NEXT INTERVIEW

## 1.) Java program to Find Odd or Even number

```
import java.util.Scanner;

public class OddEven {
    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter any number: ");
        int number = scanner.nextInt();

        if (number % 2 == 0) {
            System.out.println(number + " is even.");
        } else {
            System.out.println(number + " is odd.");
        }
    }
}
```

## 2.) Java program to find Prime number

```
import java.util.Scanner;

public class PrimeNumber {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int number = scanner.nextInt();
        if (isPrime(number)) {
            System.out.println(number + " is a prime number.");
        } else {
            System.out.println(number + " is not a prime number.");
        }
    }

    public static boolean isPrime(int num) {
        for (int i = 2; i <= num / 2; i++) {
            //try each number by using %
            if (num % i == 0) {
                return false;
            }
        }
        return true;
    }
}
```

### 3.) Java program to find **Fibonacci** series upto a given number range

```
import java.util.Scanner;

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

        System.out.println("enter number of terms");
        int number = 6;
        int first = 0, second = 1, next;
        System.out.println("Fibonacci series is ");
        for (int i = 0; i <= number; i++)
        {
            System.out.println(first + " ");
            next = second + first;
            first = second;
            second = next;
        }
    }
}
```

Output: 0 1 1 2 3 5 8

### 4.) Java program to swap two numbers without using third variable

```
import java.util.Scanner;

public class SwapNumbers {
    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the first number: ");
        int a = 5;
        System.out.print("Enter the second number: ");
        int b = 10;
        System.out.println("Before swapping: a = " + a + ", b = " + b);
        a = a + b;
        b = a - b;
        a = a - b;
        System.out.println("After swapping: a = " + a + ", b = " + b);
    }
}
```

Output: After Swapping: a = 10 , b = 5

**PDF version of this post is available in  
our telegram channel 🐞 link in bio 🔥**

## 5.) Java program to Find **Factorial** on given Number

```
import java.util.Scanner;

public class FactorialNumber {

    public static void main(String[] args) {
        int factorial =1;
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter any number ");
        int number = 5;

        for (int i = 1; i <= number; i++){
            factorial = factorial * i;
        }
        System.out.println("Factorial number is :"+factorial);
    }
}
```

Input: 5!

Output: 5! = 5\*4\*3\*2\*1 = 120

## 6.) Java program to Reverse Number

```
import java.util.Scanner;

public class ReverseNumber {

    public static void main(String[] args) {
        int no, rev=0,r,a;
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter any number : ");
        no = scanner.nextInt();
        a = no;
        while(no>0)
        {
            r = no%10;
            rev = rev*10+r;
            no=no/10;
        }
        System.out.println("Reverse : " +rev);
    }
}
```

Input: 15786

Output: 68751

## 7.) Java program to find **Armstrong Number**

```
import java.util.Scanner;

public class ArmstrongNumber {
    public static void main(String[] args) {

        int arm=0, a,b,c,d,no;
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter any number : ");
        no = scanner.nextInt();
        d = no;
        while(no>0)
        {
            a = no%10; no =
            no/10;      arm
            =arm+a*a*a;
        }
        if(arm==d){
            System.out.println("Armstrong number");
        }
        else{
            System.out.println("Not Armstrong number");
        }
    }
}
```

## 8.) Java program to find **number of digits** in given number

```
import java.util.Scanner;

public class NumberOfDigits {
    public static void main(String[] args) {

        int no = 0, a = 0;
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter any number : ");
        no = scanner.nextInt();
        if(no<0)
        {
            no = no * -1;
        }
        else if (no==0) {
            no=1;
        }
        while(no>0)
        {
            no=no/10;
            a++;}
        System.out.println("Number of digits in given number is ." +a); }
```



## 9.) Java program to find **Palindrome number**

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int number = scanner.nextInt();

        if (isPalindrome(number)) {
            System.out.println(number + " is a palindrome.");
        } else {
            System.out.println(number + " is not a palindrome.");
        }
    }

    public static boolean isPalindrome(int num) {
        int originalNumber = num;
        int reversedNumber = 0;

        while (num != 0) {
            int digit = num % 10;
            reversedNumber = reversedNumber * 10 + digit;
            num = num/10;
        }

        return originalNumber == reversedNumber;
    }
}
```

Enter a number: 1001

1001 is a palindrome.

## 10.) Java program to calculate the sum of digits of a number

```
public class Main {  
    public static void main(String[] args) {  
        int number = 12345;  
  
        int sumOfDigits = calculateSumOfDigits(number);  
  
        System.out.println("Sum of digits of " + number + " is: " +  
sumOfDigits);  
    }  
  
    public static int calculateSumOfDigits(int number) {  
        int sum = 0;  
        while (number > 0) {  
            int digit = number % 10; // Extract the last digit  
            sum = sum + digit; // Add the digit to sum  
            number = number / 10; // Remove the last digit from number  
        }  
        return sum;  
    }  
}
```

Output:

Sum of digits of 12345 is: 15

**PDF version of this post is available in  
our telegram channel 🐉 link in bio 🔥**

# Strings

## 1.) Java program to reverse a string

```
import java.util.Scanner;
public class Test {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();
        char ch;
        String nstr = "";
        for (int i = 0; i < input.length(); i++) {
            ch = input.charAt(i);
            nstr = ch + nstr;
        }
        System.out.println("Reversed String is : " + nstr);
    }
}
```

## 2.) Java program to reverse **each word of a given string**

```
public static void main(String[] args) {
    reverseEachWordOfString("Java is good programming langauges");
}

static void reverseEachWordOfString(String inputString)
{
    String[] words = inputString.split(" ");

    String reverseString = "";
    for (int i = 0; i < words.length; i++) {
        String word = words[i];
        String nstr = "";
        char ch;
        for (int j = 0; j < word.length(); j++) {
            ch = word.charAt(j);
            nstr = ch + nstr;
        }
        reverseString = reverseString + nstr + " ";
    }

    System.out.println(inputString);
    System.out.println(reverseString);
}
```

Input: Java is good programming langauges

Output: avaJ si doog gnimmargorp seguagnal

### 3.) Java program to find **duplicate characters in a string**

```
import java.util.HashMap;
import java.util.Set;

public class Main {

    public static void main(String[] args) {
        duplicateCharacterCount("Learn Java Programming");
    }

    static void duplicateCharacterCount(String inputString) {

        HashMap<Character, Integer> charCountMap = new HashMap<>();
        char[] strArray = inputString.toCharArray();
        for (char c : strArray) {
            if (charCountMap.containsKey(c)) {
                charCountMap.put(c, charCountMap.get(c) + 1);
            } else {
                charCountMap.put(c, 1);
            }
        }

        Set<Character> charsInString = charCountMap.keySet();
        System.out.println("Duplicate Characters in : " + inputString);
        for (Character ch : charsInString) {
            if (charCountMap.get(ch) > 1) {
                System.out.println(ch + " : " + charCountMap.get(ch));
            }
        }
    }
}
```

Duplicate Characters in : Learn Java Programming a : 4

g : 2 m : 2 n : 2 r : 3



## 4.) Java program to **count Occurrences of Each Character** in String

```
import java.util.HashMap; public class Main {

    public static void main(String[] args) {
        CharacterCount("Test Automation Java Automation");
    }

    static void CharacterCount(String inputString) {
        HashMap<String,Integer> charCountMap = new HashMap<>();
        for(String s : inputString.split(" "))
        {
            if(charCountMap.containsKey(s))
            {}
            else charCountMap.put(s,charCountMap.get(s)+1);
            {}

            charCountMap.put(s,1);

        }
        System.out.println("Count of Characters in a given string : " +
        charCountMap);
    }
}
```

Count of Characters in a given string : {Java=1, Automation=2, Test=1}

## 5.) Java program to **count the number of words in a string**

```
public class Main {
    public static void main(String[] args) {
        System.out.println("Enter the String");
        Scanner sc = new Scanner(System.in);
        String s = sc.nextLine();
        int count = 1;
        for (int i = 0; i < s.length() - 1; i++) {

            if ((s.charAt(i) == ' ') && (s.charAt(i + 1) != ' ')) {
                count++;
            }
        }
        System.out.println("Number of words in a string: " +count);
    }
}
```

Enter the String: Welcome to Java World  
Number of words in a string: 4

## 6.) Java program to find all permutations of a given string

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        String str = "abc";
        permute(str, "");
    }

    static void permute(String str, String prefix) {
        if (str.length() == 0) {
            System.out.println(prefix);
        } else {
            for (int i = 0; i < str.length(); i++) {
                String rem = str.substring(0,i) + str.substring(i+1);
                permute(rem,prefix + str.charAt(i));
            }
        }
    }
}
```

abc

acb

bac

bca

cab

cba

## 7.) Java program to find if a string is Palindrome

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        String str = "madam";
        System.out.println(isPalindrome(str));
    }

    static boolean isPalindrome(String str) {
        int start = 0;
        int end = str.length() - 1;

        while (start < end) {
            if (str.charAt(start) != str.charAt(end)) {
                return false;
            }
            start++;
            end--;
        }
        return true;
    }
}
```

**PDF version of this post is available in  
our telegram channel 💪 link in bio 🔥**

## 8.) Java program to **determine if Two Strings are Anagrams**

```
public class Main {  
    public static void main(String[] args) {  
        String str1 = "listen";  
        String str2 = "silent";  
        System.out.println(areAnagrams(str1,str2));  
    }  
  
    static boolean areAnagrams(String str1, String str2) {  
        if(str1.length() != str2.length())  
        {  
            return false;  
        }  
        int[] charCount = new int[256];  
        for( int i = 0; i < str1.length(); i++)  
        {  
            charCount[str1.charAt(i)]++;  
            charCount[str2.charAt(i)]--;  
        }  
        for ( int count : charCount)  
        {  
            if ( count !=0 )  
            {  
                return false;  
            }  
        }  
        return true;  
    }  
}
```



## 9.) Java program to Count Vowels and Consonants in a given string

```
public class Main {  
    public static void main(String[] args) {  
        String str = "Hello World";  
        VowelConsonantCount(str);  
    }  
  
    static void VowelConsonantCount(String str) {  
        int vowels = 0, consonants = 0;  
        str = str.toLowerCase();  
        for (char c : str.toCharArray()) {  
            if (c >= 'a' && c <= 'z') {  
                if (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u')  
{  
                    vowels++;  
                } else {  
                    consonants++;  
                }  
            }  
        }  
        System.out.println("Vowels : " + vowels);  
        System.out.println("Consonants : " + consonants);  
    }  
}
```

Vowels : 3

Consonants : 7

**PDF version of this post is available in  
our telegram channel 🐸 link in bio 🔥**

## 10.) Java program to print unqiue characters

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();

        System.out.println("Unique characters in \"" + input + "\"");
        printUniqueCharacters(input);
    }

    public static void printUniqueCharacters(String str) {
        // Assume ASCII characters (0-127), use boolean array to track
        // character occurrences
        boolean[] unique = new boolean[128];
        for (int i = 0; i < str.length(); i++) {
            char ch = str.charAt(i);
            if (!unique[ch]) {
                unique[ch] = true;
                System.out.print(ch + " ");
            }
        }
    }
}
```

Enter a string: Java Automation

Unique characters in "Java Automation":

J a v A u t o m i n

## 11.) Java program to print even indexed characters

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();

        System.out.println("Even indexed characters in \"" + input + "\"");
        printEvenIndexedCharacters(input);
    }

    public static void printEvenIndexedCharacters(String str) {
        for (int i = 0; i < str.length(); i++) {
            if (i % 2 == 0) {
                System.out.print(str.charAt(i));
            }
        }
    }
}
```

Enter a string: Automation

Even indexed characters in "Automation":

Atmto

## 12.) Java program to **remove space from a given string**

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string with spaces: ");
        String input = scanner.nextLine();

        String stringWithoutSpaces = removeSpaces(input);
        System.out.println("String without spaces: " +
stringWithoutSpaces);
    }
    public static String removeSpaces(String str) {
        StringBuilder result = new StringBuilder();
        for (int i = 0; i < str.length(); i++) {
            if (str.charAt(i) != ' ') {
                result.append(str.charAt(i));
            }
        }
        return result.toString();
    }
}
```

Enter a string with spaces: Welcome to Java World  
String without spaces: **WelcometoJavaWorld**



## 13.) Java program to print each letter twice from a given string

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();

        String doubledString = doubleCharacters(input);
        System.out.println("Doubled characters: " + doubledString);
    }

    public static String doubleCharacters(String str) {

        StringBuilder doubled = new StringBuilder();
        for (int i = 0; i < str.length(); i++) {
            char ch = str.charAt(i);
            doubled.append(ch).append(ch); // Append each character
        }
        return doubled.toString();
    }
}
```

Enter a string: hello

Doubled characters: hheelllloo

**PDF version of this post is available in  
our telegram channel  link in bio **

## 14.) Java program to swap two string without using 3rd variable

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter first string: ");
        String str1 = scanner.nextLine();
        System.out.print("Enter second string: ");
        String str2 = scanner.nextLine();

        System.out.println("Before swapping: str1 = " + str1 + ",
str2 = " + str2);

        // Swapping without using a third variable
        str1 = str1 + str2; // Concatenate str1 and str2 and
store in str1
        str2 = str1.substring(0, str1.length() - str2.length());
// Extract the initial part (original str1) from the concatenated
string
        str1 = str1.substring(str2.length()); // Extract the
remaining part (original str2) from the concatenated string

        System.out.println("After swapping: str1 = " + str1 + ",
str2 = " + str2);
    }
}
```

Enter first string: Hello

Enter second string: World

Before swapping: str1 = Hello, str2 = World

After swapping: str1 = World, str2 = Hello

## 15.) Java program to gives Output: a2b2c3d2 for the Input String Str = "aabbccdd"

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

```
public class Main {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        System.out.print("Enter a string: ");  
        String input = scanner.nextLine();  
  
        String output = getCharacterCount(input);  
        System.out.println("Output: " + output);  
    }
```

```
    public static String getCharacterCount(String str) {  
        StringBuilder result = new StringBuilder();  
        int count = 1;  
  
        for (int i = 0; i < str.length(); i++) {  
            // If the next character is the same, increase the count  
            if (i + 1 < str.length() && str.charAt(i) == str.charAt(i  
+ 1)) {  
                count++;  
            } else {  
                // Append the character and its count to the result  
                result.append(str.charAt(i)).append(count);  
                count = 1; // Reset the count  
            }  
        }  
  
        return result.toString();  
    }  
}
```

Enter a string: aabbccdd

Output: a2b2c3d2



## 16.) Java program to gives two Output:

“abcde”, “ABCDE” for the Input String Str = “aBACbcEDed”

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

```
public class Main {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        System.out.print("Enter a string: ");  
        String input = scanner.nextLine();  
        System.out.println("Original String is: "+ input);  
        separateCharacters(input);  
    }  
  
    public static void separateCharacters(String input)  
    {  
        StringBuilder lowerCase = new StringBuilder();  
        StringBuilder upperCase = new StringBuilder();  
        for(char ch : input.toCharArray())  
        {  
            if(Character.isLowerCase(ch))  
            {  
                lowerCase.append(ch);  
            }  
            else  
            {  
                upperCase.append(ch);  
            }  
        }  
        System.out.println("Output in lowercase: "+lowerCase);  
        System.out.println("Output in uppercase "+upperCase);  
    }  
}
```

Enter a string: aBACbcEDed

Output in lowercase: abced

Output in uppercase: ABCED

**PDF version of this post is available in  
our telegram channel 🐦 link in bio 🔥**





**@TECHTALKS\_WITH\_AJAY**