# String Examples

**Example 1: Java String vs new String**

class JavaExample

{

public static void main(String args[])

{

//creating string using string literal

String s1 = "BeginnersBook";

String s2 = "BeginnersBook";

//creating strings using new keyword

String s3 = new String("BeginnersBook");

String s4 = new String("BeginnersBook");

if(s1 == s2){

System.out.println("String s1 and s2 are equal");

}else{

System.out.println("String s1 and s2 are NOT equal");

}

if(s3 == s4){

System.out.println("String s3 and s4 are equal");

}else{

System.out.println("String s3 and s4 are NOT equal");

}

}

}

**Example 2: A Simple Java String Example**

public class JavaExample{

public static void main(String args[]){

String str = "Beginnersbook";

//declaring a char array

char arrCh[]={'h','e','l','l','o'};

//converting char array arrCh[] to string str2

String str2 = new String(arrCh);

//creating another java string str3 by using new keyword

String str3 = new String("Java String Example");

//Displaying all the three strings

System.out.println(str);

System.out.println(str2);

System.out.println(str3);

}

}

**Example 3: Displaying first and last character of a String**

public class JavaExample {

public static void main(String[] args) {

String str = "Welcome to BeginnersBook.com";

//finding length of the string using length() method.

int len = str.length();

// First character of the string

System.out.println("First character: "+ str.charAt(0));

// Last character

System.out.println("Last character: "+ str.charAt(len-1));

}

}

**Example 4: Comparing the string vs new string using equals()**

public class JavaExample {

public static void main(String[] args) {

String str = "Hello"; //creating using literal

String str2 = new String("Hello"); //using new keyword

if(str.equals(str2)){

System.out.println("Strings str and str2 are equal");

}else{

System.out.println("Strings str and str2 are NOT equal");

}

}

}

**Example 5: String concatenation**

public class JavaExample {

public static void main(String[] args) {

String str = "Welcome";

String str2 = "Home";

System.out.println(str.concat(" ").concat(str2));

}

}

**Example: If-else Voting Age Example**

int myAge = 25;

int votingAge = 18;

if (myAge >= votingAge) {

System.out.println("Old enough to vote!");

} else {

System.out.println("Not old enough to vote.");

}

**Example: Sorting String Array**

import java.util.Arrays;

public class JavaExample {

public static void main(String a[]){

String[] names = new String[]{"Chaitanya", "Steve", "Rob", "Ajeet"};

//print array before sorting

System.out.println("Array before sorting: ");

for (String str: names)

{

System.out.print(str+ " ");

}

//sorting array

Arrays.sort(names);

//new line

System.out.println();

//print array after sorting

System.out.println("Array after sorting: ");

for (String str: names)

{

System.out.print(str+ " ");

}

}

}

**Example: Search an element in a String array**

public class JavaExample {

public static void main(String a[]){

String[] names = new String[]{"Chaitanya", "Steve", "Rob", "Ajeet"};

//this will represent the index of search element when it is found

int index=0;

//This will set to true, if element is found in array, else it

//will remain false.

boolean foundFlag = false;

//This is the search element, we are searching for this element in array

String searchItem ="Rob";

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

if(searchItem.equals(names[i])) {

//if element found, get index, set flag to true and break the loop

index = i;

foundFlag = true;

break;

}

}

if(foundFlag)

System.out.println("String "+searchItem +" is found at index: "+index);

else

System.out.println("String "+searchItem +" is not found");

}

}

**Example: Program to check whether String is palindrome using recursion**

import java.util.Scanner;

class PalindromeCheck

{

//My Method to check

public static boolean isPal(String s)

{ // if length is 0 or 1 then String is palindrome

if(s.length() == 0 || s.length() == 1)

return true;

if(s.charAt(0) == s.charAt(s.length()-1))

/\* check for first and last char of String:

\* if they are same then do the same thing for a substring

\* with first and last char removed. and carry on this

\* until you string completes or condition fails

\* Function calling itself: Recursion

\*/

return isPal(s.substring(1, s.length()-1));

/\* If program control reaches to this statement it means

\* the String is not palindrome hence return false.

\*/

return false;

}

public static void main(String[]args)

{

//For capturing user input

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the String for check:");

String string = scanner.nextLine();

/\* If function returns true then the string is

\* palindrome else not

\*/

if(isPal(string))

System.out.println(string + " is a palindrome");

else

System.out.println(string + " is not a palindrome");

}

}

**Example: write programs to find out the factorial of a number using recursion.**

import java.util.Scanner;

class FactorialDemo{

public static void main(String args[]){

//Scanner object for capturing the user input

Scanner scanner = new Scanner(System.in);

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

//Stored the entered value in variable

int num = scanner.nextInt();

//Called the user defined function fact

int factorial = fact(num);

System.out.println("Factorial of entered number is: "+factorial);

}

static int fact(int n)

{

int output;

if(n==1){

return 1;

}

//Recursion: Function calling itself!!

output = fact(n-1)\* n;

return output;

}

}

**Example: Program to reverse a string**

import java.util.Scanner;

public class JavaExample {

public static void main(String[] args) {

String str;

System.out.println("Enter your username: ");

Scanner scanner = new Scanner(System.in);

str = scanner.nextLine();

scanner.close();

String reversed = reverseString(str);

System.out.println("The reversed string is: " + reversed);

}

public static String reverseString(String str)

{

if (str.isEmpty())

return str;

//Calling Function Recursively

return reverseString(str.substring(1)) + str.charAt(0);

}

}

**Example: Count number of vowels and cononants in a string**

public class JavaExample {

public static void main(String[] args) {

String str = "BeginnersBook";

int vcount = 0, ccount = 0;

//converting all the chars to lowercase

str = str.toLowerCase();

for(int i = 0; i < str.length(); i++) { char ch = str.charAt(i); if(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u') { vcount++; } else if((ch >= 'a'&& ch <= 'z')) {

ccount++;

}

}

System.out.println("Number of Vowels: " + vcount);

System.out.println("Number of Consonants: " + ccount);

}

}