**Strings,String Buffer and String Builder Examples**

**StringClass:**

String is basically an object that represents sequence of char values surrounded by double quotes:

**package** sample;

**public** **class** Stringmanipulationdemo

**public** **static** **void** main(String[] args) {

String s1 = "hello";

String s2 = "have a nice day";

String s3 = s1+s2.trim ();

String s4 = **new** String ("hello");

System.***out***.println("Size:"+s1.length());

System.***out***.println("Append:"+s3);

System.***out***.println("Concatenation:"+s1.concat(s2));

System.***out***.println("Uppercase:"+s2.toUpperCase());

System.***out***.println("Lowercase:"+s2.toLowerCase());

System.***out***.println("Starts with:"+s2.startsWith("have"));

System.***out***.println("Ends with:"+s2.endsWith("ay"));

System.***out***.println("Contains:"+s2.contains("nice"));

System.***out***.println("Index:"+s2.indexOf("a"));

System.***out***.println("Last index:"+s2.lastIndexOf("a"));

System.***out***.println("MidIndex:"+s2.indexOf("a",3));

System.***out***.println("Char at:"+s2.charAt(3));

**if**(s1.equals(s4))

System.***out***.println("equal");

**else**

System.***out***.println("not equal");

**if**(s1.equalsIgnoreCase(s4))

System.***out***.println("equal");

**else**

System.***out***.println("not equal");

**if**(s1==s4)

System.***out***.println("equal");

**else**

System.***out***.println("not equal");

System.***out***.println("Compare to:"+s1.compareTo(s4));

System.***out***.println("Replace:"+s2.replace("nice","good"));

String str[] = s2.split("nice");

**for**(String s:str)

System.***out***.println("Elem:"+s);

System.***out***.println("substring:"+s2.substring(1,4));

**char** ch[] = s2.toCharArray();

**for**(**char** c:ch)

System.***out***.println("char:"+c);

**byte** bt[] = s2.getBytes();

**for**(**byte** b:bt)

System.***out***.println("Byte:"+b);

Object ob="12 How are you";

String st = ob.toString();

System.***out***.println("obj to string:"+st.toUpperCase());

StringBuffer sb = **new** StringBuffer("Hello");

System.***out***.println("Size:"+sb.length());

System.***out***.println("Capacity:"+sb.capacity());

System.***out***.println("Append:"+sb.append("Have a nice day"));

System.***out***.println("Insert:"+sb.insert(5,"How are you"));

System.***out***.println("Delete:"+sb.delete(0,4));

System.***out***.println("Delcharat:"+sb.deleteCharAt(0));

System.***out***.println("Replace:"+sb.replace(0,4,"where"));

System.***out***.println("Reverse:"+sb.reverse());

}

}

**StringBuffer:**

**package** sample;

**public** **class** StringBufferdemo {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

StringBuffer sb = **new** StringBuffer("Welcome");

sb.append("String Buffer");

System.***out***.println(sb);

StringBuffer sb1 = **new** StringBuffer(sb);

sb1.reverse ();

System.***out***.println(sb1);

sb.delete(3, 7);

System.***out***.println(sb);

sb.insert(3,"come");

System.***out***.println(sb);

sb.replace(0, 6, "Example");

System.***out***.println(sb);

System.***out***.println(sb.capacity());

System.***out***.println(sb.charAt(0));

**char**[] ch = **new** **char**[10];

//ensure capacity

sb.getChars(0, 7, ch, 0);

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

System.***out***.println(ch[i]);

}

**int** pos = sb.indexOf("m");

System.***out***.println(pos);

**int** pos1 = sb.indexOf("e", 0);

System.***out***.println(pos1);

**int** pos2 = sb.lastIndexOf("e");

System.***out***.println(pos2);

**int** pos3 = sb.lastIndexOf("f",19);

System.***out***.println(pos3);

System.***out***.println(sb.length());

sb.setCharAt(20,'s');

System.***out***.println(sb);

sb.setLength(30);

System.***out***.println(sb.length());

System.***out***.println(sb.delete(0,5));

//substring

System.***out***.println(sb.substring(10));

System.***out***.println(sb.substring(12,20));

}

}

**StringBuilder:**

**package** sample;

**import** java.lang.\*;

**public** **class** Stringbuilderdemo {

**public** **static** **void** main(String[] args) {

StringBuilder str = **new** StringBuilder("Welcome");

System.***out***.println(str);

str.append(" to StringBuilder");

System.***out***.println(str);

//append 67(c)

str.appendCodePoint(67);

System.***out***.println(str);

System.***out***.println(str.capacity());

**char** ch = str.charAt(1);

System.***out***.println("Character at position"+ch);

**int** uc = str.codePointAt(0);

System.***out***.println("Unicode value at char 1st:"+uc);

**int** uc1 = str.codePointBefore(1);

System.***out***.println("Unicode before char 1st"+uc1);

**int** uc2 = str.codePointCount(1, 5);

System.***out***.println("Unicode between 1 and 5"+uc2);

StringBuilder str1 = **new** StringBuilder(str);

System.***out***.println("Before Delete String is:"+str1);

str1 = str.delete(0,9);

System.***out***.println("After Delete the String is:"+str1);

System.***out***.println("Before Ensure Capacity"+str.capacity());

str.ensureCapacity(18);

System.***out***.println("After Ensure Capacity"+str.capacity());

**char**[] array = **new** **char**[7];

// get char from index 0 to 7

// and store in array start index 0

str.getChars(0, 7, array, 0);

System.***out***.print("Char array contains : ");

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

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

}

**int** index = str.indexOf("Builder");

// print results

System.***out***.println("\n index of string 'Builder' = "

+ index);

System.***out***.println(str);

**int** li = str.lastIndexOf("i");

System.***out***.println("LastIndexOf Str is:"+li);

System.***out***.println(str.length());

// System.out.println();

System.***out***.println(str.replace(15, 16, "s"));

str.setCharAt(0, 'X');

System.***out***.println(str);

str.setLength(10);

System.***out***.println(str);

//str.subSequence(li, index);

System.***out***.println(str.substring(5));

//Before trimtoSize

System.***out***.println(str.capacity());

str.trimToSize();

//After applying TrimtoSize

System.***out***.println(str.toString());

System.***out***.println(str.capacity());

StringBuilder str2 = str.reverse();

System.***out***.println(str2);

}

}

Example: String Buffer Objects used to Capitalize the first letter of a given name:

**public** **static** String capitalize(String name) {

**if** (Character.isLowerCase(name.charAt(0))) {

**if** (name.length() == 1 || Character.isLowerCase(name.charAt(1))) {

StringBuffer newname = **new** StringBuffer(name);

newname.[**setCharAt**](https://www.tabnine.com/code/java/methods/java.lang.StringBuffer/setCharAt)(0, Character.toUpperCase(name.charAt(0)));

**return** newname.toString();

}

}

**return** name;

}