

Code  *at* *Random*
(OPC) PVT. LTD.

Using Strings in Programming with JAVA



Taking String as Input from User

- To take input of string from the user, we use Scanner class only just like other variables.
- In Scanner class, we have two functions to take input of String from the user.
 - *next() function – to take input of string without space (i.e., a word)*
 - *nextLine() function – to take input of string with spaces i.e, a sentence or paragraph.*
- Examples:-
 - *String s = sc.next();*
 - *String str = sc.nextLine();*

Accessing the characters of the String

- To access the elements of the string i.e, the characters present in the string one by one, we have a specially designed function in String class in Java.
- This function name is **charAt()**.
- The charAt() method returns the character at the specified index in a string. The index of the first character is 0, the second character is 1, and so on.
- Prototype - public char **charAt**(int index)
- Example:-

```
String myStr = "Hello";  
char result = myStr.charAt(0);  
System.out.println(result); // output: H
```

Printing the String Object

- In Arrays, we used square brackets to access the elements, and for loop to print the elements of the array.
- In Strings, we don't use square brackets or for loop to access and print elements as it is a single object.
- So just like variables , we use print() or println() function to print the String object.

- Example:-

```
String myStr = "Hello";
```

```
System.out.println(myStr); // output: Hello
```

String Concatenation

- Concatenation is the process of combining two strings together.
- We can do concatenation in JAVA by two methods.
 - *By using + operator*
 - *Using **concat()** function*

- Examples:-

String str1 = "Code at ";

String str2 = "Random"

System.out.println(str1+" "+str2); // using +operator

String str3 = str1.concat(str2);

System.out.println(str3); // output: Code at Random

Adding Numbers and Strings

- Java uses the + operator for both addition and concatenation.
- Numbers are added but Strings are concatenated.
- If you add two numbers, the result will be a number: `int z = x+y; // x=10,y= 20`
- If you add two strings, the result will be a string concatenation:
- Examples:-

String x = "10"; String y = "20";

String z = x + y; // z will be 1020 (a String)

- If you add a number and a string, the result will be a string concatenation:

String x= "10"; int y= 20;

String z = x+y // z will be 1020(a string)