

# L10

## Strings

For Discord email - [support@learnyard.com](mailto:support@learnyard.com)

## What are Strings ?

Array →

0	1	2	3	4
10	30	40	20	10

String →

"a b d e f"

0 1 2 3 4

} }

"a 9 8 4"

- - - -

'4' '8'

Input of Strings  
Input a word  
Input a sentence  
Input a character

String s = in.next(); → single word

s = in.nextLine(); → sentence

in.next().charAt(0);  
└→ word      first letter

## Different functions of String

`charAt(index)` → character <sup>1<sup>st</sup></sup> <sub>index</sub>

String s = "abc";

↓ ↓ ↓

0 1 2

s.charAt(1)

'b'

`length()` → 3      s.length()

## Functions of String Continued

String s = "Saksham";

The diagram illustrates the indexing of the string "Saksham". Arrows point from each character to its corresponding index: 'S' to 0, 'a' to 1, 'k' to 2, 's' to 3, 'h' to 4, and 'a' to 5. An additional arrow points from the entire string to the variable 's'.

S. Substring (1, 4) → aks

String a = "Virat";

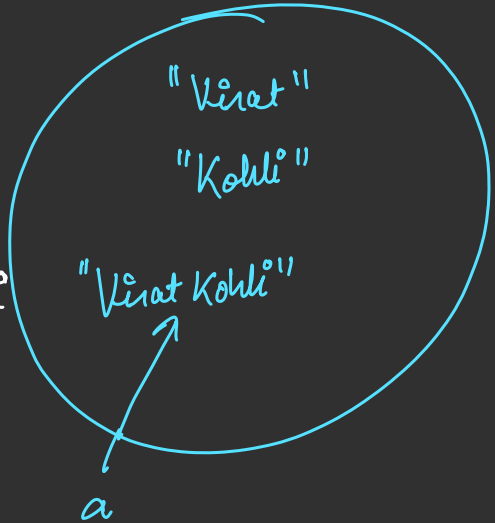
String b = "Kohli";

String c = a + b;

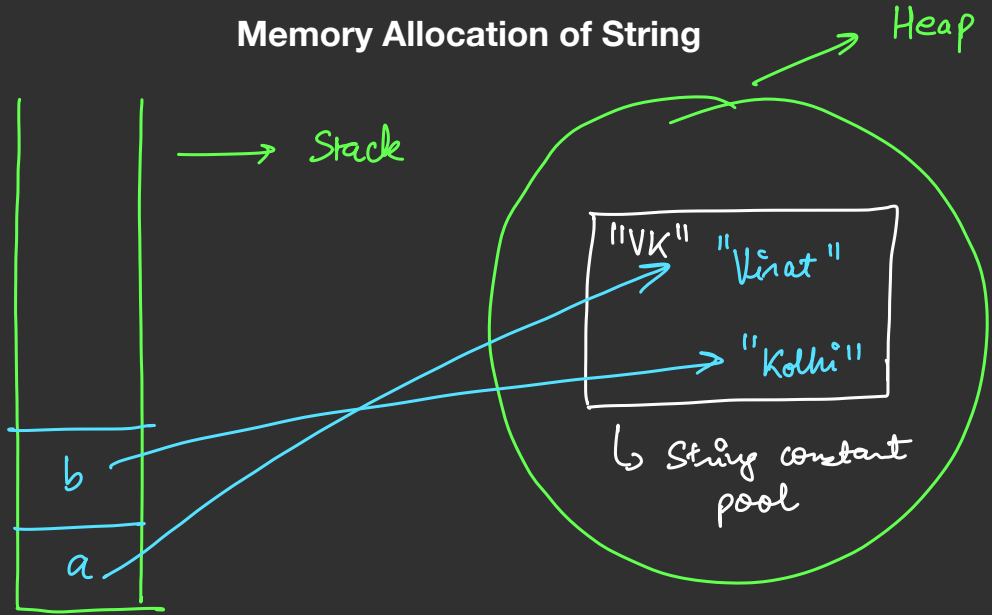
└─> ViratKohli

a. concat(b);

a → Virat Kohli



# Memory Allocation of String



## Compare 2 strings

String a = "abc d";

String b = "az";

compareTo

a.compareTo(b)

"aa" → a

"aa" → b

↙  
'b' - 'z' → -24

a.compareTo(b) → 0



## Integer to string and String to Integer

```
int a = 12;
```

```
String b = Integer.toString(a);
```

```
int c = Integer.parseInt(b);
```

## StringBuilder in JAVA

↳ mutable

```
StringBuilder s = new StringBuilder("abc");
```

```
s.append("xyz");
```

s → abcxyz

charAt(i)

s.length → 6

s.toString()

Question : Find whether string is Palindrome or not

$s = \text{"abcba"}$   $\longrightarrow$  true

$i = 0, j = s.length() - 1$

$i > j$

a b c c b a  
↑            ↑  
 $i$              $j$

$i++$   
 $j--$

false

$s.charAt(i) == s.charAt(j)$

## Reverse a String

`s = "fedcba"` → StringBuilder

↑   ↑  
i   j

interchange ↷  
`s[i], s[j]`

`setCharAt(index, ch)`

# Practice and Homework Questions

Homework questions -

**Write a program to find length of a string.**

**Write a program to copy one string to another string.**

**Write a program to concatenate two strings.**

**Write a program to compare two strings.**

**Write a program to find total number of alphabets, digits or special character in a string.**

**Write a program to count total number of vowels and consonants in a string.**

**Write a program to count total number of words in a string.**

*Thank You!*

Please practice more questions and examples as above !!