

- String
- StringBuffer ✓
- StringBuilder ✓

String s = "Hello"; → String Pool
String s = new String("Hello"); → Heap

```
class String
{
    // → Method
}
}
```

- 1) char charAt(int index)
- 2) int length()

```
String s = "HELLO";
for (int i = 0; i < s.length(); i++)
{
    s.o.p(s.charAt(i))
}
```

s

↓

s = L I M I N D T R E E

↑

0 1 2 3 4 5 6

CD [] [H] [I] [M] [D] [E] [E]

- 3) void getChars(sourceStart, sourceEnd, target, targetStart)

```
char[] c = new char[100];
s.getChars(3, 6, c, 2);
```

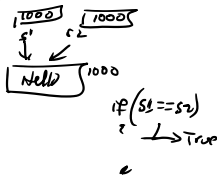
- 4) byte[] getBytes()

```
5) char[] toCharArray() String = "AB CD"
byte[] > [65] [66] [67] [68]
```

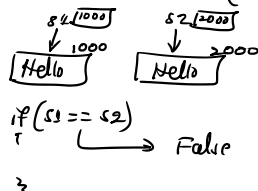
```
String s = "AB CD";
char[] c = s.toCharArray()
c [A] [B] [ ] [C] [D]
```

6)

s1 = "Hello"
s2 = "Hello"



```
String s1 = new String("Hello");
String s2 = new String("Hello");
```



- 6) boolean equals(String)
- 7) boolean equalsIgnoreCase(String)

```
if (s1.equals(s2))
    True
```

```

    s1      s2
    ↓       ↓
    "Hello" "hello"
    if (s1.equalsIgnoreCase(s2))
    {
        True
    }

```

- 8) boolean startsWith(String)
- 9) boolean endsWith(String)
- 10) int compareTo(String)

```
String s = "L I M I N D T R E E"
if (s.startsWith("L I"))
    True
```

```
int count = 0;
char ch;
s = scan.nextLine();
for (int i = 0; i < s.length(); i++)
{
    ch = s.charAt(i);
    if (ch == 'A' || ch == 'a' || ch == 'E' || ch == 'e' || ch == 'I' || ch == 'i' || ch == 'O' || ch == 'o' || ch == 'U' || ch == 'u')
    {
        count++;
    }
}
s.o.p("No of VOWELS: " + count);
```

- 8) `isEmpty()` (String)
- 9) `endsWith()` (String)
- 10) `compareTo()` (String)
 - ve $\rightarrow s_1 < s_2$
 - +ve $\rightarrow s_1 > s_2$
 - 0 $\rightarrow s_1 == s_2$

String s = "Lti Mind Tree"
 if (s.startsWith("Lti"))
 \rightarrow true
 \nearrow 65
 s1 = "A A D"
 s2 = "A C B C D E"
 \downarrow
 67
 -2

- 11) `indexOf()` (String)
 - 1 \rightarrow not found

s = "What ever I do I do it well";
 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

s.indexOf("ever")
 \rightarrow 5

s.indexOf(":")
 \rightarrow 10

- 12) `lastIndexOf()` (String)
- 13) `substring()` (int start)
- 14) `substring()` (int start, int end)

- 15) `replace()` (char origin, char replaceChar)
- 16) `trim()`

s = "Lti Mind Tree";

LtiMindTree

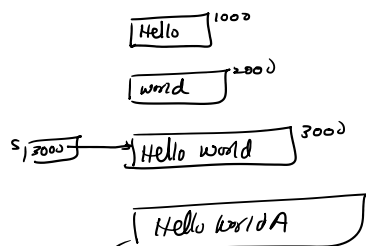
- 17) `toUpperCase()`
- 18) `toLowerCase()`

S = " L T I - M i n d T r e e "

String s = "Hello"

s = s + "world";

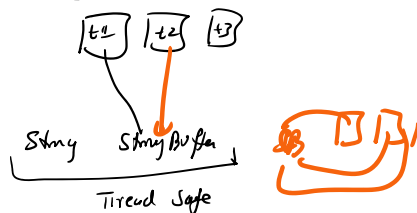
s = s + 'A'



StringBuffer
String Builder

StringBuffer sb = new StringBuffer("Hello");
 sb.append("world");

11
 Hello world



sb.reverse()

s = "Hello, world, from, Lti"
 \nearrow 0 \nearrow 13 \nearrow 23

String[] arr = s.split(",")

arr[0] = "Hello"

arr[1] = "world"

s="ABCDCO"
↑↑↑↑↑

→ java.util

```
HashSet<Character> set = new HashSet<>();
char ch;
for (int i=0; i<s.length(); i++)
{
    ch = s.charAt(i);
    set.add(ch);
}
s.o.p(set.size());
```



```
StringBuffer sb;
String st = sccn.nextLine();
String[] strArr = st.split(" ");
String result = "", revH = "";
int count = 0;
for (int i=0; i<strArr.length; i++)
{
    if (strArr[i].trim().length() > 0)
    {
        sb = new StringBuffer(strArr[i]);
        sb.reverse();
        result = result + strArr[i] + " ";
        revH = revH + sb + " ";
        count++;
    }
}
}
```

"What - @ - @ - Ever ... I ... do"

strArr[0] = "What"
→ 1 = "What" ✓
→ 2 = " " ✓
→ 3 = " " ✓
→ n = "Ever" ✓

What Ever

What Ever

revE

tahw

rev = "" + "tahw" + " "
= "tahw_" + "revE" + " "
= "tahw revE"

result = "" + "What" + " "
= "What" + "Ever" + " "
= "What Ever"

or
 st = "LtiMindtree" Mumbai
 0 1 2 3 4

1. Lt Mi d t r e Mumbai

2. i t M i n d e r t d i a b m b a i
 4

String s arr = s.split(" ")

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

if (arr[i].trim().length() > 0)

sb = sb + arr[i] + " "

sb = new StringBuffer(arr[i]);

sb = sb + sb.reverse() + " ";

}

}

n = scanner.nextInt();
 scanner.nextLine();
 String[] str = new String[n];

for (int i = 0; i < n; i++)
 str[i] = scanner.nextLine();

{

String startLetter = scanner.next();

int len = scanner.nextInt();

String searchStr = scanner.next();

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

S.o.p("Word:" + str[i]);

s = "HelloWorld"

ss = "ok"

s.indexOf(ss)

S.o.p("Starts with \'" + startLetter + "\' : " + str[i].startsWith(startLetter));

S.o.p("Length greater than " + len + " : " + str[i].length() > len);

S.o.p("Contains \'" + searchStr + "\' : " + str[i].indexOf(searchStr) > -1);

}

```
public static String check(String s)
```

```
{
```

```
    boolean valid = true;
```

```
    char ch = s.charAt(0);
```

```
    if (!Character.isUpperCase(ch))
```

```
        return "Invalid";
```

```
    ch = s.charAt(s.length() - 1);
```

```
    if (ch != '.' && ch != '?' && ch != '!')
```

```
        return "Invalid";
```

```
    if (!s.contains("o") && !s.contains("e") && !s.contains("i") && !s.contains("o") && !s.contains("u"))
```

```
        return "Invalid";
```

```
    boolean digit = false;
```

```
    for (int i = 0; i < s.length(); i++)
```

```
    {
        if (Character.isDigit(s.charAt(i)))
```

```
        {
            digit = true;
```

```
            break;
```

```
        }
```

```
    }
```

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