URBAN EDGE

Chapter 3 - Strings

A string is a sequence of characters
A string is instantiated as follows:

```
String name;
name = new String("Harry");
```

String is a class but can be used like a data type:

[Strings are immutable and cannot be changed]

```
String name = "Harry";
```

name → Reference
"Harry" → Object

Different ways to print in Java

We can use the following ways to print in Java:

1. System.out.print() → No newline at the end!
2. System.out.println() → Prints a new line at the end
3. System.out.printf()
4. System.out.format()

```
System.out.printf("%c", ch)
```

- %d for int
- %f for float
- %c for char
- %s for string

String Methods

String methods operate on Java Strings. They can be used to find length of the string, Convert to lowercase, etc.

Some of the commonly used String methods are :-

String name = "Harry"; (0 1 2 3 4)

1. name.length() → Returns length of String name. (5 in this case)

2. name.toLowerCase() → Returns a new String which has all the lowercase characters from the String name.

3. name.toUpperCase() → Returns a new String which has all the uppercase characters from the String name.

4. name.trim() → Returns a new String after removing all the leading and trailing spaces from the original String.

5. name.substring(int start) → Returns a substring from start to the end. substring(3) returns "ry" [Note that index starts from 0]

6. name.substring(int start, int end) → Returns a substring from start index to the end index. Start index is included and end is excluded

7. name.replace('r', 'p') → Returns a new String after replacing r with p. Happy is returned in this case.

URBAN EDGE

8. name.startsWith("Ha") → returns true if name starts with string "Ha". true in this case!
(String)

9. name.endsWith("ry") → returns true if name ends with string "ry". true in this case.
(String)

10. name.charAt(2) → returns character at a given index position. r in this case!
(int)

11. name.indexOf(s) → returns the index of the given string.
(Str) For ex: name.indexOf("ar") returns 1 which is the first occurence of ar in string "Harry", -1 otherwise

12. name.indexOf("s", 3) → returns the index of the given string starting from the index 3 (int). -1 is returned in this case!

13. name.lastIndexOf("r") → returns the last index of the given string. 3 in this case!

14. name.lastIndexOf("r", 2) → returns the last index of the given string before index 2.

15. name.equals("Harry") → returns true if the given string is equal to "Harry" false otherwise [Case Sensitive]

URBAN EDGE

16 name.equalsIgnoreCase("harry") → returns true if two strings are equal ignoring the case of characters.

Escape Sequence Characters
Sequence of characters after backslash '\'
= Escape sequence characters

Escape sequence characters consist of more than one characters but represents one character when used within the strings.

Examples: \n, \t, \', \\, etc.
newline Tab single quote backslash