

# Selenium WebDriver Training

String

# The Golden Circle

What

## What is String?

String is a non primitive datatype. It is an immutable class

Why

## Why is String needed?

To handle I/O data during Selenium automation

How

## How to implement String?

Two ways - Literal and Instance

# What is String?

- is a non primitive datatype
- class in java
- collection of characters

# How to declare String?[1 Out of 2]

## Using String Literal

- **Syntax** : `String name= "values";`

# How to declare String? [1 Out of 2]

## Using Array Literal

- **Syntax** : `String name= "values";`
- **Example**: `String name ="Testleaf";`

# How to declare String ? [2 Out of 2]

## Using Instantiation

- **Syntax 1:** `String name= new String("values");`

# How to declare String ? [2 Out of 2]

## Using Instantiation

- Syntax : `String name= new String("values");`
- `String s=new String("Testleaf");`

# String Literal Vs String Object

## String Literal

- Stores sequence of characters in a special memory known as “string constant pool” which is a part of heap memory

## String Object

- Stores sequence of characters in a heap memory

Literal and Object differs based on the memory storage



# String Methods

- `length()` - Count the number of characters
- `equals()` - Compare two String content
- `equalsIgnoreCase()` - Compare two String content ignoring case
- `contains()` - Checks that a character exist or not in a given string
- `toCharArray()` - Convert the String to character array
- `charAt(index)` - returns the character from particular index

# Let's write a sample code



## Reverse the String

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```
String input="TestLeaf";
```

Goal: To understand the String, loop

a) Convert the String to character array (use toCharArray)

b) Use for loop to iterate through each character (from end to go to the first)

c) Print the Characters continuously

\*Hint Use `system.out.print()`

# Classroom Exercise (Breakout)

## Find the count of given character in a String

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```
String input="TestLeaf";
```

```
//To get the count of e;
```

Goal: To understand the String, loop, if

- a) Create a class by name: FindCharCount (with main method)
  - initialize the count variable
  - count =0;
- b) Convert the String to character array (use toCharArray)
- c) Use for loop to iterate through each character in the array
- d) Compare with the input with the required character using if condition (==)
- e) if matches, keep adding the count. Finally, print the count.
- f) Run and Confirm that the correct character count is printed in console

# String Methods

- **split()** -split the given string using delimiter
- **replace()** -to replace a character in String with another character
- **replaceAll()** -to replace each character in String that matches with the given expression that needs replacement with another character.
- **substring()** -to retrieve sequence of character from the string based on index
- **toLowerCase()** - Convert each character of the String into lowercase
- **toUpperCase()** - Convert each character of the String into uppercase

# Summary

- String – is a class and stores collection of Character
- String Declaration -**Literal** & Instantiation
- String methods are used to manipulate the string data

# Classroom Exercise (Breakout)

## Reverse the String

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String input="Amazon development centre,Chennai";

Output = Chennai,centre development Amazon

Goal: To understand String , loop

a)Convert the string to lower case

b)split the sentence with white space and get the count of the words

c)Use for loop to iterate (from end to go to the first)

d)Print the reversed String

\*Hint Use `system.out.print()`

Before writing the code – follow the 3 step process:

- Understand the problem
- Solve the problem (Using Pseudocode)
- Write the code