**CSA0961-JAVA**

**PRACTICE- 4.4**

# Strings Practice Activities Lesson Objectives:

* Instantiate (create) a String
* Describe what happens when a String is modified
* Use the + and += operators for concatenating Strings
* Interpret escape sequences in String literals
* Recognize the difference between a String and a primitive char data type
* Test Strings with the compareTo() and equals() method
* Describe why the == operator does not always work when testing String equality
* Use String methods length(), substring(), indexOf(), and charAt()

**Try It/Solve It:**

1. **Write three different ways to declare and instantiate a String object called “myString” and containing “abc”.**

**Using a string literal:**

String myString = "abc";

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# Output:



**Using the new keyword with a string literal:**

String myString = new String("abc");

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# Output:



**Using a character array:**

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# Output:



1. **Given the three String objects below, what will each of the following return?**

# String s1 =“ABC”;

**String s2 = new String(“DEF”); String s3 = “AB” + “C”;**

# s1.compareTo(s2);

public class CompareStrings {

public static void main(String[] args) {

String s1 = "ABC";

String s2 = new String("DEF"); int result = s1.compareTo(s2);

System.out.println("s1.compareTo(s2): " + result);

}

}

# Code and output:

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* 1. **s2.equals(s3);**

public class CompareStrings {

public static void main(String[] args) { String s1 = "ABC";

String s2 = new String("DEF"); String s3 = "AB" + "C"; boolean result = s2.equals(s3);

System.out.println("s2.equals(s3): " + result);

// Output will be false because "DEF" is not equal to "ABC".

}

}

Code and output:

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**c. s3 == s1;**

public class CompareStrings {

public static void main(String[] args) { String s1 = "ABC";

String s2 = new String("DEF"); String s3 = "AB" + "C"; boolean result = s3 == s1;

System.out.println("s3 == s1: " + result);

}

}

# Code and output:

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**d. s2.compareTo(s3);**

public class CompareStrings {

public static void main(String[] args) {

String s1 = "ABC";

String s2 = new String("DEF"); String s3 = "AB" + "C";

int result = s2.compareTo(s3); System.out.println("s2.compareTo(s3): " + result);

}

}

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**e. s3.equals(s1);**

public class CompareStrings {

public static void main(String[] args) { String s1 = "ABC";

String s2 = new String("DEF"); String s3 = "AB" + "C"; boolean result = s3.equals(s1);

System.out.println("s3.equals(s1): " + result);

}

}

# Code and output:

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**3.Declare and instantiate two separate String objects, and then concatenate them together and assign them to a third arbitrary String object.**

public class Concatenate {

public static void main(String[] args) { String str1 = "Hello, ";

String str2 = "World!";

String str3 = str1 + str2;

System.out.println(str3);

}

}

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