

# CS6308 Java Programming

## Topic: String Handling

### ASSIGNMENT 7

#### Exercise 1.1: Practice string methods

Write a java program to perform string methods by considering the given string inputs

String s1="Welcome to Java";

String s2=s1;

String s3=new String("Welcome to Java");

String s4=s1.intern();

(1) s1 == s2	(13) s1.length()
(2) s2 == s3	(14) s1.substring(5)
(3) s1.equals(s2)	(15) s1.substring(5, 11)
(4) s2.equals(s3)	(16) s1.startsWith("Wel")
(5) s1.compareTo(s2)	(17) s1.endsWith("Java")
(6) s2.compareTo(s3)	(18) s1.toLowerCase()
(7) s1 == s4	(19) s1.toUpperCase()
(8) s1.charAt(0)	(20) " Welcome ".trim()
(9) s1.indexOf('j')	(21) s1.replace('o', 'T')
(10) s1.indexOf("to")	(22) s1.replaceAll("o", "T")
(11) s1.lastIndexOf('a')	(23) s1.replaceFirst("o", "T")
(12) s1.lastIndexOf("o", 15)	(24) s1.toCharArray()

#### Exercise 1.2: Write a program to show that String is immutable in java

#### Exercise 2: String reverse

Write a java program to read the string and displays the reverse of the string.

Hint: swap first character with last character until half of the string length

#### Exercise 3: Letter occurrence

Write a java program to count the number of occurrence of the each letter in the given string

#### Exercise 4: Count Words

Write a Java program to count the number of words in the given string

#### Exercise 5: Palindrome and anagram

Write a java program to check the given string is palindrome or not (Example: Race car)

Write a java program to check the given string is anagram or not (Example Iceman vs Cinema)

#### Exercise 6: Comparison of product version number

Write a java program that read a two string of the given format and compares the string

Example:

15.10.10 is greater than 14.20.50 as 15 >14

14.12.10 is greater than 14.10.55 as 12>10

14.10.15 is greter than 14.10.11 as 15>11

Hint: GivenString.split("\\.")

### Exercise 7: Email validity

Write a java program using String methods to compare the email is valid is invalid and returns the username and domain name

- i) Valid Username: numbers[0-7], alphabets[a-z][A-Z], underscore, dot, hypen and plus characters
- ii) Presence of @ symbol
- iii) Presence of domainname.com or .in or .edu

Hint use givenstring.split("@") to find specific user(case-insensitive: jc\_vp) and specific domain (case-insensitive: gmail.com) for example jc\_vp@gmail.com.

### Exercise 8: Dictionary

Write a java program to create a dictionary using 2D string array for any 10 programming languages. Write a method that return the definition for the input of PLname.

Java- pure object oriented programming language by James Gosling

C++ - Object oriented programming language by Stroustrup