CS23304 JAVA PROGRAMMING

Course Instructor: V P Jayachitra

WEEK 5

Instruction:

- **Use meaningful variable names**
- **Consistent indentation**
- **Proper error handling**
- **Proper comment to follow the question requirement**

Exercise 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();

- s1 == s2
- s1 == s3
- s1 == s4
- s2 == s3
- s2 == s4
- s3 == s4
- s1.equals(s2)
- s1.equals(s3)
- s1.equals(s4)
- s1.equalsIgnoreCase(s2)
- s1.compareTo(s2)
- s2.compareTo(s3)•

s1.equalsIgnoreCase(s2)

- s2.equals(s3)
- s1.compareTo(s2)
- s2.compareTo(s3)
- s1.equals(s2)
- s2 == s4

- s1.substring(3)
- s1.substring(1, 3)
- s1.startsWith("Wel")
- s1.endsWith("Java")
- s1.toLowerCase()
- s1.toUpperCase()
- “ Hi”.trim()
- s1.replace('o', 'O')
- s1.replaceAll("o", "O")
- s1.replaceFirst("o", "O")
- s1.split("O")
- s1.split("O", 4)
- s1.toCharArray()
- s1.codePointAt(0)
- s1.contains("or")

- Print System.identityHashCode(s1)
- Print System.identityHashCode(s2)
- Print System.identityHashCode(s3)
- Print System.identityHashCode(s4)

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 occurence

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. Hint: use split(“ “) method

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Excercise 5: Compression

Write a Java program that performs string compression using the counts of repeated characters.

Example string "aabccccccaaa" would become "a2b1c5a3".

If the "compressed" string would not become smaller than the original string, your method should return the original string.

Exercise 6: Anagram

Write a java program to check the given string is Anagram or not

Exercise 7: **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 greater than 14.10.11 as 15>11

Hint: GivenString.split("**\\.**")**.** Store each split part in an array and compare

Exercise 8: Email validity

Write a java program to compare the email is valid is invalid and retruns the username and domain name

i) Valid Username: numbers[0-9], alphabets[a-z][A-Z], underscore, hypen and plus characters . Total number of characters are 25.
ii) Presence of single @ symbol
iii) Presence of domain name .com, .in, .edu