

LAB 3

Topics: String, StringBuffer, StringBuilder, array of objects, this keyword, constructor overloading

1. Write a program that returns the number of times that the string “hi” appears anywhere in the given string.
2. Write a program which checks whether the input string is palindrome or not and then display an appropriate message [e.g. “Refer” is a palindrome string].
3. Write a program that takes your full name as input and displays the abbreviations of the first and middle names except the last name which is displayed as it is. For example, if your name is Robert Brett Roser, then the output should be R.B.Roser.
4. Write a method **String removeWhiteSpaces(String str)** method that removes all the white spaces from the string passed to the method and returns the modified string. Test the functionalities using the main() method of the Tester class.
5. Write a class Student with member variables int roll_no, String name and an array to store marks of 5 subjects. Demonstrate constructor overloading and use this keyword. Write a findAverage() method that returns double value. Write a TestStudent class containing main() method to do the following:
 - a) Store the details of one student by creating one object of Student class and display them.
 - b) Store the details of 3 students by creating an array of objects of Student class and display the details of the student who has the highest average amongst the three students.

Practice Problems:

- Write a Java program to find the second most frequent character in a given string.
E.g.

Input	Success
Output	c

- Write a program that prints the words of a sentence given as input in reverse order.
E.g.

Input	This is a java programming lab
Output	lab programming java a is This

- Write a Java program to find the longest palindrome substring within a string.
E.g.

Input	thequickbrownfoxxofnworquickthe
Output	The longest palindrome substring in the given string is: brownfoxxofnworb The length of the palindromic substring is: 16