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| *A close up of a logo  Description automatically generated* | *DEPARTMENT OF COMPUTER ENGINEERING* |

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| Semester | S.E. Semester III – Computer Engineering |
| Subject | Object Oriented Programming Using Java (Skill Based Lab) |
| Subject Professor In-charge | Prof. Indu Anoop |
| Laboratory | Online Lab |

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| Experiment | 6A | |
| Problem Statement | WAP in java to demonstrate string functions | |
| Resources / Apparatus Required | Hardware: Computer System | Software: jdk 1.8, Eclipse / Notepad++/IntelliJ IDEA |
| Details | The primitive data types are specified by the keywords int, double, etc. While these keywords start with a lowercase letter, the keyword String, which represents the string data type, starts with an uppercase letter. This is because of the fact that keyword String is the name of a predefined class. A Java string is an instantiated object of the String class. A String variable is simply a variable that stores a reference to an object of the class String. You declare a String variable in much the same way as you define a variable of one of the basic types. You can also three way to initialize it in the declaration.  Major difference between string function and string buffer   1. Once we create a string object we can’t perform any changes in the existing object. If we are trying to perform any changes with those changes a new object will be created. This non changeable nature is called immutability of the string object 2. Once we create a StringBuffer object we can perform any type of changes in the existing object. This changeable nature is called mutability of the StringBuffer object. | |
| Code | **public** **class** StringOperations {    **public** **static** **void** main(String[] args) {  String s1=**new** String("abc"); //use a string literal  System.***out***.println(s1);    //String concatenation with other datatypes  **int** age=15;  String s2="She is "+age+" years old";  System.***out***.println(s2);    //character extraction methods  System.***out***.println(s1.charAt(1)); //one character  String s3="This is a demo of getchars method";  **int** start=10;  **int** end=14;  **char** buf[]=**new** **char**[end-start];//char array size set  s3.getChars(start, end, buf, 0);  System.***out***.println(buf);    //String comparisons  String a1="Hello";  String a2="Hello";  String a3="Good Bye";  String a4="HELLO";    System.***out***.println("a1.equals(a2)-->"+a1.equals(a2));  System.***out***.println("a1.equals(a3)-->"+a1.equals(a3));  System.***out***.println("a1.equals(a4)-->"+a1.equals(a4));    System.***out***.println("a1.equalsIgnoreCase(a4)-->"+a1.equalsIgnoreCase(a4));    //Boolean return methods    System.***out***.println("a1.startsWith()-->"+a1.startsWith("He"));  System.***out***.println("a1.endsWith()-->"+a1.endsWith("lo"));    System.***out***.println("a1.compareTo()-->"+a1.compareTo("Hell"));    //Search    String b1="now we are currently learning about the methods of string class in java";    System.***out***.println("b1.indexOf()-->"+b1.indexOf("t")); ///first occurance of t in the text  System.***out***.println("b1.indexOf()-->"+b1.indexOf("the")); ///first occurance of the in the text  System.***out***.println("b1.lastIndexOf()-->"+b1.lastIndexOf("t")); ///first occurance of the in the text    String n1="My name is Trisha";  System.***out***.println("n1.substring(11, 15)-->"+n1.substring(11, 15));//static  //More dynamic  System.***out***.println("Search for Trisha in dynamic way-->"+n1.substring(n1.indexOf("Trisha"),n1.indexOf("Trisha")+"Trisha".length()));  System.***out***.println("Concat-->"+n1.concat("Shah"));  System.***out***.println("replaceAll-->"+n1.replaceAll("Trisha", "Shah"));    String n2=" My Name is Trisha ";  System.***out***.println("trim()-->"+n2.trim());    System.***out***.println("Join operator-->"+String.*join*(" ", "Alpha","Beta","Gamma"));    //Data conversion using valueOf()  **double** num=20;    System.***out***.println("Convert double to string output-->"+String.*valueOf*(num));  }  } | |
| Output |  | |
| Conclusion | Thus, we successfully executed a program to explore different String Functions. | |