StringADT

This project is to study the built in classes String, StringBuffer and StringTokenizer. We will going to explore all the important functions of these classes by creating our own ADT with defined operations allowed for that ADT, finally we will develop an console based Hangman Game.

Project Name: StringADT

Package used:

package 1: com.project1.interface – All base interfaces are defined here.

package 2: com.project1.hangman - all the classes related to hangman application are

defined here

package 3:com.project1.mystring – all the classes related to mystring class defined here

package4:com.project1.lexical – all the classes related to lexical class is defined here

package 1: com.project1.interface

Description of the interfaces:

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| **Interface name** | **Description** |
| StringBase | Interface for my string class |
| **Method name** | ***descrition*** |
| **public abstract void** showStructure(String str); | */\* showStructure method is used to print input String str in th below pattern 0 1 2 3 4 5  H e l l o  The characters in a String can be manipulated one at a time with the use of the charAt(int index) method.\*/* |
| **public boolean** lessThan(String leftstring, String rigthstring); | */\*  This method use the String class method compareTo to determine if the leftString is less  than the rightString.  \*/* |
| **public boolean** gtrThan(String leftstring, String rigthstring); | */\*  This method use the String class method compareTo to determine if the leftString is greater  than the rightString. \*/* |
| **public abstract** String findSubstring(String teststr1, **int** start, **int** count); | */\* This method uses substring and length and returns a substring of testStr1 starting at position start and extracting count characters if that many characters exist in the String testStr1.  \*/* |
| **void** firstLtrWord(String inputstring); | */\* this method a combination of length, charAt, substring, and indexOf can be used to finnd the first letter, the first word, and the last letter in a given sentence or phrase.  This method prints the following lines of information. String is: The string's length is: The first letter is: The last letter is: The first word is:  If the String is empty, this method prints String is: The string's length is: 0 The string is empty! No more data to print.  \*/* |
| **public int** strCharCount(String inputstring, **char** ch); | */\* This method uses the String method indexOf to return a count of the number of times the character ch occurs in the String inputString  \*/* |

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| **Interface name** | **Description** |
| StringTokenizerInterface | Interface for lexical class |
| **Method name** | ***descrition*** |
| **public abstract** String firstToken(String inputStr); | */\* this method will return the first token from the input stream by using the nextToken() of StringTokenizer  \*/* |
| **int** tokenCount(String inputStr); | */\* this method will return the total no of tokens present in inputString by using the countTokens() of StringTokenizer  \*/* |
| **void** showAllToken(String inputStr); | */\* this method will going to print all the available tokens in inputstring by using the hasMoreToken() method and nextToken() method of StringTokenizer  \*/* |

package 3:com.project1.mystring

Description of the class:

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| **class** | **Description** |
| MyString | Implements StringBase |
| **Method name** | ***descrition*** |
| Override all the methods of interface | Use the method from built in String class to implement all the method. |