**SIMATS SCHOOL OF ENGINEERING**

**DEPARTMENT OF INFORMATION SECURITY**

**CSA0983 – PROGRAMMING IN JAVA WITH DEADLOCKS**

**Assignment -4**

1. Write a java program

i. to compare two strings lexicographically, ignoring case differences.

ii. to check whether a given string ends with the contents of another string.

iii. to print current date and time in the specified format.

iv. to get the index of all the characters of the alphabet.

v. to replace each substring of a given string that matches the given regular expression with the given replacement. In the below string replace all the fox with cat.

vi. to get a substring of a given string between two specified positions.

vii. to trim any leading or trailing whitespace from a given string.

viii. to convert all the characters in a string to lowercase.

ix. to get the length of a given string.

x. to check whether two String objects contain the same data

Sample string: "The quick brown fox jumps over the lazy dog."

import java.time.LocalDateTime;

import java.time.format.DateTimeFormatter;

public class StringOperations {

public static void main(String[] args) {

String str1 = "Hello";

String str2 = "hello";

// Compare two strings lexicographically ignoring case differences

boolean areEqual = str1.equalsIgnoreCase(str2);

System.out.println("Are strings equal (ignoring case)? " + areEqual);

String str3 = "This is a sample string";

String suffix = "string";

// Check if a string ends with the contents of another string

boolean endsWithSuffix = str3.endsWith(suffix);

System.out.println("Does the string end with the suffix? " + endsWithSuffix);

// Print current date and time in the specified format

LocalDateTime currentDateTime = LocalDateTime.now();

DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd HH:mm:ss");

String formattedDateTime = currentDateTime.format(formatter);

System.out.println("Current date and time: " + formattedDateTime);

String str4 = "The quick brown fox jumps over the lazy dog";

// Get the index of all the characters of the alphabet

for (char ch = 'a'; ch <= 'z'; ch++) {

int index = str4.indexOf(ch);

if (index != -1) {

System.out.println(ch + ": " + index);

}

}

// Replace each substring that matches the given regular expression with the given replacement

String replacedString = str4.replaceAll("fox", "cat");

System.out.println("Replaced string: " + replacedString);

// Get a substring between two specified positions

int startPos = 10;

int endPos = 15;

String substring = str4.substring(startPos, endPos);

System.out.println("Substring: " + substring);

// Trim leading or trailing whitespace from a string

String str5 = " Trim this string ";

String trimmedString = str5.trim();

System.out.println("Trimmed string: " + trimmedString);

// Convert all characters to lowercase

String str6 = "Convert to Lowercase";

String lowercaseString = str6.toLowerCase();

System.out.println("Lowercase string: " + lowercaseString);

// Get the length of a string

int length = str4.length();

System.out.println("Length of the string: " + length);

// Check whether two string objects contain the same data

String str7 = "The quick brown fox jumps over the lazy dog";

boolean areSameData = str4.equals(str7);

System.out.println("Do the strings contain the same data? " + areSameData);

}

}