ГОУ ВПО – Донецкий Национальный Университет

Физико-Технический факультет

Лабораторная работа по дисциплине

«ОБЪЕКТНО-ОРИЕНТИРОВАННОЕ ПРОГРАММИРОВАНИЕ»

СТРОКИ

Подготовил студент

3-уск. курса, группы ИВТ-5

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**Цель**:  получить представление о работе с классами String, StringBuilder, StringBuffer.

**Файл** StrOpr.java

public class StrOpr {

public static void First(String str) {

//Б

System.out.print("Last symbol is: " + str.charAt(str.length()-1) + "\n");

//В

if(str.endsWith("!!!"))

System.out.print("String has \"!!!\" at end \n");

else System.out.print("There is no \"!!!\" at end \n");

//Г

if(str.startsWith("I like"))

System.out.print("String start with \"I like\"\n");

else System.out.print("There is no \"I like\" at beginning\n");

//Д

if(str.contains("Java"))

System.out.print("String contain \"Java\"\n");

else System.out.print("String doesn`t contain \"Java\"\n");

//Е

var JvaIndx = str.indexOf("Java");

System.out.print("position of \"Java\" is: " +JvaIndx+ "\n");

//Ж

System.out.print(str.replace('a','o')+ "\n");

//З

System.out.print(str.toUpperCase()+ "\n");

//И

System.out.print(str.toLowerCase()+ "\n");

//К

System.out.print(str.substring(JvaIndx,JvaIndx+4)+ "\n");

}

public static void Second(String path,String LookingWord) throws IOException {

String Line = null;

int counter = 0;

File file = new File(path);

BufferedReader br = new BufferedReader(new InputStreamReader(new FileInputStream(file)));

StringBuilder out = new StringBuilder();

while((Line = br.readLine())!= null)

{

if(Line.contains(LookingWord) && ++counter % 2 == 0) {

out.append(Line.replaceAll(LookingWord, "OOP

out.append("\n");

continue;

}

out.append(Line + "\n");

}

br.close();

path = out.toString();

System.out.print(path);

}

public static void Third(String str,String LookingWord) {

StringBuilder out = new StringBuilder();

while(str.contains(LookingWord)) {

var indx = str.indexOf(LookingWord);

str = str.substring(indx);

indx = str.indexOf(',');

if(indx == -1)

indx = str.indexOf('.');

out.append(str.substring(0, indx)+"\n");

str = str.substring(indx);

}

System.out.print(out);

}

public static void Fourth(String str) {

var WordList = SplitWords(str,' ');

String wordMinCharVar = (String) WordList.get(0);

int indexMinCharVar = 0;

int sizeMinCharVar = new HashSet<String> (Arrays.asList (WordList.get(0).split (""))).size();

for (int i = 1; i < WordList.size(); i++) {

Set<String> set = new HashSet<String> (Arrays.asList (WordList.get(i).split ("")));

if (set.size () < sizeMinCharVar) {

indexMinCharVar = i;

sizeMinCharVar = set.size ();

}

}

System.out.println (wordMinCharVar);

}

public static void Fifth(String str) {

var WordList = SplitWords(str,' ');

int wordsCount = 0;

for (String word : WordList) {

for (Character letter : word.toCharArray ()) {

if (((letter >= 'А') && (letter <= 'Я')) || ((letter >= 'а') && (letter <= 'я')) || Character.isDigit(letter)) {

wordsCount--;

break;

}

}

wordsCount++;

}

System.out.print(wordsCount + "\n");

}

public static void Sixth(String str) {

var WordList = SplitWords(str,' ');

for (String word : WordList) {

for (Character letter : word.toCharArray ()) {

if (((letter >= 'А') && (letter <= 'Я')) || ((letter >= 'а') && (letter <= 'я')))

break;

var temp = new StringBuilder(word).reverse();

if(word.equals(temp.toString()) && temp.length() >1) {

System.out.print(word);

return; }}}}

private static List<String> SplitWords(String str,char splitter){

List<String> list = new ArrayList<>();

while(str.length() != 0) {

var indx = str.indexOf(splitter);

if (indx == 0) {

str = str.substring(1);

continue;

}

if (indx == -1) {

list.add(str);

return list;

}

list.add(str.substring(0, indx));

str = str.substring(indx);

}

return list;

}

}