**ASSIGNMENT 10: STRING METHODS**

**1. Flush Characters**

**Write a program to read a string from the user and remove all the**

**alphabets and spaces from the String, and only store special characters**

**and digit in the output String. Print the output string.**

**public** **class** flush {

**public** **static** **void** main(String[] args) {

String s1="cogniz$#45An";

String s2=*getvalues*(s1);

System.***out***.println(s2);

}

**public** **static** String getvalues(String s1)

{

StringBuffer sb=**new** StringBuffer();

**for**(**int** i=0;i<s1.length();i++)

{

**char** a=s1.charAt(i);

**if**(!Character.*isAlphabetic*(a))

sb.append(a);

}

**return** sb.toString();

}

}

**Output:**

$#45

**2. Fetching Middle Characters from String**

**Write a program to read a string of even length and to fetch two middle**

**most characters from the input string and return it as string output.**

**Include a class UserMainCode with a static method getMiddleChars which**

**accepts a string of even length as input . The return type is a string**

**which should be the middle characters of the string.**

**Create a class Main which would get the input as a string and call the**

**static method getMiddleChars present in the UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** String getMiddleChar(String str)

{

StringBuffer sb=**new** StringBuffer();

**if**(str.length()%2==0)

{

sb.append(str.substring((str.length()/2)-1,(str.length()/2+1)));

}

**return** sb.toString();

}

**public** **static** **void** main(String[] args) {

System.***out***.println("Enter the String");

Scanner sc=**new** Scanner(System.***in***);

String str=sc.next();

str=*getMiddleChar*(str);

System.***out***.println(str);

}

}

**Output:**

Enter the String

Alan

la

**3.Negative String**

**Given a string input, write a program to replace every appearance of the**

**word "is" by "is not".**

**If the word "is" is immediately preceeded or followed by a letter no**

**change should be made to the string .**

**Include a class UserMainCode with a static method “negativeString” that**

**accepts a String arguement and returns a String.**

**Create a class Main which would get a String as input and call the static**

**method negativeString present in the UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** String negativeString(String msg)

{

StringBuffer buf=**new** StringBuffer();

String[] str=msg.split(" ");

**for**(String s:str)

{

**if**(s.equals("is"))

{

buf.append(" ").append("is not").append(" ");

}

**else**

{

buf.append(s).append(" ");

}

}

**return** buf.toString();

}

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String msg1;

System.***out***.println("Enter the String");

msg1=sc.nextLine();

UserMainCode n=**new** UserMainCode ();

System.***out***.println(n.*negativeString*(msg1));

}

}

**Output:**

Enter the String

Today is misty

Today is not misty

**4.Occurance Count**

**Write a program to read a string that contains a sentence and read a**

**word. Check the number of occurances of that word in the sentence.**

**Include a class UserMainCode with a static method countWords which**

**accepts the two strings. The return type is the integer giving the count.**

**Note: The check is case-sensitive.**

**Create a Class Main which would be used to accept the two strings and**

**call the static method present in UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** **int** countWords(String msg,String word)

{

String [] array=msg.split(" ");

**int** count=0;

**for**(**int** i=0;i<array.length;i++)

{

**if**(array[i]==word)

{

count++;

}

}

**return** count;

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("enter the sentence");

String msg=sc.next();

System.***out***.println("enter the word");

String word=sc.next();

**new** UserMainCode ();

System.***out***.println(UserMainCode.*countWords*(msg,word));

}

}

**Output:**

enter the sentence

Hello world java is best programming language in the world

enter the word

world

Occurence of world: 2

**5.Strings Processing - Replication**

**Write a program to read a string and also a number N. Return the replica**

**of original string for n given time.**

**Include a class UserMainCode with a static method repeatString which**

**accepts the the string and the number n. The return type is the string**

**based on the problem statement.**

**Create a Class Main which would be used to accept the string and integer**

**and call the static method present in UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** String repeatString(String message,**int** N)

{

StringBuffer sb=**new** StringBuffer();

**for**(**int** i=0;i<N;i++)

{

sb.append(message+"\n");

}

**return** sb.toString();

}

**public** **static** **void** main(String[] args) {

System.***out***.println("Enter String");

Scanner sc=**new** Scanner(System.***in***);

String message=sc.next();

System.***out***.println("how many times you want it to repeat");

**int** N=sc.nextInt();

UserMainCode r=**new** UserMainCode ();

r.*repeatString*(message,N);

}

}

**Output:**

Enter String

Hello

how many times you want it to repeat

3

HelloHelloHello

**6. Reverse SubString**

**Given a string, startIndex and length, write a program to extract the**

**substring from right to left. Assume the last character has index 0.**

**Include a class UserMainCode with a static method “reverseSubstring” that**

**accepts 3 arguments and returns a string. The 1st argument corresponds to**

**the string, the second argument corresponds to the startIndex and the**

**third argument corresponds to the length.**

**Create a class Main which would get a String and 2 integers as input and**

**call the static method reverseSubstring present in the UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** String reverseSubstring(String str,**int** index1,**int** length)

{

StringBuffer sb=**new** StringBuffer(str);

sb.reverse();

str=sb.toString();

**return** str.substring(index1,(index1+length));

}

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the String");

String msg=sc.next();

System.***out***.println("Enter the starting index");

**int** index=sc.nextInt();

System.***out***.println("Enter the length of selected string");

**int** len=sc.nextInt();

msg.length();

UserMainCode a=**new** UserMainCode ();

System.***out***.println(a.*reverseSubstring*(msg, index, len));

}

}

**Output:**

Enter the String

rajasthan

Enter the starting index

2

Enter the length of selected string

3

Hts

**7.String processing – Long + Short + Long**

**Obtain two strings S1,S2 from user as input. Your program should form a**

**string of “long+short+long”, with the shorter string inside of the**

**longer String.**

**Include a class UserMainCode with a static method getCombo which accepts**

**two string variables. The return type is the string.**

**Create a Class Main which would be used to accept two Input strings and**

**call the static method present in UserMainCode.**

**import** java.util.Scanner;

**public** **class** UserMainCode {

**public** **static** String getCombo(String msg3,String msg4)

{

**if**(msg3.length()<msg4.length())

**return** msg3+""+msg4+""+msg3;

**else**

**return** msg3+""+msg4+""+msg3;

}

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String msg1,msg2;

System.***out***.println("enter the first string");

msg1=sc.next();

System.***out***.println("enter the second string");

msg2=sc.next();

UserMainCode s=**new** UserMainCode ();

System.***out***.println(s.*getCombo*(msg1,msg2));

}

}

**Output:**

enter the first string

Hello

enter the second string

Hi

HelloHiHello

**8.Write a program to read a string where all the lowercase ‘x’ char have been moved to the end of the string.**

**import** java.util.Scanner;

**public** **class** StringProcessing2 {

**public** **static** String moveX(String msg3) {

StringBuffer buf1=**new** StringBuffer();

StringBuffer buf2=**new** StringBuffer();

**for**(**int** i=0;i<msg3.length();i++)

{

**char** ch=msg3.charAt(i);

**if**(ch=='x') {

buf1.append(ch);

}

**else**

{

buf2.append(ch);

}

}

**return** buf2.append(buf1).toString();

}

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the String");

String msg1=sc.nextLine();

StringProcessing2 s=**new** StringProcessing2();

System.***out***.println(s.*moveX*(msg1));

}

}

**Output:**

Enter the String

xxhixx

hixxxx

**9.Write a program to read a sentence in string variable and convert the first letter of each word to capital case.**

**import** java.util.Scanner;

**public** **class** Uppercase {

**public** **static** String printCapitalized(String msg)

{

StringBuffer buf=**new** StringBuffer();

String[]array=msg.split(" ");

String a=**null**;

**for**(String s:array)

{

**int** n=s.length();

a=s.substring(1, n);

buf.append(s.substring(0,1).toUpperCase()).append(a).append(" ");

}

**return** buf.toString();

}

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("enter");

String msg=sc.nextLine();

Uppercase ob=**new** Uppercase();

System.***out***.println(ob.*printCapitalized*(msg));

}

}

**Output:**

enter

hello my name is akash

Hello My Name Is Akash