LAB 6 (06 QUESTIONS)

Ex1: write a java program that asks users to type in first name string (F), last name string (L), and middle name string (M). The program will print the full name in “F M L” and “L M F” formats with spaces in between.

Sample run

Please enter your first name: Bach

Please enter your last name: Le

Please enter your middle name: Viet

“F M L” format: Bach Viet Le

“L M F” format: Le Viet Bach

Ex2: write a java program that asks users to type in 03 lowercase strings. The program will print the first and the last strings in alphabetical order.

Sample run

Please enter the lowercase string: world

Please enter the lowercase string: hello

Please enter the lowercase string: peanut

The first string is: hello

The last string is: world

Ex3: Write a program **sumDigits.java** to read characters on a line, and **sum the digit characters**, ignoring the non-digit ones and everything after star (\*) character.

Sample run 1:

Enter input: v7o/K3-968+?.2@+

Sum = 35

Sample run 2:

Enter input: ^71()-2%:46"\*9W35j

Sum = 20

Ex4:

1. Write a program **countWords.java** to read an English sentence and count the number of words in the sentence. 2 words are separated by only one space.

Sample run 1:

Enter a sentence: today is a good day

Word count: 5

Sample run 2:

Enter a sentence: Sunday, 17th January 2019

Word count: 4

1. Change your program to accept sentences in which 2 words are separated by multiple spaces

Sample run 1:

Enter a sentence: today is a good day

Word count: 5

Sample run 2:

Enter a sentence: Sunday, 17th January 2019

Word count: 4

Ex5:

1. A palindrome is a text that reads the same backward as forward

Implement function ***boolean isPalindrome(String),***  which returns true if the word is a palindrome, or false otherwise.

\*\*\*Assuming ***isPalindrome***() accepts only lower-case strings

Initialize your string in main() and call ***isPalindrome***() to get the result.

Sample run 1:

Enter word: selfless

"selfless" is not a palindrome.

Sample run 2:

Enter word: kayak

"kayak" is a palindrome.

1. Change your code ***isPalindrome***() so that it will accept strings of both upper and lower cases

Sample run

Enter word: kaYAK

"kaYAK" is a palindrome.

Ex6

Implement ***String rearrange(String)*** which accepts an English word in lowercase and **return the word** string in such a way that

1. If the word starts with a consonant, move all consonants in the word to the left and all vowels to the right.
2. If the word starts with a vowel (a, e, i, o, u), move all vowels in the word to the left and all consonants to the right.

Initialize your word string in main() and call **rearrange**() to get your result

Sample run 1:

A word: programmer

Rearranged word: prgrmmroae

Sample run 2:

A word: ways

Rearranged word: wysa

Sample run 3:

A word: entity

Rearranged word: eintty

S08p07

S08p08