A picture containing logo

Description automatically generated

***LAB -5***

**(JAVA Programming)**

**Date: 10/02/23**

**Submitted BY:**

***Nandini***

***3 - MCA A 2247153***

You are given a piece of text that contains words, blank spaces and tabs only. A word

is defined as a group of contiguous non blank characters. A white space is a tab (‘\t’)

or a blank space(‘ ‘).

A class Text is designed to handle text related operations. Some of the functions

of class Text are as follows:

Class name : Text

Data member : txt – to store the given string.

Member functions

Text() : constructor

Void readText() : reads the given string from the input

Char charAt(int i) : returns the character at position i of the

string.

int length() : returns the length of the string.

int noOfWhiteSpace() : returns the total number of white space in

the text

int noOfWords() : returns the number of words in the text.

void repeatedWords() : Display all the repeated words in the given

string

void pascalCase() : Display the given string in Pascal case.

import java.util.Scanner;

public class Text {

private String txt;

public Text() {

txt = "";

}

public *void* readText() {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter text: ");

txt = scanner.nextLine();

}

public *char* charAt(*int* *i*) {

if (*i* >= 0 && *i* < txt.length()) {

return txt.charAt(*i*);

}

return '\0';

}

public *int* length() {

return txt.length();

}

public *int* noOfWhiteSpace() {

*int* count = 0;

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

if (txt.charAt(i) == ' ' || txt.charAt(i) == '\t') {

count++;

}

}

return count;

}

public *int* noOfWords() {

*int* count = 0;

*boolean* inWord = false;

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

if (txt.charAt(i) != ' ' && txt.charAt(i) != '\t') {

if (!inWord) {

count++;

inWord = true;

}

} else {

inWord = false;

}

}

return count;

}

public *void* repeatedWords() {

String[] words = txt.split("\\s+");

for (*int* i = 0; i < words.length - 1; i++) {

for (*int* j = i + 1; j < words.length; j++) {

if (words[i].equals(words[j])) {

System.out.println(words[i]);

break;

}

}

}

}

public *void* pascalCase() {

String[] words = txt.split("\\s+");

StringBuilder sb = new StringBuilder();

for (String word : words) {

if (word.length() > 0) {

sb.append(Character.toUpperCase(word.charAt(0)));

if (word.length() > 1) {

sb.append(word.substring(1).toLowerCase());

}

}

}

System.out.println(sb.toString());

}

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

Text t = new Text();

t.readText();

System.out.println("Number of white spaces: " + t.noOfWhiteSpace());

System.out.println("Number of words: " + t.noOfWords());

System.out.println("Repeated words: ");

t.repeatedWords();

System.out.print("Pascal case: ");

t.pascalCase();

}

}