## Instructions:

## Computing 3: 2020-2021

## DSA II- Assignment 1

## 1. Write a menu-driven application to implement a Text Editing Management application and its operations as described below.

## 2. The solution is to be presented in a report and is to contain

## a thorough description of the problem,

## a description of underlying data structures used to solve the problem,

## pseudocode of the Algorithms used,

## detailed description of the extra operations included

## a copy of the code,

## a description of all the methods/routines which have been used, and

## Test data used and sample execution screenshots of outputs produced.

## 3. The report, a copy of the code and an executable is to be uploaded (link tba)

## 4. Due Date: Dec 11th 2020

## The Text Editing Management (TEM) application allows a user options to add words, one by one into a text document. Update and Undo options are also provided for entered words. Update will allow option to change an already entered word and the Undo option will erase the last word you have typed in. Therefore, the words are erased in reverse order of their typing.

TEM needs to be able to perform the following operations implemented using a linked structure:

## addWord() : adds most recent typed-in word into the document

## Undo() : removes the most recently typed word

## lastTypedWord () : returns the last word that was typed in

## Update(): replaces an existing word with a new word

## size() : returns the number of words entered

## isEmpty () : checks if the document is empty

**clear() :** removes all the words from the document

* Suggest and include 2 more operations which would be suitable and useful for TEM application.

All operations are to be options on a menu – provide clear instructions on User Interface as to how to use it.

**Sample Marking scheme:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Report |  |  |  |  |  |  |  |  | Code |  |  |
| Presentation | Description problem | Data Structs Used | Spec Extra Operations | PseudoCode | Desc Functions | Code present | Test Data | Sample Exec | Quality Code | GUI | Total |
| 5 | 1 | 8 | 4 | 12 | 4 | 1 | 1 | 5 | 7 | 2 | 50 |