

Programming II Lab

Term 2 (2014-15)

SESSION 2

Working with more than one class

The focus of this lab session is to learn how to work with more than one class in a given application.

TextDocument object is an object that is made up multiple TextLine objects. Write a C++ program for implementing the TextDocument and TextLine classes. The high-level specification for both the classes given below

TextDocument

Data Members

1. A vector TextLine pointer objects (vector<TextLine*>) for holding the individual lines of the text document
2. A variable to hold the number of text lines in the document object

Methods

1. Create a constructor that takes an input stream (istream) as an argument. The constructor reads line by line from the input stream and creates a TextLine object pointers corresponding to each line and adds it to the vector.
2. Create a method **getTermCount(search_term)** that returns the number of occurrences of a given search string in the document. This method should make use a similar method in the TextLine object that returns the number of occurrences of the term within a line.
3. Create destructor method that delete the objects present in the TextLine vector

TextLine

Data Members

1. A string for holding the text of the line

Methods

1. Create a constructor that takes a string as an argument and stores it in the data member.
2. Create a method **getTermCount(search_term)** that returns the number of occurrences of the given term within a line.

Submission

- a. Submission instructions will be uploaded to LMS