

Department of Computer Engineering

University of Peradeniya

Lab 08

Programming Methodology

March 22, 2017

1 Introduction

During the lab you should implement a program that shows a given text wrapped on the screen. The idea of word wrap is to adjust the presentation of text content with the constrained “Maximum Width”. Maximum width is the number of characters you are allowed to display in a single line including spaces. Fig.1 shows non wrapped content displayed on notepad++ editor and Fig.2 shows the same content when word wrapping is enabled.

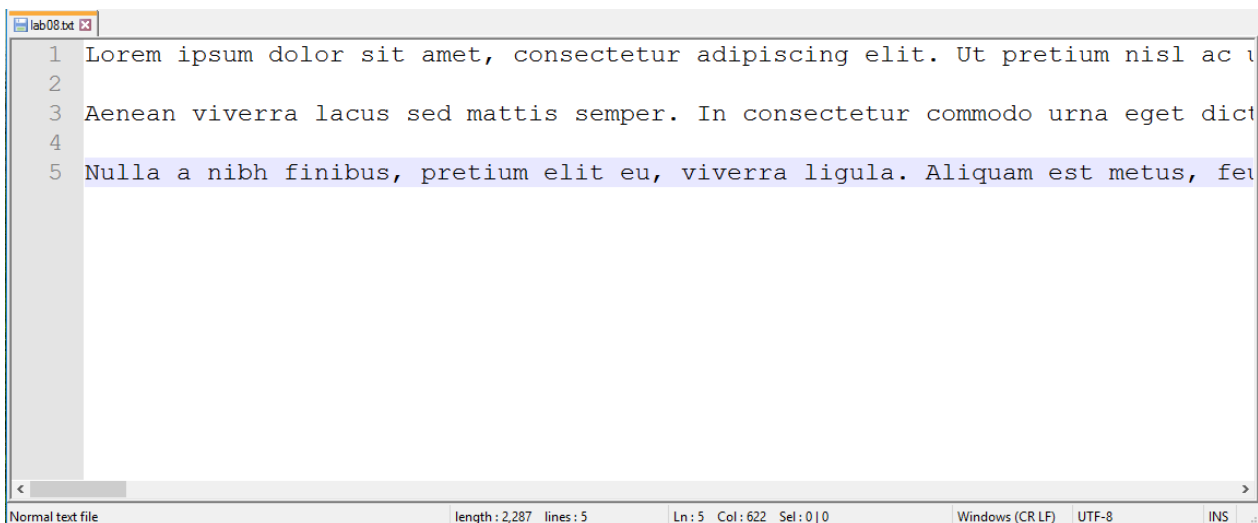


Figure 1: Non wrapped content displayed on notepad++ editor

2 During the lab

2.1 Test the given program

You are given a program (**prog**) where you can enter the maximum display width along with a text file.

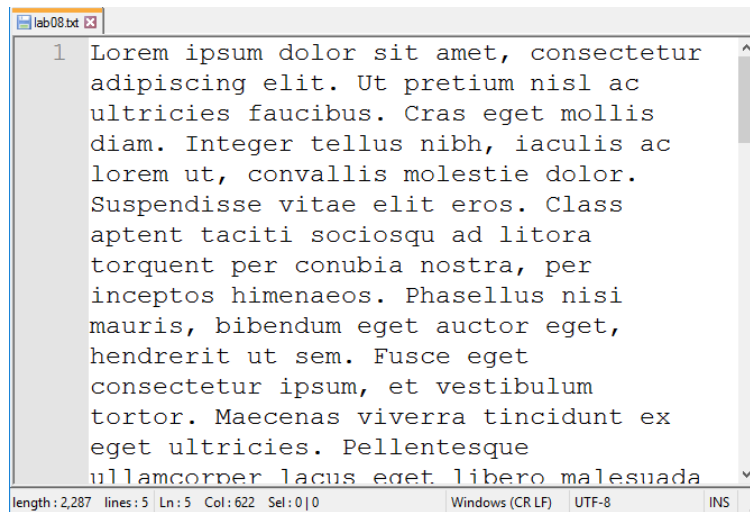
A screenshot of the Notepad++ text editor. The window title is 'lab08.txt'. The text inside is a single line of Lorem Ipsum, which has been wrapped to fit the width of the editor. The text is: '1 Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut pretium nisl ac ultricies faucibus. Cras eget mollis diam. Integer tellus nibh, iaculis ac lorem ut, convallis molestie dolor. Suspendisse vitae elit eros. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Phasellus nisi mauris, bibendum eget auctor eget, hendrerit ut sem. Fusce eget consectetur ipsum, et vestibulum tortor. Maecenas viverra tincidunt ex eget ultricies. Pellentesque ullamcorper lacus eget libero malesuada'. The status bar at the bottom shows 'length: 2,287 lines: 5 Ln: 5 Col: 622 Sel: 0|0 Windows (CR LF) UTF-8 INS'.

Figure 2: Wrapped content displayed on notepad++ editor

2.2 Constraints

You are not allowed to break a word into halves while displaying. If displaying any current word exceeds the maximum width, you should go to next line and print the word to avoid splitting words into pieces.

Obviously, you are not allowed to print more characters than the maximum width in a single line.

3 Submission

Submit a single .c file. Rename it as **14xxlab08.c** where xxx is your registration number.

4 Important

You can make a fair assumption that there are no multiple recurring occurrences of spaces or new line characters in the file.

5 Deadline

The deadline for the submission is Saturday (25) 18:00h.

6 Things you may try

1. Improve your code to show a justified view. You may need to evenly distribute additional spaces through a given line.
2. Accept additional third optional argument (output file name) to the program. If it is given, instead of displaying the content, write the content to the output file.