

# CS 1101 – FUNDAMENTALS OF PROGRAMMING

## Take Home Exercise 06

### Instructions

- Answers should be submitted as a single submission on or before the deadline mentioned in the VLE
  - Final submission should be;
    - A PDF file containing the python code in text (Attaching screenshots of the codes is not acceptable)
    - OR
    - A compressed file including the python scripts. (Scripts should be properly renamed)
  - Python code should be properly indented and comments can be added to the code where necessary to improve readability.
  - Submission should be named as <Index\_No>\_<Exercise\_No>.  
Eg: 15000\_06.zip / 15000\_06.pdf
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1. a. Write a Python program to write the following content in a text file called test.txt and read the entire text.

*Mary had a little lamb,  
Little lamb, little lamb,  
Mary had a little lamb,  
Its fleece was white as snow,  
And everywhere that Mary went,  
Mary went, Mary went,  
Everywhere that Mary went,  
The lamb was sure to go;*

b. Write a Python program to count the number of lines in the above text file.

2. Write a Python program to write the following list of content to a file.

*'Red', 'Green', 'White', 'Black', 'Pink', 'Yellow'*

3. Assume that for a particular subject there are 4 practical sessions and the teacher needs to store the practical marks of each student.

a. You are required to read the name and the marks of the students from the keyboard and write those in a file called Marks.txt.

*Format :*

<i>John</i>	<i>80</i>	<i>100</i>	<i>92</i>	<i>88</i>
<i>Peter</i>	<i>70</i>	<i>80</i>	<i>68</i>	<i>88</i>
<i>Steve</i>	<i>20</i>	<i>50</i>	<i>56</i>	<i>40</i>
<i>Stanley</i>	<i>30</i>	<i>20</i>	<i>42</i>	<i>15</i>
<i>Anne</i>	<i>80</i>	<i>50</i>	<i>84</i>	<i>62</i>
<i>Eve</i>	<i>30</i>	<i>25</i>	<i>40</i>	<i>50</i>
<i>Alexa</i>	<i>50</i>	<i>70</i>	<i>52</i>	<i>64</i>
<i>Adam</i>	<i>20</i>	<i>60</i>	<i>30</i>	<i>54</i>
<i>Jonathan</i>	<i>10</i>	<i>50</i>	<i>64</i>	<i>80</i>
<i>Emma</i>	<i>35</i>	<i>40</i>	<i>40</i>	<i>25</i>

b. Calculate the total and average marks of the students for the practical sessions and write these values in another file called FinalMarks.txt.

*Format:*

*John 360 90*

*Peter 306 76.5*

- c. When counting the number of rows in Marks.txt, the teacher has noted that she has missed the marks of 2 students. Hence by using file handling, write a python program to enter practical marks of these two students.

*Student Marks*

*Cameron 70 75 70 80*

*Kevin 100 95 80 90*

4. Write a function display\_words() in python to read lines from a text file “story.txt”, and display those words, which are less than 4 characters. The Contents of the story.txt file is as follows;

*There is a garden.*

*An airplane is in the sky.*

*The sky is blue.*

*Trees are green.*