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| **LEARNING PROFILE FOR ASSIGNMENT#\_2\_\_\_\_\_ AND QUESTION#\_1\_\_\_\_\_\_\_** | | | | | |
| *Name* | *:* | *Steven Morrissey* | *Due Date* | *:* |  |
| *Student ID* | *:* | *3300222* | *Submission Date* | *:* |  |

**1. Problem Statement:**

Read three sentences from the console application. Each sentence should not exceed 80 characters. Then, copy each character in each input sentence in a [3 x 80] character array. The first sentence should be loaded into the first row in the reverse order of characters – for example, “mary had a little lamb” should be loaded into the array as “bmal elttil a dah yram”. The second sentence should be loaded into the second row in the reverse order of words – for example, “mary had a little lamb” should be loaded into the array as “lamb little a had mary”. The third sentence should be loaded into the third row where if the index of the array is divisible by 5, then the corresponding character is replaced by the letter ‘z’ – for example, “mary had a little lamb” should be loaded into the array as “mary zad azlittze lazb” – that is, characters in index positions 5, 10, 15, and 20 were replaced by ‘z’. Note that an empty space is also a character, and that the index starts from position 0. Now print the contents of the character array on the console.

**2. Description of the Code:**

**3. Errors and Warnings:**

Table 1: List of Errors and Warnings Encountered in the Program

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Errors / Warnings** | **Details** | **How I solved them** |
| 1 | E1 | Trying to compare char to null | Compared char to int 0 to check if an element of the charArray is empty |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |

**4. Sample Input and Output:**

The exercise asked for a “console application” so I made a main method and created an application from there; however, I also wrote some junit tests to test the satisfaction of the acceptance criteria.

-test reverseByCharacter by setting a string of the expected output and comparing expected and real output

-test reverseByWord by setting a string of the expected output and comparing expected and real output

-test truncateSentence by comparing an expected output of a string with no leading or trailing whitespace to the real output

-test printChar2DArray by comparing an expected 2D character array to the real output of the method.

-test change5thPosition by comparing an expected string with each 6th character already changed to a ‘z’ to the real output of the method

**5. Discussion:**