## **Assignment 2 - Morse Code**

21

## **Background**

IT'S THE END OF THE WORLD! In the aftermath of the apocalypse, the only form of communication is the telegraph and you are now the communications expert for the people from Vault 666. However, you know little to nothing about Morse Code and can't learn it to save your life. So, you decide to make a program to help you out!



Figure 1 - Solution Example

## Task

- 1. You are developing a console application that will allow the user to enter in one or more words separated by a space.
- 2. The program will convert each letter to the corresponding Morse Code equivalent. (e.g. 'H' = '....', 'E' = '.', etc)
- 3. The program only needs to convert the **upper-case** alphabet; lower-case letters, digits, punctuation and other characters don't need to be converted and you can assume they won't be typed in.

## **Notes**

- Figure 1 is an example of what your program could look like when completed.
- Submit the completed assignment to the appropriate BrightSpace dropbox before the due date.
- Refer to the attached rubric to ensure you are completing all the required elements of the assignment.

| Criteria                 | Unsatisfactory  | Acceptable  | Good   | Exceptional  | Marks |
|--------------------------|---|---|--|--|-------|
|                          | 0   | 1   | 2  | 3  |       |
| Input &<br>Output        | - the wrong<br>information was<br>selected for input or<br>nothing was input<br>- the output was<br>unclear and currency<br>was not formatted | - some information<br>was correctly input<br>- all information is<br>output, but it needs<br>to be formatted<br>better            | - input is handled<br>- output is clear<br>and appealing, but<br>a small change<br>would improve it                                  | - user input is<br>correctly handled<br>- output to user is<br>very clear and visual<br>appealing  |       |
| Variables &<br>Constants | - all variables use the<br>wrong data type<br>- very poor names<br>were used<br>- no naming<br>convention was used                            | - some data types<br>were chosen well<br>- a few variables<br>were well-named<br>- a naming<br>convention was not<br>well used    | - most data types<br>were chosen well<br>- some variables<br>were well-named<br>- naming<br>convention was<br>mostly followed        | - most appropriate<br>data types used<br>- well-named<br>- uses appropriate<br>naming conventions  |       |
| Morse Code               | - characters are not<br>converted correctly<br>to Morse Code<br>- too many errors in<br>Morse Code exist                                      | - some characters<br>are converted<br>correctly to Morse<br>Code<br>- a few errors exist  | - most characters<br>are converted<br>correctly to Morse<br>Code<br>- a couple of errors<br>exist                                    | - all characters were<br>correctly converted to<br>Morse Code<br>- words are separated<br>by extra spacing   | x2    |
| Letter<br>Output         | - letters were not<br>output with the<br>matching Morse<br>Code   | - some letters were<br>correctly output<br>with the right Morse<br>Code   | - most letters were<br>correctly output<br>with the right<br>Morse Code  | - each letter is<br>correctly output with<br>its corresponding<br>Morse Code   |       |
| Comments                 | - little to no<br>comments used   | - comments are<br>used, some are<br>meaningful and<br>easily understood<br>- some files and<br>functions have<br>headers          | - comments are<br>used extensively,<br>most are<br>meaningful and<br>easily understood<br>- most files/<br>functions have<br>headers | - not over/under<br>commented<br>- comments are<br>meaningful and easily<br>understood<br>- files/functions have<br>headers<br>- program is self-<br>documenting |       |
| Formatting               | - was not indented<br>- there were too<br>many deviations in<br>indentation or<br>placement of braces<br>- very difficult to read             | - source code<br>formatting was<br>fairly consistent,<br>but contained some<br>inconsistency with<br>whitespace,<br>brackets, etc | - source code<br>formatting was<br>very consistent<br>with respect to<br>whitespace, brace<br>brackets,<br>parentheses, etc          | - standard indentation<br>is used throughout<br>without deviation<br>- placement of braces<br>consistent<br>- easy to read                                       |       |
|                          |   |   |  | Total  | 21    |