Test Plan

OOSDD: Project Portfolio

WS Number - 328700

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# Errors while programming

## Error: 1

Issue with Method overloading

With method overloading, the 2 functions have to have different parameters.

During runtime the correct function will be chosen based on the parameters that are included in the call. This means that the 2 functions have to differ by having either a different number of parameters, or having parameters of different types.

In my code, I had negated this fact, trying to get 2 functions that were supposed to overload not, due to having the same parameters.

A screen shot of a computer

Description automatically generated

This is an easy fix, as all we have to do is fix the parameters so that they are different allowing method overloading to work correctly.

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Having not noticed this at first, I did try using the keyword new to try and get them to work regarding some research I had done in the error, not noticing I had the parameters the same, after realising and fixing this issue though the code should now work.

## Error: 2

My next error was an error made while creating the menu.

For the menu I created its own class, in an attempt to make my code more legible and easier to follow. The menu would be able to call the different classes as needed.

When creating the starting menu, I wanted to be able to give a selection of possible things the user can do, with them then inputting a number value to represent what they do, the actions could then be executed using a switch case.

The error I developed was by trying to use a try catch block with a int.Parse.

There is a specific function called int.TryParse, that works a bit differently but also will not give me the same error I got.

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To fix this we can remove the try catch block and just replace it with the int.TryParse which outputs a Boolean that returns whether the parsing worked or not.

A screenshot of a computer program

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As well as being more legible and overall, a cleaner solution, this now allows that the code will work in a more concise manner.

## Error 3

The next error is a logical one.

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This code works great at using files to be able to turn them into morse code.

With text such as “hello” it will be able to turn it into morse (Assuming we first convert it all to uppercase)

The error occurs when it comes to spaces in the string.

For example text such as “Hello World” shows that there is an invalid character.

To fix this we can add just a simple line, adding a new key value pair.

A screen shot of a computer code

Description automatically generated

With this new line we can use / to symbolise that there is a space, as to symbolise breaking up of words.



This now accurately converts this into morse without the error we were getting before

## Error 4

While this error is small, it did mean that the program was not able to run.

In my Menu class there is a function that allows the user to be able to choose a translation from the files in a separate folder.

Before this the file was chosen statically, such as:

String file = “./Translations/international.txt”

Because we want to be able to add different translation sets later on we have to make sure it is adaptable, to do this I want the program to have the ability to be able to see the files in a directory where the translations are held and allow the user the choose one from them.

I was using the line:



Where choose language was supposed to return just the file name.

However the code returns the path to the file that was chosen.

Therefore the code can be simplified to:



This now works correctly allowing the user to choose the translation they want as well as have it translate correctly.

## Error 5

When encrypting and decrypting a string it would not work correctly. The output would not equal the input.

Upon testing what the issue was, on encrypting the middle dot character changes into a ? which would mean it would not output correctly.

A screen shot of a computer code

Description automatically generated



To fix this we can use a replace function to change the ? into the middle dot.

To fix this we first have to make sure that the middle dot character is changed into a ‘.’ Character.

We can then put this into the encryption method.

# White Box Testing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TestID | Test Description | Test Data | Expected Outcome | Actual Outcome |
| 1A | First testing the converting from text to morse, no encryption with international | Hello World | ···· · ·-·· ·-·· --- / ·-- --- ·-· ·-·· -·· | ···· · ·-·· ·-·· --- / ·-- --- ·-· ·-·· -·· |
| 2A | Testing to see if entering the morse code for hello world gives the output of hello world when converting from morse to text | ···· · ·-·· ·-·· --- / ·-- --- ·-· ·-·· -·· | HELLO WORLD | HELLO WORLD |
| 3A | Converting from text to morse, using encryption and international morse | Hello World | A encrypted string | ···· · ·-·· ·-·· --- / ·-- --- ·-· ·-·· -·· |
| 3B | Same as 3A | Same as 3A | Same as 3A | I74BzLCE24Cp9khxZOxRvdqwd3Mod/VoMzdBYDT+oJSxOZNS4IpxRQs49mS21MXY2wUfwkUAOcrDyTaOkt2Lwg== |
| 4A | Translating Morse into text but it has been encrypted | I74BzLCE24Cp9khxZOxRvdqwd3Mod/VoMzdBYDT+oJSxOZNS4IpxRQs49mS21MXY2wUfwkUAOcrDyTaOkt2Lwg== | HELLO WORLD | HELLO WORLD |
| 5A | Testing the training feature | N/A | If correct value entered then correct, otherwise incorrect and correct answer |  |

## Evidence

### Test 1A

A computer screen shot of white text

Description automatically generated

### Test 2A

A computer screen with white text

Description automatically generated

### Test 3A

While testing, it was found that the while trying to encrypt the actual value that was sent to the user was just morse unencrypted.

Upon investigation it turns out that while the encryption code was run, the new value was never saved as a variable.

To fix this all we had to was make sure that the value was saved to a variable and output that variable.

### Test 3B

A computer screen with white text

Description automatically generated

The line above the ouput value in this is just a testing value and has been removed since.

### Test 4A

A computer screen shot of a black screen

Description automatically generated

### Test 5A

A screen shot of a computer program

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