**Ongoing Testing Document**

**Error 1**

When testing the database connection, the library would not import, and I could not use the OleDb classes.

The error looked like this:



This meant that every reference to an OleDb datatype was not installed meaning I would need to install the packages or find another way to establish a database connection.

I then researched the problem online and could not find a solution I turned to my computing teacher for this, and he did not help either. I was worried I would not find a solution to this problem and thought it would take too much time to find another way and implement it, so I stuck with OleDb.

I was scheduled to meet with another teacher outside of Fife as he could also give me some guidance that an advanced higher computing teacher would have given me throughout the whole project. But before that happened, I had contacted a tester at a company called the craneware group in Edinburgh, this is where I met Phil. Phil was a tester who managed to help me with the library issue.

Phil sent me this YouTube video showing me how to solve the issue: <https://www.youtube.com/watch?v=yBJVHBaEtc8>

I had to install the NuGet package called “System.Data.OleDb”, I installed this package version 8.0 and my error messages disappeared like that!

Here is also when Phil introduced me to the idea of unit testing. Unit testing is the idea of isolating a method and testing it to show that it works. I used this throughout the whole project, and it was ridiculously useful. Isolating a method allows you to check if it works truly.

This Error was detrimental to the project, before speaking to Phil I had contacted my teacher and spoke with the technicians to download the libraries and they were no help. I tried to research the problem and had failed I was eventually going to resort to another method of connection but then I emailed Phil. This problem alone took a couple of weeks away from the project and heavily halted development as I was trying to research a way myself instead of simply asking people.

**Error 2**

When testing the insert query, I came across an issue saying there was a syntax error in the first query in the registrationDatabaseConnection method. Since I had never done databases before this project, I had no idea what I was doing. I learned about it and still could not figure out what went wrong. The code on line 196 was – Dim query As String = "INSERT INTO [userInformation] (User ID, Username, Password, Level) VALUES (" & (max + 1) & “, ‘” & tempUsername & " ', '" & tempPassword & "', " & 0 & ");"

Trying to find the issue with the code was a process that took me a while as I kept searching for syntax for insert statements in SQL. This is when I caved and contacted Phil again! Phil worked his magic again and he told me he needed to see my database and solution fully. I tried to send him this, but the email was being difficult. This is when I discovered GitHub, GitHub is a platform which many coders use to work collaboratively and helps with project management. I made an account, posted my project there and sent it to Phil. Ultimately this error taught me about GitHub and project management.

Phil told me that the error was a problem with reserved words in Access, Password and Level are both reserved keywords, to get around it you add []. This tiny issue was simply resolved by adding square brackets to the field names this cost me a few days.

The new code was Dim query As String = "INSERT INTO [userInformation] ([User ID], Username, [Password], [Level]) VALUES (" & (max + 1) & ", '" & tempUsername & "', '" & tempPassword & "', " & 0 & ");"

This new code had worked and had no errors after.

While these 2 errors may be minor, they were the only 2 significant errors I had, and they were both either syntax errors or issues with the packages installed. The smallest issue in computer science can make the biggest impact.