# Assignment 3

# Introduction

These assignments are designed to help us understand your capabilities in developing solutions to problems. The goal in the assignment is to have each candidate discuss what they did to solve the problem and hence provide us with a view into how much they understand about the basics of building solutions using software.

Any programming language can be used to solve the assignment as that is of little relevance, rather the emphasis is on the candidate knowing what they did in that language and why.

# Description

This assignment builds on code developed in Assignment 1 & 2.

In this assignment your code needs to read in all the files in a directory that match the pattern <name>.txt. Your code should use command line arguments to specify the name of a directory to be scanned for files that match that pattern.

As in assignment 2 each line of each file needs to be validated and only those lines that are valid, have the data extracted for the account number and the amount.

Produce a file that contains a summary of the amounts for each account found in all of the input files. For each account found in all files, total up the amounts and output a single line per unique account number with the total of the amounts found in the file.

Produce a second file that contains all the records found across all input files, in account number order. The file should group all the lines with the same account number and those groups should be ordered in increase account number order.

Your code should be split into methods to make it more readable. You should include comments where you think they are needed to explain what is going on. Each method and the class itself should contain documentation in the form of XML tags. See the following article - <https://docs.microsoft.com/en-us/dotnet/csharp/codedoc>. Use DocFX tool to generate documentation from your code.

## Acceptance Criteria

The input files that match the pattern will be processed. Any file not matching the pattern will be ignored

Produce a file that contains the account numbers and sum of the amounts for that account number. One row per account number. All sums for each account across all files found in the directory are to be summed.

Produce a file that contains all the valid records, where each row is ordered by account number with higher numbered accounts appearing after lower numbered accounts.

Produce documentation using DocFX from the XML tags that you have annotated your code with.

Your code should contain comments that describe what it is doing. The aim of the comments is to describe to someone who does not know your code what is happening so that they can quickly acquire knowledge of your code and possibly diagnose issues.

## Assignment Duration

You have 2 weeks to complete this assignment.

## Presentation

When you have completed the assignment, you need to email [jcatlin@concordservicing.com](mailto:jcatlin@concordservicing.com) to arrange a presentation of your work. The bulk of the presentation will be the candidate talking about their code and describing what it does and then proving that the acceptance criteria have been met.