

## **FileComparerApp**

FileComparerApp is a console application that compares two text files line to line using byte to byte comparison enabled by UTF-8.

It is able to detect exact differences, including subtle or invisible ones and then mark each line as 'Match', 'Mismatch' or 'Missing'.

The results are then displayed on the console with appropriate information then that result is also tabulated and exported onto an excel file named ComparisonReport using ClosedXML.

## **How it works**

The program asks the user to enter the file paths one by one, first for file one then for file two using the [FilePathPromter](#) class.

This class makes sure that the files exist and also remove the double quotes ("") from the copied file path that will be entered in the console

The file paths are then passed to [FileComparer](#) which reads the files line to line instead of loading it all into memory so as to accommodate huge files, then returns a list of [LineComparisonResult](#) objects containing the line number, content from each file, and status which indicates how the lines differ.

In [CompareFiles](#), [AreLinesIdentical](#) is inherited from [ByteComparer](#) and used to compare the lines byte to byte

The program then checks if the files are identical or not. If there are differences, they are displayed with this format:

Difference at line 3:

File1: Hello World

File2: Hello Word

Then all the results are exported to an excel file using [ExcelExporter](#) with proper tabulation for a clear understanding. After having generated the file the program alerts the user that file has being created successfully and created file path is also shown.

In [Program.cs](#) which is the entry point of the application, the [Main](#) serves as the main controller for the application.