# Explanation of choice

Why this challenge is chosen: While reading the provided challenges (1-800, Vehicle Survey and GEDCOM parser), the 1-800 challenge appeared clearer to me. And also, while reading the challenge, the design through process and approach has come to my mind.

# Design Approach

I have chosen basic Input/Process and Output approach, where the input is parsed to multiple digits and processed each digit independently from left to right. The output is added to list while first digit is processing. And the list will get append continuously for each digit getting processed.

Input can be provided through command prompt and also through input file. The mode of both input and output is configurable in app.config file.

The process part does all necessary parsing and transformation of every digit that includes processing every integer in the input and lookup for relevant characters in the dictionary. The dictionary is a static single entity, that will be looked into while processing the digits.

The output can be pushed either on to console or to a File. The configuration mode is available in the configuration file.

I have implemented TDD model, and OOP based class layout.

I have made a design decision to make every class is concise and every function is as tiny as possible.

I have implemented logger and writing the details in the logger file, that helps to identify any error scenario an auditing information.

A design decision made to develop this on Visual Studio 2017 Community version, and .NET Core framework.

# Steps

1. Open the solution using Visual Studio 2017 Developer community IDE or higher version
2. Make sure that the paths under app.config are available
3. The unit tests are available under “Tests” folder
4. Execute and provide input accordingly