# Introduction

In order to complete this technical test you are welcome to use either of the following applications:

* Visual Studio 2013
* Visual Studio 2015

If you do not have either of the above applications, then you can download the community edition of Visual Studio 2015 free of charge from the following URL:

<https://www.visualstudio.com/en-us/products/visual-studio-community-vs.aspx>

# Assessment Criteria

* We are interested in your technical approach to solving the problem presented.
* You are welcome to provide supporting notes, preferably as an external document (*Word document for example*), to explain your approach, caveat any design choices and explain how you would go about extending your solution should the requirement arise.
* You are welcome to use any of the namespaces and project types available in .NET 4.5.1 -> .NET 4.6.
* You are welcome to use any third party libraries that you feel are beneficial to completion of the solution.
* You must use C# as your language of choice for server-side code.
* The test is intended to be completed in under 90 minutes.

# Scenario

You are tasked with creating a lottery number generator using Test-Driven Development practices and SOLID principles.

## Conditions

1. Lottery numbers range from 1-49 inclusive.
2. You must generate a non-repeating set of six lottery numbers.
   1. *Bonus: Parameterise your solution so that any number of sets of lottery numbers can be generated.*
3. You must present the set(s) of lottery numbers generated through a suitable interface.
   1. *Bonus: Present each range of numbers per generated set in different colours according to appendix 1.*
   2. *Bonus: Write each range of numbers per generated set to a text-file located on the server.*
4. You must expose an API to enable remote querying of the lottery number generator service.
   1. *When called from a remote API you* ***do not*** *need to transmit or support any colour coding of results as specified in condition 3a.*
   2. *When called from a remote API you* ***do not*** *need to persist the results to a text-file located on the server as specified in condition 3b.*

# Appendix 1

* **1-9 Red**
* **10-19 Blue**
* **20-29 Green**
* **30-39 Orange**
* **40-49 Purple**

# Submission

You will be sent an accompanying link to a unique, shared DropBox folder that only you have access to in order for you to upload your solution once completed. Please compress your codebase in a ZIP format file **without** a password and ensure that you include all related assets and any third party libraries that you may have utilised in producing your solution.

# Final Words

Thank you for devoting the time to undertake this test and we wish you the best of luck.

We look forward to seeing your solution!