

## **.NET Developer Exercise**

Please create a separate project per test and indicate time taken.  
The tests are also open to your interpretation.

### **Test 1 – Web App**

Create a simple capture form to capture multiple users names, surnames and cellphone numbers and store the data in an XML file.  
You should be able to list all the users and edit/delete an individual user.  
Bonus points for validation, UI, OO principles

### **Test 2 – Either Console or Web or Windows Forms**

Create a simple String calculator with a method `int Add(string numbers)`  
The method must accept a string of 0, 1 or 2 numbers for example "" or "1" or "1,2" and will return their sum (for an empty string it will return 0)  
Allow the Add method to handle an unknown amount of numbers  
Allow the Add method to handle new lines between numbers (instead of commas).  
The following input is ok: "1\n2,3" (will equal 6)  
The following input is NOT ok: "1,\n" (not need to prove it - just clarifying)  
Support different delimiters  
To change a delimiter, the beginning of the string will contain a separate line that looks like this: "[delimiter]\n[numbers...]" for example "///;\n1;2" should return three where the default delimiter is ';' .  
The first line is optional. All existing scenarios should still be supported  
Calling Add with a negative number will throw an exception "negatives not allowed" - and the negative that was passed. If there are multiple negatives, show all of them in the exception message  
Bonus point for unit tests

### **Test 3 – RestAPI**

Web API can be consumed by any clients which support HTTP verbs such as GET, PUT, DELETE, POST. Since Web API services do not require configuration, they can be easily used by any client. In fact, even portable devices such as mobile devices can easily use Web API, which is undoubtedly the biggest advantage of this technology.

Create a C# REST API service that will use the GET , POST and DELETE verbs . the Api should save Simple Student Data. Retrieve and Delete Student Data.

Ensure at least 3 items are return in the JSON object for the GET method.

#### **Notes:**

- The full MSDN/Online resources are available for your use.
- You are welcome to comment your assumptions in the source files.
- Unit Test's for bonus points. Please provide the test classes if you do them.
- Source code to be hosted online (GIT Hub, Bit Bucket, Dropbox, Google Drive, One Drive, other).

