

# Test task (C#)

We have a list of regions, for example:

001 Country1

0011 Region2

0012 Region3

00123311 Region4

Amount of regions can contain ~5000 records, you can generate more test data if needed

The data should be stored in sql server and accessed via any ORM framework.

**Important: region code can be any length, including full phone number (imagine 1 phone number with 99 digits and special region with 98 digits matching this number).**

We have incoming list of phone numbers, for which we need to compute a region from the list above, for example:

00131313 - this should be detected as Country1

00112333 - Region2

00121133 - Region3

The algorithm should be optimized for performance. Database usage is only allowed to load the list of regions in memory.

The completed task should contain:

1. Asp.net core rest service with one controller containing the following endpoint  
[HttpGet("DetectCountryFor")]  
ActionResult DetectCountryFor([FromQuery]string phone)
2. Test cases, which covers the algorithm.
3. Performance tests (code) with results (statistic)
4. Text Review of your own work, what was the difficulties and how you resolved them