

Duration (1h)

**Instructions:**

1. Candidate needs to generate dynamic series till m elements using Web API
  - a. Define the API endpoint of your solution.
  - b. Describe a web-based usage of your API.
  - c. What are limitations of your solution.
2. Candidate needs to call Web API service using MVC (as required) front end.
  - a. For generation of series till m elements. (textbox as input for "m")
  - b. For executing Unit test cases by passing D and N from MVC Page. (two textboxes one for Divisor and another for Number)
3. Candidate needs to provide the limitation of their solution in text file.
  - a. Eg: series cannot be displayed after 15 numbers because of integer bit length.
4. Candidate should only provide required files (eg excluding dlls)
5. Candidate should upload their solution to any cloud platform (preferably git) & share the public url of zip file.

**Problem Statement:**

Implement a solution to retrieve Nth number from the dynamic generated series which is completely divisible by Divisor D.

The series is: 1,1,1,3,5,9,17,31,57,105,193,355,653, ... till m elements (HINT - *every number is addition of previous three numbers*).

**Sample Test cases:** Candidate needs to write Unit test case using any of (NUnit / XUnit / MsTest) for the following cases.

	Divisor(D)	Number(N)	Output
Test case 1	3	1	3
Test case 2	3	2	9
Test case 3	3	3	57
Test case 4	5	1	5
Test case 5	5	2	105
Test case 6	5	3	355