

Practical Test

Duration: 48hrs

Instructions: Attempt all questions. Read the questions carefully and endeavor to use recommended standards.

1. Given an array of integers, keep a total score based on the following:
 - a. Add 1 point for each even number in the array.
 - b. Add 3 points for each odd number in the array.
 - c. Add 5 points for every time you encounter an 8 in the array – 40 Marks

Examples:

Input: [1,2,3,4,5]

Output: 11

Input: [15,25,35]

Output: 9

Input: [8,8]

Output: 12

2. Using the data on figure 1 and 2, create a web API with the following instructions:
 - a. Create an in-memory database with the data on the tables in Figure 1 and Figure
 - b. Create a Web API endpoint that accepts a phone number as a parameter and method type is GET. It should detect the country code attached to the phone number and display the country and the country details.
 - c. Consider using recommended coding standards that you know. – 60 Marks

Example:

Input: 2348033432323

Output:

```
{
  "number": "2348033432323",
  "country": {
    "countryCode": "234",
    "name": "Nigeria",
    "countryIso": "NG",
    "countryDetails": [
      {
        "operator": "Airtel Nigeria",
        "operatorCode": "ANG"
      },
      {
        "operator": "MTN Nigeria",
        "operatorCode": "MTN NG"
      },
      {
        "operator": "9Mobile Nigeria",
        "operatorCode": "ETN"
      },
      {
        "operator": "Globacom Nigeria",
        "operatorCode": "GLO NG"
      }
    ]
  }
}
```

}
}

Figure 1. Country

Id	CountryCode	Name	CountryIso
1	234	Nigeria	NG
2	233	Ghana	GH
3	229	Benin Republic	BN
4	225	Côte d'Ivoire	CIV

Figure 2. Country Details

Id	CountryId	Operator	OperatorCode
1	1	MTN Nigeria	MTN NG
2	1	Airtel Nigeria	ANG
3	1	9 Mobile Nigeria	ETN
4	1	Globacom Nigeria	GLO NG
5	2	Vodafone Ghana	Vodafone GH
6	2	MTN Ghana	MTN Ghana
7	2	Tigo Ghana	Tigo Ghana
8	3	MTN Benin	MTN Benin
9	3	Moov Benin	Moov Benin
10	4	MTN Côte d'Ivoire	MTN CIV