

## **SDK Developer Test Assignment**

## Task: Credit Card Number Evaluator

We work with different types of data on a daily basis. An example of data we process is user credit card information. One of the common tasks is filtering lists of numbers based on two factors:

- the validity of the number
- the network the number belongs to

Your task is to design and implement a Swift/Objective-C framework which provides methods to perform this filtering. The Project must be compilable and executable. **Do not use** any 3rd party Libraries.

You can use code from your previous projects. All the details of the API design are up to you. Please pay attention to the code quality, its architecture and test components.

## **Definitions**

Assume that a credit card number is valid if:

- it contains only numbers and no leading 0
- it is 12-19 digits long
- it passes the Luhn check <a href="https://en.wikipedia.org/wiki/Luhn\_algorithm">https://en.wikipedia.org/wiki/Luhn\_algorithm</a>. For credit card numbers, the Luhn check digit is the last digit of the sequence.

In addition, connect to <a href="https://binlist.net">https://binlist.net</a> API and put additional information about credit card in response to user of your framework. You are free to choose information about the card number, which you consider necessary to return to the user.

## Sample Data

Card Number	Brand	Validity	
4929804463622139	Visa	Valid	
4929804463622138	Visa	Invalid	
6762765696545485	Maestro	Valid	
5212132012291762	MasterCard	Invalid	
6210948000000029	China Union Pay	Valid	