

## Introduction

The purpose of this test is to measure in a very simple way the aptitudes for the performance and knowledge in software development of the candidate to Developer Analyst.

## Scope

Asses communicational, technical and analytical skills of the applicant.

## Problem statement

Banshee S.A. is a company dedicated to the commercialization of bicycles for mountain biking requires a solution that allows it to manage the basic information of its customers.

### Requirements from users

- Information security.
- Usability.
- Reports.

## What you have from our Business Analyst

To solve the needs raised above, 10Pearls will implement the "InfoClients" solution, which will be a system supported on Angular, .NET and MS SQL Server database technologies.

Regarding information security, it is required that the captured data be guaranteed according to their nature or data type.

In terms of usability, the screen must be simple and agile and, in addition, errors should help both the end user and the technical team.

According to the customer's requirement (Banshee) the solution must allow Create, Modify, Delete the data of a client.

The following are the data:

Data	Description
Nit	It must be stored encrypted
Full name	
Address	
Phone	
City	There must be a master table
State	There must be a master table
Country	There must be a master table
Credit Limit	Maximum amount assigned for visits
Available credit	Each time a visit is registered, you must lower it, subtracting the Visit total from the visit registered.
Visits Percentage	
Visits	Multidimensional, they could be one or more. The following data must be registered: Date Sales Representative. There must be a master table Net Visit total = Net * Visits Percentage Description

The comment "There must be a master table" means that the data is a list type and that those lists must be populated from a table in the database.

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Also the following reports are required:

- Chart showing the number of visits by city
- Credit limit statement for a specific client. It has to show how the Credit Limit got to Available credit.

## Code challenge specification

The applicant must solve the problem using .NET, MS SQL Server database and Angular. Additionally, the solution should demonstrate the minimum use of the following aspects:

- Exception handling
- Validations
- ORM
- Grids for listing data
- MVC, MVVM, SPA

### Deliverables

- Simple Use Case or User stories
- Simple Classes diagram
- Database Model
- Database
- Installed solution
- Source code (Delivery with debugging) connected to GIT repository.
- Reports

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