

Technical Challenge

Back-End Software Engineer

Challenge Guidelines:

- The solution should be implemented using C#. It's important to use the best development practices. Performance is desirable.
- Send your solution to rhbrasil@nutcache.com
- The specific knowledge that will be evaluated, when applied, are:
 - Implementation of requirements
 - Object-oriented programming
 - Good coding practices, according to the platform of your choice
 - Unit tests and code coverage
- You should implement all required requirements before starting to develop the desired requirements.
- The use of third party libraries and APIs is permitted and recommended if these APIs enable the development to be faster and more efficient. Avoid reinventing the wheel if there are options (libraries, for example) that can make some of the work easier.

Required requirements

Nutcache Brazil it's growing and we need to create a web application to facilitate people management, to organize our employee information.

Implement an API using .Net Core.

The following needs have been identified:

- Define and implement a people registration API.
 - We identified the need for the following data:
 - Name (text) *
 - Birth Date (date picker) *
 - Gender (dropdown) *
 - Email *
 - CPF *
 - Start Date (MM/YYYY) *
 - Team (dropdown fixed data: Mobile, Frontend, Backend - could be nullable)
 - Data with * are required
- Define and implement a listing API for all employees already registered;
- Define and implement an API to delete a previously registered employee;
- Define and implement an API to edit a previously registered employee;

In addition to the API, you should implement a user interface to access the API features. This interface can be Implemented using ASP.Net MVC,a command-line interface (Console application) or a Desktop application.

The application should be developed in accordance with the recommendations below:

- Main page with registered employees grid with edit and disable options for each row
- The grid must display Name, Email, Start Date and Team for each employee;
- Popup to register an employee.
- Popup to edit a registered employee.
- Popup to confirm disable employee action.

Desirable (optional) requirements

- In addition to the code, also should be delivered by a git repository, with the following name convention: nutcache-challenge-yourFirstAndLastNameWithoutSpaces
 - A document detailing your technical solution and the instructions to run the application must be in the README.md of the root folder of your repository.
 - Only the last tag pushed in the delivery date will be considered.
- The Web front-end using Angular, Vue, React or any other framework
- Implement unit tests for all the features
- Appropriate use of SOLID, ACID and design patterns (use when necessary), according to the platform of your choice