

Development Coding Challenge

We highly value your interest in joining our team and wish you the best of luck in solving this challenge. Thank you again for considering ____ as a potential employer.

Summary

Your task is to build an API from scratch that manages users.

There is no strict time limit, and you won't be judged on how long it took you to complete. However, we would like you to spend between 2-4 hours on this.

Instructions

We want you to develop an API that exposes one RESTful endpoint. This endpoint should provide standard **GET** and **POST** functionality for **Users**.

1. You must use .NET Core 8 and C# 12
2. The API should be an ASP.NET Core Web API project
3. The API should consume and return data as JSON
4. You do not need to consider any security implications. This includes using HTTPS or attempting to provide any Authorization/Authentication.
5. You can use any persistent storage. SQL Server or in-memory DB are sufficient but should be treated as production data stores.
6. You can use any NuGet package.
7. Please add logging to all the operations and don't forget to log all exceptions.
8. Please make sure the code is testable.
9. You can use any Architectural Style but please explain why you used it in README.
10. Apply Best Practices. Explain what best practices were applied in README.
11. Please push your work to a repository on GitHub or a similar platform, and when you're ready, share the link with our recruitment team. (Mandatory).

Specification

Endpoints

Users	POST	/api/users
	GET	/api/users
	GET	/api/users/{id}
	PUT	/api/users/{id}
	DELETE	/api/users/{id}

Business Rules

Field Name	Data Type	Required	Validation
FirstName	string	true	max length 128
LastName	string	false	max length 128
Email	string	true	Valid email address
DateOfBirth	DateTime	true	Valid date
Phone Number	number	true	Valid phone with ten digits

- Every user must have a unique email address
- The user must be 18 years or older.
- When returning one user or a list of users, add the user's age and date of birth.

How we will assess your work

We seek production-quality code that appropriately utilizes design patterns and adheres to established best practices and principles, such as SOLID, DRY and Clean Code.

Good luck!