Team Lead Screening Test

Please complete the questionnaire regarding Azure development. **Please answer the questions below in writing in a separate document.**

1. What experience have you go with building and deploying Azure services?
2. **What experience have you got with Azure Functions and Azure Blob Storage?** I have experience with Azure Blob storage and AWS
3. **What experience have you got with Azure Web Apps?** I have experience with Azure Web app, Azure Function App, Cosmos DB and Azure Sql Server Datavase
4. **What experience have you got with Azure authentication used by API services with an Azure Tenant?** No, I do not have an experience with Azure Tenant integration
5. **What experience have you got with message queuing services?** I have 4 years experience with RabbitMQ
6. **What DevOps solutions have you used?**  Docker with compose and K8S
7. **What experience have you got with CQRS?** Fully implemented this pattern in my experience, mostly with microservices architecture
8. **What experience have you got with Behaviour Driven Development and Test Driven Development?** 4 years experience with BDD and TDD
9. **What is your recommended test coverage in % for the solutions that you build when it comes to unit tests and integration tests?** 80%
10. **Could you describe the typical setup for a development team that you’ve been leading?** How many developers, testers, and other IT positions were on the team? 3 QA engineers (1 automation – selenium, 2 manual QA), 8 developers, 1 PM. Actually I set up IT company infrastructure from scratch in my current position, I am responsible about all of the technical side of the company.

Please develop a small solution in C# to demonstrate your approach to developing .NET projects and coding conventions. Please follow the specification outlined below and provide the source code before the interview. Please use the default dependency container in .NET 5 in the Api to handle interfaces and classes.

**Please follow the instructions below:**

* Create a new solution and name it Recruitment.sln

Initiate a new git repository with .gitignore and commit changes +

* Create a new API project and name it Recruitment.Api in .NET 5+
* Add Swagger (OpenAPI interface) to Recruitment.Api+
* Create a new library project and name it Recruitment.Contracts to keep the contract models used to exchange models between API

Services +

* Add a health check endpoint to the API project. +
* Create a new API endpoint in the API project using the https://www.nuget.org/packages/CommandQuery NuGet package which wil

receive a new contract model called CalculateHashCommand.

* CalculateHashCommand contains the following properties: string Login and string Password which serialise to JSON in the following form: { “login”: “*Example login*”, “password”: “*Example password*” }
* The API endpoint receiving this command will calculate the SHA256 value based on the login and password values in CalculateHashCommand and return a model called HashedResult with a string property called “Result” with the hashed values based on “login” and “password”.
* Create a new library project and name it Recruitment.Client which will contain the API client class used to access the API endpoint definied in Recruitment.Api. This will be an interface and a class implementation to act as the client project for accesing the API. Please implement IRecruitmentClient and RecruitmentClient with an async appropriate method to use CalculateHashCommand.
* Create a new test project and name it Recruitment.Tests
* Please write tests with mocks to cover this solution with unit tests and integration tests
* Please provide the solution as a .zip file with the git commits included in it