Technical Exercise

Following your interview, the initial recruitment process is to complete a technical exercise.

This exercise’s goal is to highlight the way you think, write and organize your code.

You’ll need to build a web application that lists contacts, and lets the user drill down and list each contact

addresses.

You’ll find attached a SQL script that will create the necessary tables and fill them with data. Your job is to create the API layer, the client application, and **add any optimization you may find relevant to any layer in the stack, such as the database.**

Hera are the application requirements:

• Page to list, sort and filter the contacts

o Will display the Title, Name, Age, Favorite Flag, ContactDetail count, and link to show all the contact details for a contact

o Should allow filtering/searching on the name

o Paging

o Sorting on any field

• Page to show the contact details for a given contact

o Will list all the contact details for a given user

▪ List with the type and content of the contact detail

And the evaluation criteria:

• Technology

o For DB you may use MySQL, SQL Server (Express Edition is enough), SQLite or any Cloud database compatible with MySQL - use the provided script to generate the schema and fill the tables with data

o For backend please use **Node.js**, and you are encouraged to use any popular web framework and project generator

o For client side please use **Javascript**, and you are encouraged to use any popular UI

framework and project generator

o For SCM please use git, and you are encouraged to upload your source code to a public git repository (proper commit history will be a plus)

o Deploying the application to any cloud platform will be a plus

• Best practices on all layers

o Easy to debug, troubleshoot and audit

o Use the right **design patterns**

o Ensure some level **abstraction**

• Focus on clean and readable code

• Focus on performance

• Write a small document explaining the instructions to run the code (if needed)

o Deployment strategy (App + DB)

o Technical choices (including the tools you have used)

o Architecture

o Possible future improvements

o Strategy to track user actions and detect anomalies when in production

You may take as much time as you need, **up to 1 week**, from the date you receive this exercise.