

## Mada Al Arab Engineering Exercise

In this exercise you are required to build a web application that will help us to evaluate your ability to quickly learn a new web framework and relevant libraries, and explore your ability to enhance your existing web development skills into a new environment.

This task expects to take few hours meanwhile we will give you a good chance to get into the web stack and new web stack environment.

The task description provided should give you a full view of the required functionality to implement and explore, if you don't have experience with Python, Django, Mysql the documentation in their sites are excellent for learning.

As a beginner to our web stack we don't expect you to have a perfect solution as we write, but we expect you to be able to defend any decision you take. Also we expect you to have the motivation and to be creative in your implementation decisions, and you are welcomed to ask questions as you go.

Please provide the code via a Github repository, either open sourced or shared with rawad@mada.ps.

Please contact me via email, phone in case you have any questions.

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### **Exercise description:**

The exercise is to build a simple CRM (Customer Relationship Management) web application that handle company daily business daily operations, CRM systems have a lot of modules and specifications but for our exercise we want to have the following modules:

- 1- Customer module that contains all data about customer.
- 2- Service module that has all the services the company provides.
- 3- Employees module that login to the system and add, manage, update customers and services that the customer can take.

The application you build should have the following features:

- 1- Ability to login to the system.
- 2- Ability to search for customers.
- 3- Ability to add customers.

- 4- Ability to edit customers.
- 5- Ability to delete customers.
- 6- Ability to list all services the customer have
- 7- Ability to add new service to any customer.
- 8- Ability to stop service for a customer.
- 9- Ability to let super admin to add new service in the company.
- 10- Ability to list all customers with their active services.

Hints:

- You are not required to build a fancy user interface, simple bootstrap user interface will be great.
- Having a good database schema and design will help you to have a good solution.
- Django super admin can help you in doing **some** functionalities **but not all of it**.
- Development python over Linux is much easier than windows, you can do it on Ubuntu if you are familiar with it.

**Technology:**

The entire application should be written using the following technology:

- Python 3.7
- Django latest version
- Mysql 5.7 or newer version
- Bootstrap 4 for UI
- Vue from frontend

**Best of luck**