

Assignment for a Software Engineer Position

This assignment is meant to gauge your development skills. It focuses on creating a functional API following REST standards that is connected to a database. Feel free to use the technology stack that you prefer.

Introduction

Suppose that you were to start a new company and you need to develop the backend layer for a portal to help you manage your company. The portal consists of the following model entities:

- **User:** represent the portal user (manager or employee)
- **Department:** an employee **must** be assigned to a department at all times (You can't delete a department that has employees)
- **Project:** represent the projects to be assigned to your employees, an employee can work on multiple projects at the same time

Details

Core functionalities:

- Login and register functionalities, you have two roles (manager and employee)
- Managers can create, edit and delete employees, projects, and departments
- Managers can assign Employees to Projects, and unassign them as well
- Managers can change the Employee department
- Managers can list all employees, search employees by name or email and filter by department or projects
- Employees can only retrieve their own profile (employee details, department and assigned projects)

***** Optimize for a very large number of records *****

Delivery

You are expected to provide us with a working REST API of the described parts, evaluated on the overall technical design, security considerations, and the completeness of the solution.

Use Postman (or any similar tool) to test you API and **Create a collection of all request and make sure its well organized**

The source code of the application should be pushed to Github, make sure your commits are **small** and **properly named**.

