



## TEST ASSIGNMENT FOR CANDIDATES FOR A FULL-STACK DEVELOPER POSITION

Test assignment consists of 3 parts: Front end task, data structures and a backend task.

### 1. Frontend Task

Need to create an application to edit the list of Groups and Roles. Roles are combined into groups.

#### Group list:

- you can create a new group;
- you can edit the name of existing groups;

#### Form to edit the list of roles included in the group:

- list of all roles;
- ability to mark the roles required for the group;
- filter:
  - display all roles, marked roles, filter by label;
  - list search;
  - page navigation (pagination).

The mockup shows an example of editing access groups. The interface for editing roles looks similar, only the left part contains a list of roles and the right part contains a list of access roles.

# Permissions

Groups Roles

Groups	Roles
Admins	<input type="text" value="search"/> <input type="button" value="Show All"/>
General Managers	<input checked="" type="checkbox"/> Pizza editor
Managers - Tech	<input checked="" type="checkbox"/> Dust sniffer
Manager - Billing	<input checked="" type="checkbox"/> Poker cheater
Managers - Sales	<input checked="" type="checkbox"/> Drug user
Support - Tech	
Support - Billing	
Support - Sales	
<input type="button" value="+ Add New Group"/>	

1 2 3

## Recommendations

It is not necessary to implement the server part, it is enough to start-up the webpack dev server. You can store the data (access rights) can be stored in a JSON-file.

## Technologies

Webpack (v2/3) - for building. The project must have a file describing how to start the project (readme.md).

Angular (v2/4) - for developing client-side logic. You can also use components.

## UX

- Responsive (up to and including 320px in width).

## CSS



- Do not use CSS framework;
- use BEM methodology for naming classes;
- use preprocessor (PostCSS);
- support latest versions of browsers;



## 2. Data structures

- Create a relational database model on the topic "Selling railroad tickets";
- How detailed the description of the subject area will be, you decide
- It is desirable to use MSSQL Server
- The result of the task can be a dump of the created database (\*.bak file), \*.dacpac schema description or SQL script that creates the database

## 3. Back-end Task (.Net app)

- Write a "proxy" that will return the modified text of reddit.com (or any other site of your choice);
- To each word, which consists of six letters, you must add a symbol "™";
- You can use any .Net technology and libraries in the C# language;
- The functionality of the original site must not be altered;
- All internal navigation links of the site must be replaced by the address of the proxy-server.

That is, site navigation must be handled by a Proxy without taking the client back to the original site.

Example. A request to, say, {proxy address}/r/popular/ should show the content of the page

<https://www.reddit.com/r/popular/> with changed words that were 6 characters long.

And all the site navigation to sections of the site should go through Proxy.

Hint: There is no SLOC limit for your solution. But, if your proxy solution contains more than 300 SLOC, then probably you do something wrong.

### Publishing the test task

The project must be published in a **private** repository on github.com or bitbucket.org.