

# Project Management UI

Q4.1 What would the interface for role management look like within the contacts app?

Projects and roles for each contact would be displayed when viewing the details for each individual contact, either when selecting a contact in the list view or when editing a contact.

This would be intended to prevent clutter and bloat of the primary list view of the application, instead keeping these details to a component where we can better manage the display of a list of projects of unknown length.

## Details View

The details view would display the list of contact projects in a separate column to their personal information. Depending on the upper limit of the number of projects we may either make the list scrollable, or only display the most recent and active projects the contact is involved with.

## Edit Contact Overlay

To keep the overlay within a fixed height the project list would use a scrollable view.

Explicit buttons would be used for the addition and particularly the removal of projects from a contacts details to prevent accidental data loss.

## Coding Challenge 2024 - Contact List

Add Contact

Jim Jimson

View Details

Edit Contact

Jack Jackson

View Details

Edit Contact

Jack Jackson

Phone:

Email:

Project 1

Project 2

Project 3

Manager

User

User

## Overlay with no project selected

When the user has not selected a project the delete button would be made inactive.

## Editing Contact with ID: 2

Project 1	Manager
Project 2	Admin
Project 3	User

Add New

Delete

Save

Cancel

Overlay with project selected

Selected projects would be highlighted and the delete button would be made active. Customer deletion would be preceded by a confirmation pop-up to prevent the user from accidentally deleting data.

## Editing Contact with ID: 2

Project 1	Manager
Project 2	Admin
Project 3	User

Add New

Delete

Save

Cancel

### Updating a project

As a simple initial prototype for updating a customer's project and role a dropdown of available options would be shown when selecting either the project name or role.

I would avoid making this UI any more complex, and would create separate pages/forms for users to add new projects or roles to the application rather than allowing it here.

If the number of either projects or roles were sufficiently large, I would suggest replacing the dropdown with a search overlay so that users can quickly filter out irrelevant options when updating a contact.

Editing Contact with ID: 2

Jack|

Jackson

Phone Number

Email Address

Project 1	Manager
Project 2	Admin
Project 3	User
Project 1	
Project 2	
Project 4	

Delete

Save

Cancel

## Editing Contact with ID: 2

Project 1	<div>Manager</div>
Project 2	<div>Admin</div>
Project 3	<div>User</div>
	<div>Manager</div>
<div>Add New</div>	<div>Admin</div>

Save

Cancel

### Q4.2 How would I approach the implementation of this feature?

The first step would be requirements gathering, the data source for the projects and roles would significantly alter how I would need to implement the calls to the ngrx store or external APIs.

Some follow up questions I would likely ask are:

- Are users expected to be able to add new roles or projects in the future?
- Should any restrictions apply to the assignment of specific roles to a contact? E.g: Will the 'manager' role be restricted to certain contacts who are known to be managers within the organization.
- What is the largest number of projects any given contact is expected to be assigned to?

- Where is project/role information stored? Is it separate to contact details or will it be retrieved as part of each contact?

Following that the high level implementation steps I would expect are:

1. Adding either a role service or extending the existing contact service by adding a method to fetch all available roles that can be assigned.
2. Create a separate interface to define a project, with name and role fields.
3. Extending the contact interface to include assigned projects.
4. Updating the contact-detail component to display the contacts projects
5. Updating the contact-edit-dialogue component with
  - Buttons for adding / removing projects from a contact
  - A scrollable list view for all assigned projects
6. For the dropdown menu to update the role for a project I would create a generic dropdown component that would take a list of options and use two way data binding on the role field.
7. Update the contact-detail component to use the newly created dropdown component for the project role field.
8. Add a test case to the contact service to check that projects & roles for a contact are correctly saved in addition to the other contact details.