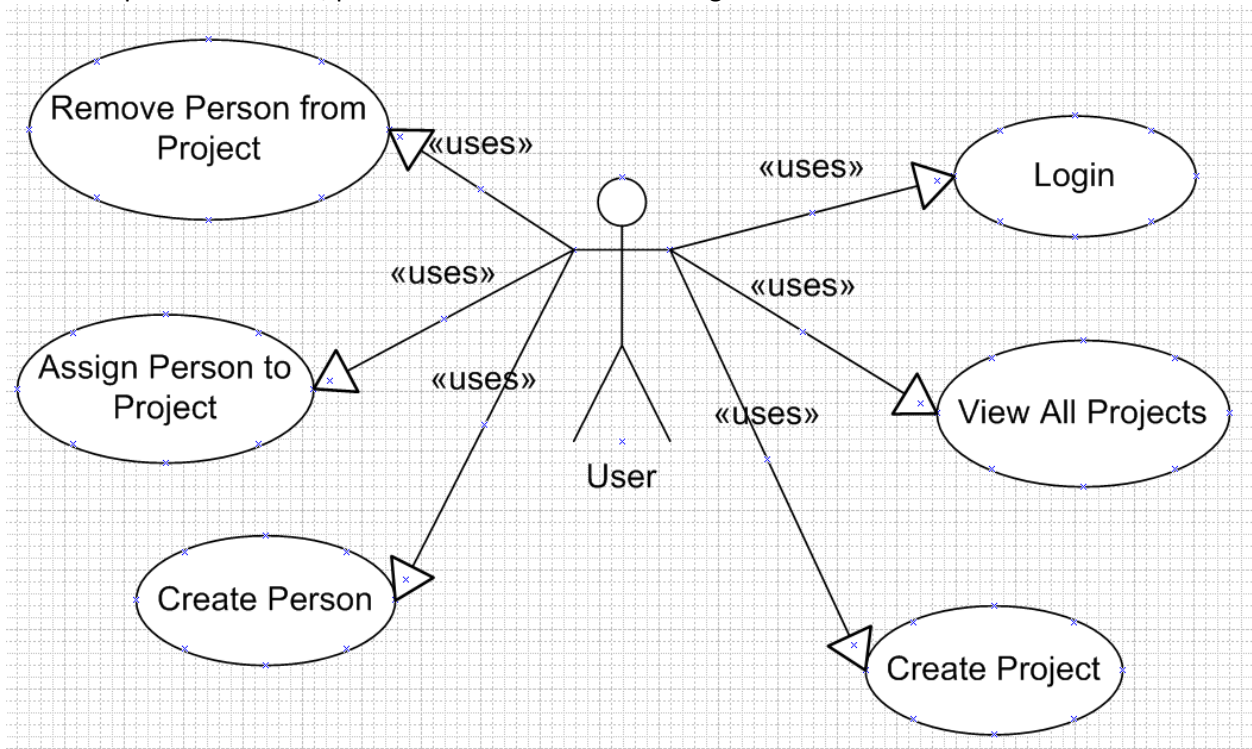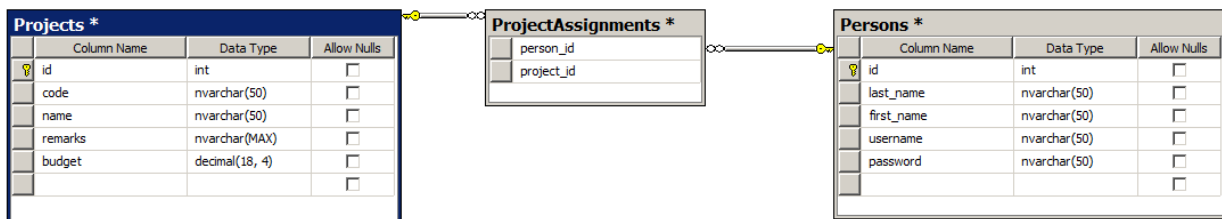# The Projector

Create a project monitoring system that is able to:
- Create and list projects
- Create and list persons
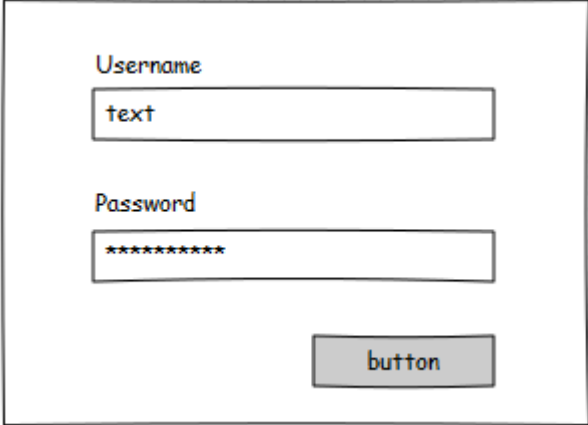- Assign persons to projects

For a complete feature set, please refer to the use-case diagram below:

The requirements is supported by the proposed database schema (you may add/remove tables or columns from the proposed schema)
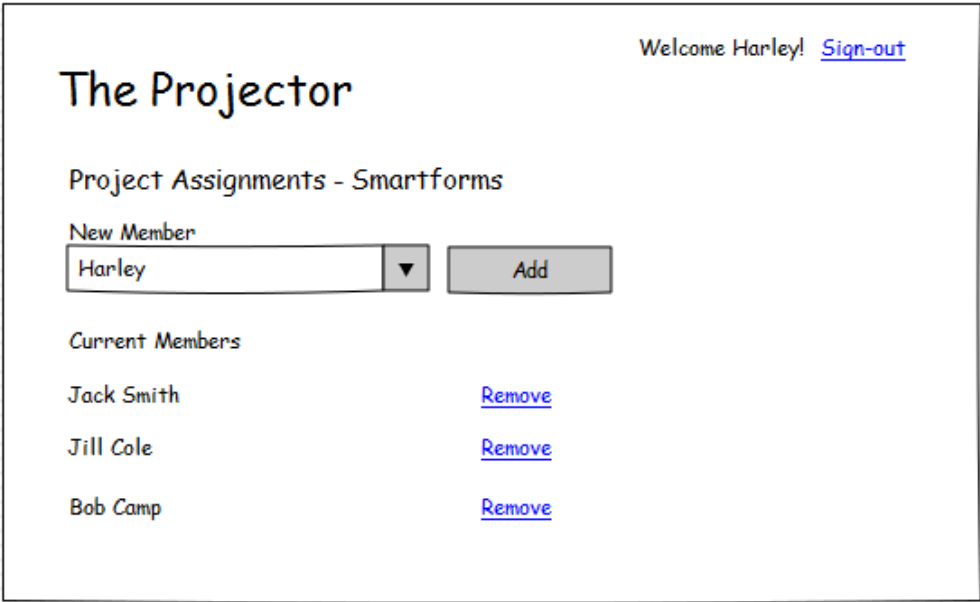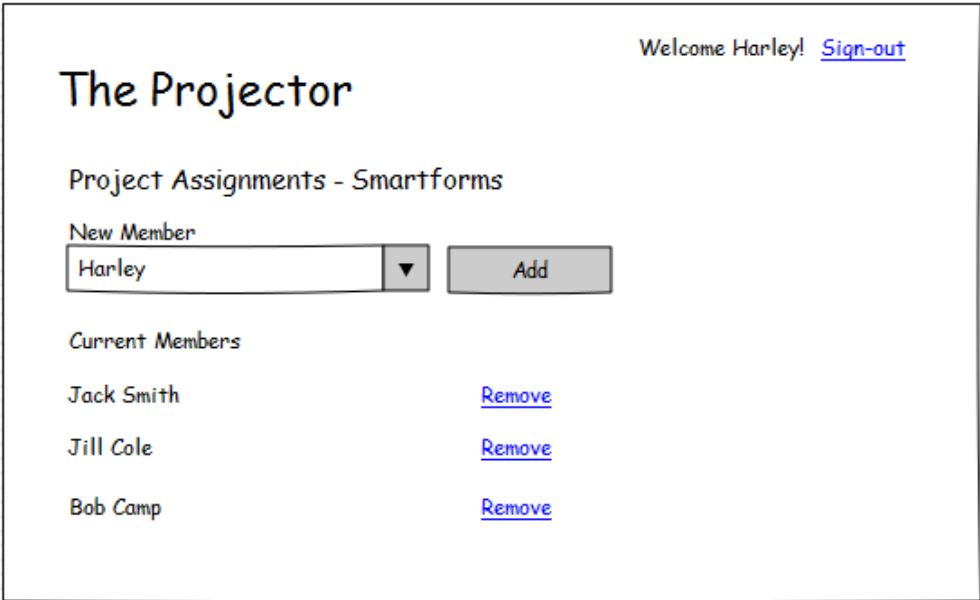

Projects *

	Column Name	Data Type	Allow Nulls
🔑	id	int	☐
	code	nvarchar(50)	☐
	name	nvarchar(50)	☐
	remarks	nvarchar(MAX)	☐
	budget	decimal(18, 4)	☐
			☐

ProjectAssignments *

	person_id
	project_id

Persons *

	Column Name	Data Type	Allow Nulls
🔑	id	int	☐
	last_name	nvarchar(50)	☐
	first_name	nvarchar(50)	☐
	username	nvarchar(50)	☐
	password	nvarchar(50)	☐
			☐

Requirements

Use-case Name	Login
Actor	User
Pre-condition	User is not logged in
Expected URL Format	GET http://localhost/projector/signin POST http://localhost/projector/signin
Story Details	As a user, I should be able to see the login screen and enter my credentials to be authenticated by the system. The login screen should be able to accept a username in the form of an e-mail address which should be 5 to 200 characters long and a password which should be 7 to 11 characters long.
Exceptions	The user should be redirected to the list of projects page if already logged in.
Remarks	

Use-case Name	View All Projects
Actor	User
Pre-condition	User is logged in
Expected URL Format	GET http://localhost/projector/projects
Story Details	As a user, I should be able to see all the projects that are stored in the system. In addition to showing the available projects, the screen should provide links to the following functionality • Create Project • Create Person
Exceptions	If an unauthenticated user tries to view this page, redirect to Login page. If there are no projects available in the system, show the message "No projects available" instead of an empty table.
Remarks	

Use-case Name	Create Project
Actor	User
Pre-condition	User is logged in
Expected URL Format	GET http://localhost/projector/projects/create POST http://localhost/projector/projects/create
Story Details	As a user, I should be able to create new projects in the system.
Exceptions	If an unauthenticated user tries to view this page, redirect to Login page.
Remarks	Welcome Harley! Sign-out **The Projector** Create Project Code text Name text Budget numeric Remarks text Save

Use-case Name	Create Person
Actor	User
Pre-condition	User is logged in
Expected URL Format	GET http://localhost/projector/persons/create POST http://localhost/projector/persons/create
Story Details	As a user, I should be able to create new persons that I can assign to projects. Field Definitions: | Field	Length	Format
---	---	---
Last name	2 to 50	Alpha
First Name	2 to 50	Alpha
Username	5 to 200	E-Mail
Password	7 to 11	Alpha-numeric, special characters allowed, spaces not allowed.	
Exceptions	If an unauthenticated user tries to view this page, redirect to Login page.
Remarks	Welcome Harley! Sign-out **The Projector** Create Person Last name text First Name text Username numeric Password ********** Save

Use-case Name	Assign Person to Project
Actor	User
Pre-condition	User is logged in
Expected URL Format	GET http://localhost/projector/projects/assignments JSON POST to http://localhost/projector/projects/assign
Story Details	As a user, I should be able to assign people to projects. This view is accessible via the "View all projects" screen, when the user clicks on the "assignments" link. Clicking the "Add" button adds the member to the project. Note: Only persons that are not currently assigned to the project should be available in the dropdown list. Technical Requirements: - This page is AJAX-driven. All actions must be done via JSON-POST. - Clicking "add" should not cause the page to reload. - Send the "project id" and "person id" as a JSON POST request to the server. - Add the new person to the "Current Members" area without causing the whole page to reload.
Exceptions	If an unauthenticated user tries to view this page, redirect to Login page.
Remarks	

Use-case Name	Remove Person from Project
Actor	User
Pre-condition	User is logged in
Expected URL Format	GET http://localhost/projector/projects/assignments JSON POST to http://localhost/projector/projects/unassign

Story Details	As a user, I should be able to remove people from projects.
	
	This view is accessible via the "View all projects" screen, when the user clicks on the "assignments" link.
	
	Clicking the "Remove" link removes the member from the project.
	
	Technical Requirements:
	• This page is AJAX-driven. All actions must be done via JSON-POST.
	• Clicking the "remove" link should not cause the page to reload.
	    ○ Send the "project id" and "person id" as a JSON POST request to the server.
	    ○ Remove the person from the "Current Members" area without causing the whole page to reload.

Exceptions	If an unauthenticated user tries to view this page, redirect to Login page.
Remarks	

Welcome Harley! Sign-out

The Projector

Project Assignments - Smartforms

New Member

| Harley | ▼ | Add |

Current Members

Jack Smith	Remove
Jill Cole	Remove
Bob Camp	Remove

Technical Requirements

You are required to use the following to complete the application:
- PHP 5.5 (or later)
- Symfony 2 or 3
- Doctrine
- MySQL (or MariaDB)
- HTML 4 or 5 (use the appropriate doctype)
- CSS
- Javascript

Optional Technology
- Vagrant
- Docker
- AngularJS (1.x)
- Gulp

Technical Guidance

These are the suggested artifacts that we need to implement the application. However, feel free to use your own code organization style to show your real software design prowess. ☺ Not using any of the suggested components will not be taken against you.

Controllers	ProjectsController PersonsController SignInController	Logic for controllers should be limited to: fetching/resolving the correct models/service AND redirecting to or returning the appropriate view/resource
Services	ProjectService PersonService	
Entities	Project Person	
Models	SignInInputModel CreateOrUpdateProjectInputModel AssignProjectInputModel UnassignProjectInputModel ProjectsViewModel ProjectAssignmentsViewModel	Not recommended to use Database Entities for persistence as parameters to controller actions.