

DOPPLER

Project Manager

Objective

Develop research software that allows the user to create projects with a title, details, environment, and associated partners. Additionally, it should enable the management of partners by creating, editing, deleting and viewing each one of them.

Scope of the Software: Research Project Management System for Improving Bean Crops

Description: The DOPPLER software aims to facilitate the management and oversight of research projects focused on the improvement of bean crops. The primary focus of the software will be to address issues related to pests and conduct assessments of plant behavior in specific environments.

This project will provide researchers and scientists with a way to track and monitor bean crops, where they can keep an updated database with all events that occur, such as the species of pests encountered and the performance in the growth of plants exposed to different environments.

Additionally, the software will be available for use on any device, allowing workers to update data from their mobile phones, tablets, and laptops when in the field, eliminating the dependency on a desktop computer alone.

Finally, the project will include the option to link partners to the projects. This is aimed at maintaining an organized record of internal or external collaborators, who can be individuals or companies.

Key Features:

- **Project Creation:** Allows users to create new research projects with descriptive titles. Includes the ability to add specific details about the project, such as objectives, methodology, and timelines.
- **Partner Management:** Facilitates the inclusion and administration of partners linked to the project, such as researchers, agronomists, and pest experts.
- **Project Tracing:** Gives the user a way to keep tracking of the project by updating it when necessary.

Figma:

<https://www.figma.com/file/cS3xN5Dzqcjrsu2HJzmXur/DOPPLER?type=design&node-id=0-1&mode=design>

Functional Requirements

Req1	Create project
Summary	The user will be able to create a project
Input	title, details, environment, status and optionally partners
Output	void
Priority	Very high

Req2	Edit project
Summary	The user will be able to edit a project
Input	id of the project, status, title, environment and additional details
Output	void
Priority	Very high

Req3	Delete project
Summary	The user will be able to delete a project
Input	id of the project
Output	void
Priority	Very high

Req3	View projects
Summary	The user will be able to see all the projects
Input	void
Output	all the created projects
Priority	Very high

Req4	Navigate in the website
Summary	The user will be able to navigate through the pages
Input	void
Output	all the created projects
Priority	High

Req5	Pagination in projects
Summary	The user will be able to navigate through the pages of the projects and will only see maximum 10 projects per page
Input	void
Output	void
Priority	High

Req6	Pagination in partners
Summary	The user will be able to navigate through the pages of the partners and will only see maximum 10 projects per page
Input	void
Output	void
Priority	High

Req7	Create partner
Summary	The user will be able to create a partner
Input	title, status and partners
Output	void
Priority	Very high

Req8	Edit partner
Summary	The user will be able to edit a partner
Input	id of the partner, name, phone number, description and type
Output	void
Priority	Very high

Req9	Delete partner
Summary	The user will be able to delete a partner
Input	id of the partner
Output	void
Priority	Very high

Req10	View partners
Summary	The user will be able to see all the partners
Input	void
Output	all the created partners
Priority	Very high

Req11	Search partners
Summary	The user will be able to search partners by their name
Input	Text (a name)
Output	show the partners with the input name
Priority	Very high

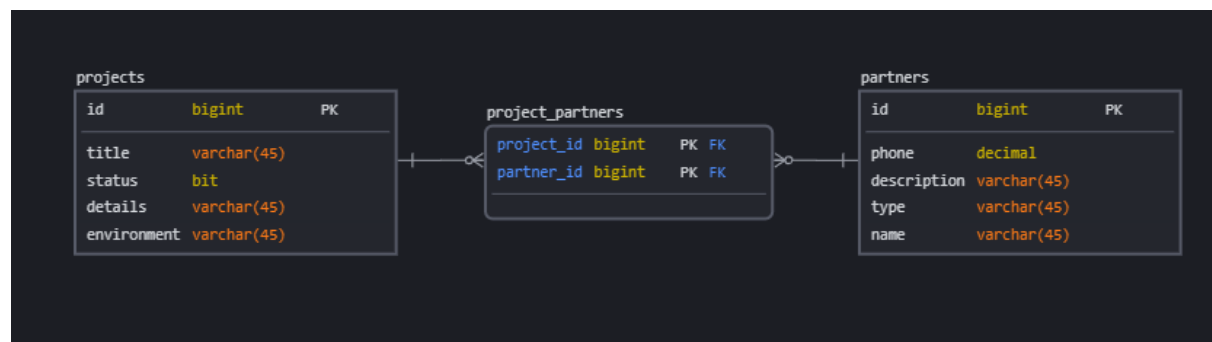
Req12	Search projects
Summary	The user will be able to search projects by their title
Input	Text (a title)
Output	show the projects with the input title
Priority	Very high

Req13	Export projects
Summary	The user will be able to export the projects in a CSV file
Input	void
Output	a CSV file with the projects
Priority	High

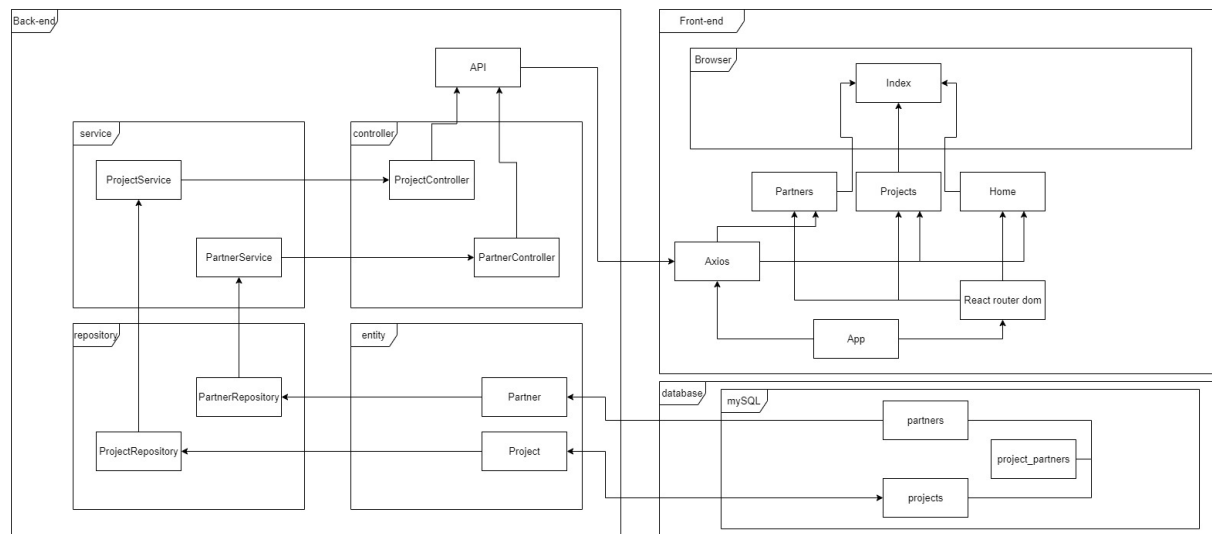
Non-Functional Requirements:

- Develop the front-end with Javascript, HTML and CSS with any framework.
- Develop the back-end with Java with any framework.
- Develop a database with MySQL.
- Expose endpoints from the back-end to be consumed in the front-end.
- Create the tables projects, partners and project_partners.
- Develop the front-end with responsive design.
- Validate each form.

Database model:



Software Architecture:



(The database model and architecture design will be available in full format in the folder docs in the front-end)