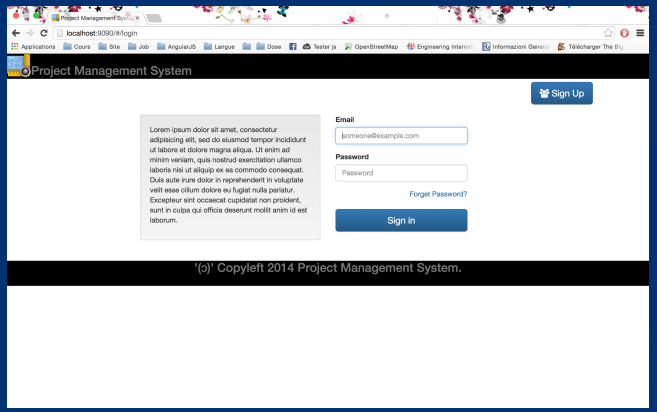
DOSE 2014

WEB-BASED PROJECT MANAGEMENT SYSTEM



GROUP6

Milan2 (backend): Nicolò Gallo Perozzi, Marion Depuydt, Anna Maria Nestorov

RioCuarto6 (frontend): Matias Bernal, Marcelo Felice, Nicholas Gomez, Guillermo Morilla

PUCRS4 (requirements): Gabriel Oliveira, Lauriane Moraes, Adalto Sparremberger

DEFINITION FROM SRS DOCUMENT

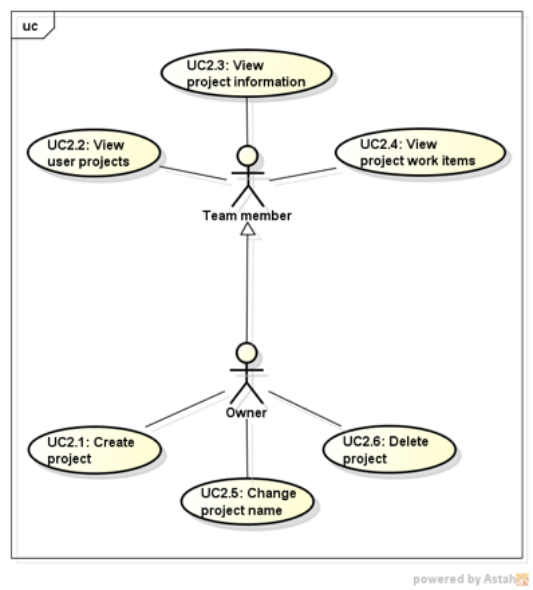
The web-based project management system need to supports:

- A group of developers working together, in one or more locations;
- Project development through successive iterations;
- Project progress tracking.

REQUIREMENTS

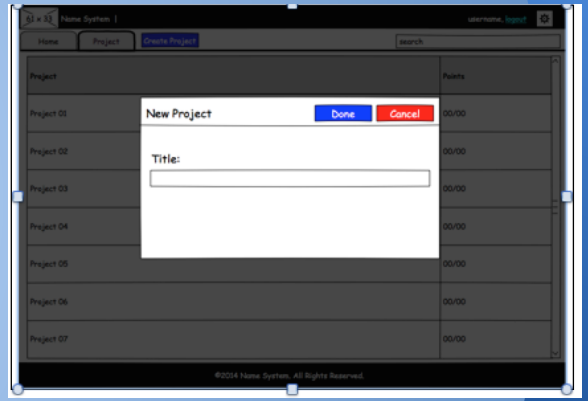
- **USERS:**
  - *UC 1.1 - Login.*
  - *UC 1.2 - Create account*
  - *UC 1.3 - Update account*
  - *UC 1.4 - Delete account*
- **PROJECTS:**
  - *UC 2.1 - Create project*
  - *UC 2.2 - View User Projects*
  - *UC 2.3 - View Project Information*
  - *UC 2.4 - View Project Work Items*
  - *UC 2.5 - Change Project Name*
  - *UC 2.6 - Delete project*
- **ITERATIONS:**
  - *UC 3.1 - Create iteration*
  - *UC 3.2 - Delete iteration*
  - *UC 3.3 - View iteration*
- **MEMBERS:**
  - *UC 4.1 - Add Member to Project*
  - *UC 4.2 - View Project Members*
  - *UC 4.3 - Remove Member from Project*
  - *UC 4.4 - Promote owner*
- **WORK ITEMS:**
  - *UC 5.1 - Create work item*
  - *UC 5.2 - List Work Items*
  - *UC 5.3 - Order Work Items*
  - *UC 5.4 - Filter Work Items*
  - *UC 5.5 - View Work Item*
  - *UC5.6 - Update Work item Fields*
  - *UC5.7 - Add Comment to Work item*
  - *UC5.8 - Add Link to Work item*
  - *UC5.9 - Remove Link to Work item*
  - *UC5.10 - Delete work item*
- **DASHBOARD:**
  - *UC 6.1 - Home Dashboard*
  - *UC 6.2 - Navigate to other Dashboards*
  - *UC 6.3 - List archived Work Items*
  - *UC6.4 - Global Work Item Search*
  - *UC6.5 - Global Other Users Search*

EXAMPLE: PROJECT REQUIREMENTS



UC2.1 - Create project

UC description - Create project	
Objective	The user is creating a new project and the system shall create and show it on user's Project tab.
Priority	High
Source	Gabriel Oliveira (Business Analyst).
Actors	• User
Preconditions	UC1.1 was followed (User is logged).
Post Conditions	The project was added to the list of user's project and is shown on Project tab.
Basic Flow	1. User goes to Project tab; 2. System loads a list with all the projects a user owns or has membership; 3. User clicks on "+" button; 4. System shows a popup, with an input field and a "Done" and "Cancel" button, so the user can fill the project name. 5. User fills the project name; 6. User clicks on "Done" button; 7. System validates the project name; 8. System adds the project name to the Database; 9. System adds the project name to the listing on Project tab; 10. System creates the iteration "Backlog" inside that project.
Alternative Flow	**Alternative Flow 1 - At Step 6, the User clicks on "Cancel"** 1. Return to Step 2. **Alternative Flow 2 - At Step 7, the informed project name has more than 40 characters** 1. An error message is shown to the user; 2. Return to Step 4. **Alternative Flow 3 - At Step 8, the informed project name already exists on the Database** 1. An error message is shown to the user; 2. Return to Step 4.
Exception Flow	
Notes/Issues	
Screen Flow	



HOW WE EVALUATED THE REQUIREMENTS

Completeness ⇨ All goals have been correctly specified.

Pertinence ⇨ The requirements or the domain assumptions are necessarily for the satisfaction of goals.

Consistency ⇨ Goals, requirements and assumptions have been formulated without contradiction.

Unambiguity ⇨ A couple of assumptions was not be stated clearly. Indeed we asked for explanations to the Brazilian group.
For instance: role of a user, meaning of the backlog iteration and what exactly a work item was.

Feasibility ⇨ The goals and requirements were realisable within the final deadline.

Comprehensibility ⇨ It was comprehensible, with the exception of a few irrelevant grammar mistakes.

Traceability ⇨ It was very easy to retrieve each requirement and in most of the UCs they put references to the other ones.

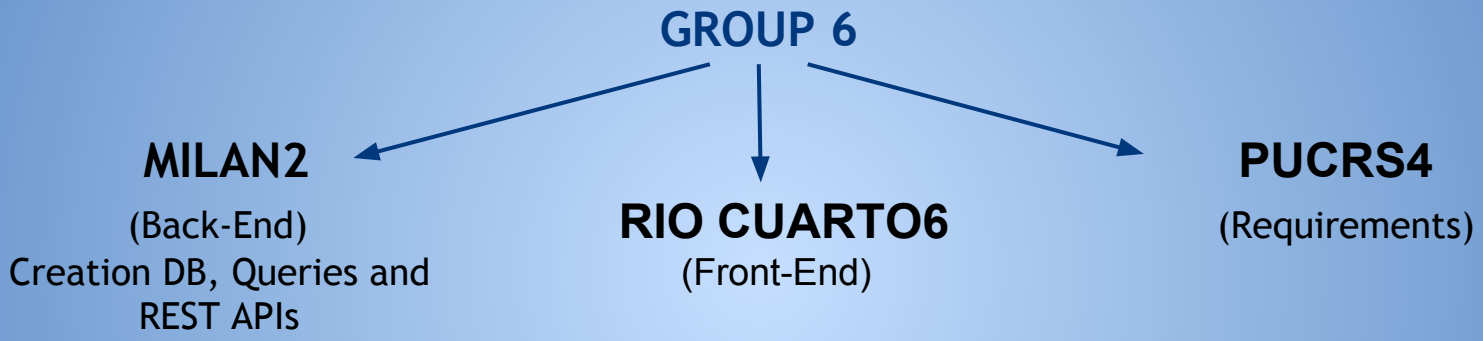
Good Structuring ⇨ The structure of the document was very clear and well formed. It was useful for understanding to have in most of the UCs a ‘screen flow’.

Modifiability ⇨ First, it appeared to be easy to modify, during the creation of our application we did some local modifications and they were carried out easily.

Priorities ⇨ Into the requirement document the Brazilian team assigned some priorities which we have modified with respect to our weekly deadlines in agreement with the Argentinian team.

ROLES AND ORGANIZATIONS

ROLES:



ORGANIZATION:

1. Weekly meetings via Skype;
2. Google docs (in suggesting mode).
3. A team leader in each team.

FOLLOWED PROCESS

1. CREATION of the DB based on the requirement document;
2. CREATION of the QUERIES based on the requirement document;
3. CREATION of the REST APIs with respect to the google doc created specifically for them;
4. CREATION and TESTING of the CONTROLLERS by the extension POSTMAN of Google Chrome;
5. CONNECTION of the APPLICATION with PYTHON SCRIPTS for sending emails where it was requested;
6. CONNECTION of the BACK-END part with the FRONT-END one.

ISSUES ENCOUNTERED

- EiffelStudio bugs;
- Sending emails: we tried to do this by EiffelStudio but there isn't a clear documentation, so we asked suggestions to the other Milan groups and we asked help to Jordan and Martin;
- There isn't a thorough documentation about EiffelStudio;
- Meetings: jet lag, the Argentinian group in some cases didn't show up for meeting and an unexpected problem of the language (in one case we asked the guy to spoke in spanish);
- Misunderstanding: all requests are POST Methods instead of being POST, DELETE and GET.

PROTOTYPES

A prototype of our application was required for the 25th of November, with features:

- the implementation of the DB database.db;
- all definitions of our queries with empty body;

```
Example:
add_project (a_project_name: STRING; a_user_name: STRING)
        do

        end
```

- all definitions into application.e of our APIs;

```
Example:
map_uri_template_agent_with_request_methods ("/api/projects", agent project_ctrl.add_project, router.methods_post)
```

- all controllers with the connected methods with empty body.

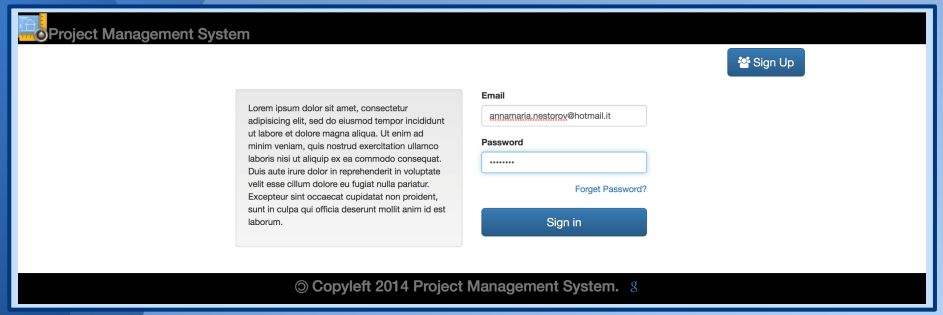
```
Example:
add_project (req: WSF_REQUEST; res: WSF_RESPONSE)
        do

        end
```

FINAL VERSION

The final version of our application was required for the 15th of December.
Every feature was supposed to be implemented and correctly working.

To do that, we worked in parallel with RioCuarto team via Skype, trying to fix all problems related to the integration of frontend and backend part.

Also, a video showing our application and a report about implemented/not-implemented requirements were required.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Sign Up
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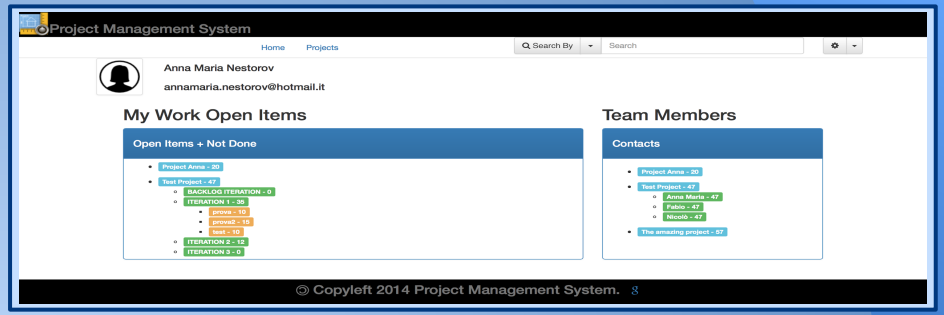
Project Management System
Home
Projects
Search By
Search
Anna Maria Nestorov
annamaria.nestorov@hotmail.it
My Work Open Items
Open Items + Not Done
Project Anna - 20
Test Project - 47
BACKLOG ITERATION - 0
ITERATION 1 - 35
prova - 10
prova2 - 15
test - 10
ITERATION 2 - 12
ITERATION 3 - 0
Team Members
Contacts
Project Anna - 20
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Anna Maria - 47
Fabio - 47
Nicolò - 47
The amazing project - 57
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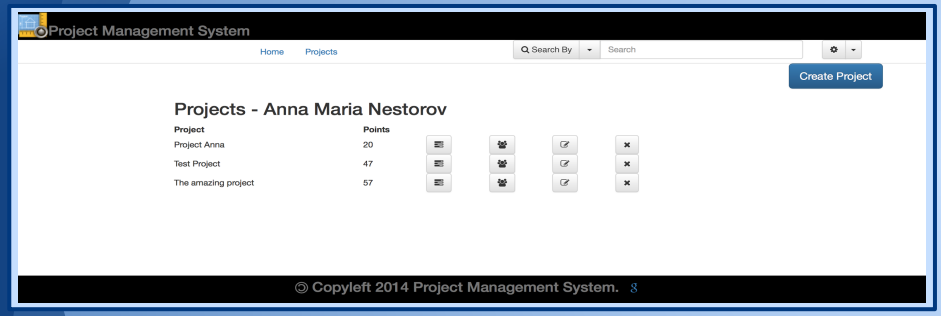
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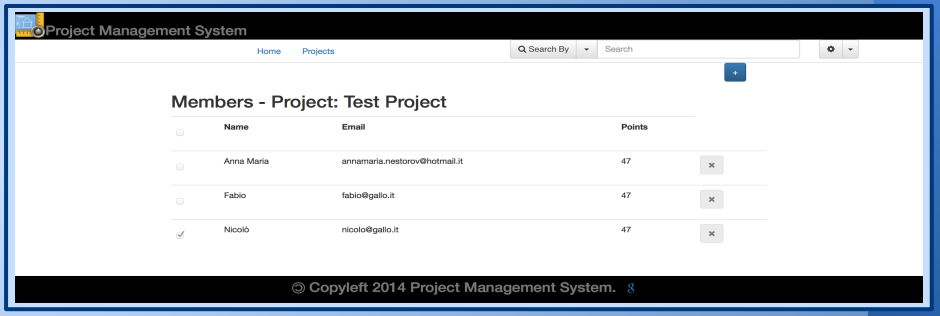
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Members - Project: Test Project
Name
Email
Points
Anna Maria
annamaria.nestorov@hotmail.it
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Fabio
fabio@gallo.it
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Nicolò
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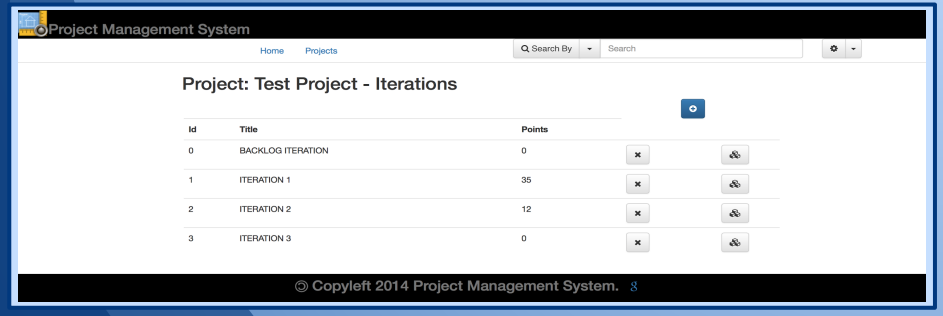
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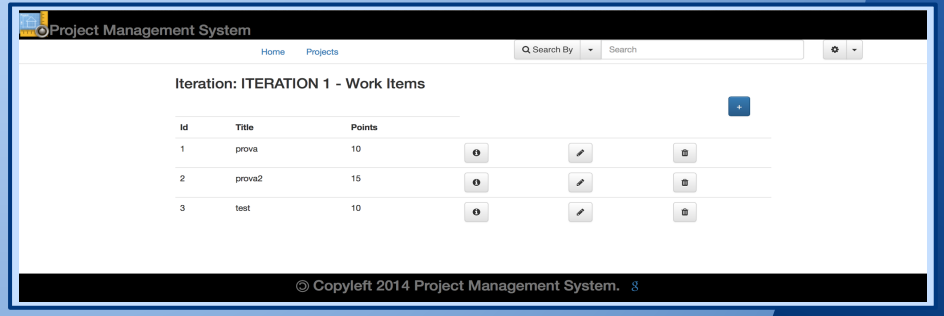
Project Management System
Home
Projects
Search By
Search
Iteration: ITERATION 1 - Work Items
Id
Title
Points
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prova
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2
prova2
15
3
test
10
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DEMO VIDEO


Work Item Information
Done
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MISSING PARTS

- Not implemented requirements:
  - **UC 5.3** - Order work items
  - **UC 5.4** - Filter work items
  - **UC 6.3** - List achieved work items
- Partially implemented requirements:
  - **UC 1.2** - Create account (no uploaded photo)
  - **UC 1.3** - Update account (no uploaded photo)
  - **UC 6.1** - Home dashboard (no achieved work items)
- Modified requirements:
  - **UC 5.10** - Delete work item (effective removal of the WI)
  - **UC 4.3** - Remove member from project (only owners allowed to do it)

CONCLUSIONS

- Main issues
  - Communication problems (different languages);
  - Significant difference between time zones;
  - Lack of Eiffel documentation;
  - Strictness and shortness of the deadlines;
  - Unclearness of the first couple of assignments.
- Positive aspects
  - Really interesting and formative experience;
  - Importance (and difficulty) of working as part of a group and a team;
  - Importance of organizing and cooperate our work.

Thank you for your attention

Do you have any questions?