



End of Studies Project Specifications

Professional Master DSIR

"Development of Computer Systems and Networks"

Option: GLNT

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Title of Subject: Extension of Odoo Project module: Implementation Scrum Agile Methodology

Organization: DS Games E Sistemas

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I. Presentation of the project:

1.Context:

Implementation of ERP solution « Odoo » and extension of its modules « Project » to add the Scrum Agile Methodologies functionalities.

2. Problem:

Currently, the company do not use any technology to manage their IT projects. To organize the development of their technological projects and to manage their team, the company decided to adopt the agile scrum method to manage their project and use an ERP to automate their Information System.

3. Proposed solution and expected results:

To make the company more clear and more controlled, we suggested to implement the following Odoo modules:

- Discuss
- projects
- calendar
- Sales
- Purchase
- Marketing
- Human Resource
- Invoicing
- CRM

Those basic modules of Odoo CE 14.0 cover almost 60% of the company needs. A specific development is necessary to complete the 40% of needs:

- create a sheet-time module.
- Add Gant view to project module.
- Add Scrum functionalities to the project module.

II. Functional and non-functional needs and list of actors:

1. Functional needs:

This module implements all concepts defined by the Scrum Project Management Methodology. This application respects the scrum.org protocol and has the following features:

- Project roles
 - Scrum Master
 - Product Owner
 - Development Team
- Sprint Releases
- Sprints
 - Date_start and date_stop
 - Standup meetings for each user of team
 - Sprint review
 - Sprint retrospective
 - Planned velocity (you write velocity desired and displayed on Sprint Velocity Chart)
 - Effective velocity (it is computed by all users stories affected to the sprint)
 - Effective velocity done (it is computed by all users stories done and displayed on Sprint Velocity Chart)
- Product Backlog (users stories)
 - New kanban view
 - Date_open and date_done
 - Story complexity points
 - Text area for describe tests acceptance
- Display charts
 - Burdown Chart (based on story points)
 - Sprints Velocity (for each Scrum project)
- Sandbox
 - A developer of development team can add a user story to sandbox
 - The product owner can valid it (transfer into product backlog) or delete it

It adds some concepts to the project management module:

- Mid-term, long-term roadmap
- Customers/functional requests VS technical ones

It also create a new reporting:

- Burn-down chart
- Bar chart
- Line chart
- Pie chart

2. Non-functional requirements:

Visibility: The interfaces must be simple and easy to handle.

Reliability and speed: Our system must guarantee the speed and reliability of the search for information, as well as optimal management of resources.

Security: The application must provide users with personalized access and a secure connection. It must have an authentication interface that allows administrators and developers to connect to consult their workspaces (notion of session).

Availability: The system must be always accessible.

Simplicity: the system must be simple and understandable even by non-specialists.

Extensible and maintenance: Our application must be extensible by other functionalities and other modules.

Performance: The system must be efficient; it must meet basic functionalities with a fast data loading time.

3. The actors:

- Administrator: Responsible of the platform Odoo.
- Developers: access to the platform each one to his own session to update or modify his sprints.
- Project manager owner
- ... (scrum role)
- CEO: Control and be up to date with any modifications.

III. Presentation of the work constraints:

In this part, you cite the technical constraints that the solution will have to support such as:

1. Technological constraints:

- ERP system: Odoo v14
- Database: PostgreSQL
- Coding Language: Python

2. Organizational constraints:

Weekly meetings with the CEO of the company with daily updates with my assistant from the university.

3. Time constraints:

Not yet decided.

4. Reference:

Not yet decided.