SECOND TASK REQUERIMENTS

Alex Gómez Clavero Gabriel Cadafalch Chavez Alex García Martínez ABP - Project 2: ERP DAM 2 M

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RESEARCH ON ERP

Alex Gómez Clavero Gabriel Cadafalch Chavez Alex García Martínez ABP - Project 2: ERP DAM 2 M

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1. What is an ERP?

An ERP is software that companies use to manage their day-to-day business activities in a single system, which is composed of different modules. The most common of which are:

- Human Resources
- Finance
- Inventory

An ERP also contains a user management system (CRM), to manage different kinds of roles, such as an administrator, user, etc.

Thanks to an ERP, a company can centralize all its processes and provide employees with all the data in real time.

2. Types of ERP

Some types of ERP are:

- **Generalists**: They are ERPs that are focused to cover various types of industries.
- **Specific**: They are ERPs focused on a single sector, such as health, education, agriculture...
- Cloud-based: These are ERP systems that run in the cloud, allowing companies to
 access their functions and data via the internet. These systems typically offer
 scalability, flexibility and ease of access from anywhere with an internet connection.
- Modular: Are structured in a modular way, which means that modules can be added or removed according to the specific needs of the company.

3. Advantages and disadvantages of ERP

Advantages	Disadvantages
Process automation	Completeness
Data unification	Adaptation to the ERP
Improved productivity through easy access to data	Supplier dependence

4. Objectives of an ERP

The objective of an ERP is to find a good productivity and efficiency for a company.

An ERP has to unify and centralize all the company's processes and data, processes that can be organized in modules, and allow the company to adapt to its own changes. organized by modules, and allow the company to adapt to its own changes.

To facilitate the work of employees, it must also automate repetitive tasks to avoid errors. avoid failures.

5. Characteristics and configuration of the investigated ERPs

5.1. ERP Dolibarr investigated (Alex Gómez)

It is a free open source ERP/CRM software package for small and medium enterprises, foundations or independent professionals. It is a web application and can therefore be used from any web browser that has access to the Internet. Despite the large number of features it implements, Dolibarr aims to be a simple solution for people without technical knowledge due to its ease of installation and use.

5.1.1. Characteristics

ERP Name	Dolibarr ERP/CRM
URL	Dolibarr Open Source ERP y CRM: web package
Development company	Rodolphe Quiedeville (2002-2008 former lead developer) Dolibarr Foundation (2009 actual)
Launch date	The first shared version was completed in September 2003.
Development country	France
Licence	It is an open source project, it allows anyone to analyze it and modify its code as it suits them. GNU General Public License
Platforms	It is compatible with Linux, Mac and Windows devices.
Online	The Dolibarr application can be installed and used as a local or online application. Can be used from anywhere, on any device.
Versions	Releases - Dolibarr ERP CRM Wiki Latest Dolibarr ERP Release - CRM - SourceForge.net
Development language	Dolibarr is developed in PHP. Dolibarr works with all PHP configurations and does not require any specific or add-on PHP modules For now it only supports the MySQL database. It's been designed to work with the most possible servers or hosts.
Technical requirements	The ERP only requires an OS that supports a web server with PHP (minimum 5.6.0+) and a SQL database (MySQL 5.1+), with a minimum of 200MB of space for the operation of the ERP (not counting the extra modules or additional content attached).
CRM included	Yes, you have complete functionality for the management of Customer Relations Management.
Price	The software is free, but if you don't want to install it and prefer to use the web version there are different offers, such as a 15-day free trial with subsequent payment.

5.1.2. Functionalities

Mainly maintains Business Resource Planning and Human Relations Management functions. It is a perfectly modifiable and adaptable model that can adapt to the needs of each company.

Details of the main modules include:

- CRM & Sales
 - Prospects / Customers
 - Opportunities
 - o Proposals
 - o Sales orders
 - o Contracts / Subscriptions
 - Help desk / Tickets

All control of sales, management, customers and contacts and manage your order workflow and product stock according to your needs.

- Human Relationship Management (HR)
 - Employees
 - o Expense Reports
 - Leave Requests
 - o TimeSheets
 - Recruitment
 - Membership

It allows you to manage your company's human resources in an easy and simple way. Administration of users, user groups and permissions, control of expenses, request for permissions for employees and control of hours spent.

- CMS, Website, POS
 - o CMS / Website
 - E-commerce
 - Point of sale

A CMS module to build your website in minutes and gives you an online point of sale with its own e-commerce platform.

- Product & Stock
 - o Products, Services
 - Stock
 - o Purchase, approvisionnement
 - Shipments
 - o Production

It allows you to manage your catalog of products and services, control the workflow of orders, and list the materials and resources for manufacturing.

- Finance & Billing
 - Billing & Payments
 - o Bank reconciliation
 - Double entry accounting

It allows you to manage your catalog of products and services, control the workflow of orders, and list the materials and resources for manufacturing.

- Marketing
 - Mail
 - o Forms

Email service imbued for easy use and contact with the outside, survey system to take into account the opinion of any topic of your employees or contacts of interest.

- Productivity
 - o Projects, Tasks
 - Interventions
 - o Schedule

Perfect module for monitoring the company's projects, facilitating the collection of data on potential customers and opportunities, manages the interventions to invoice the customer and control the activity through the agenda integrated in the ERP and CRM.

- Integration, Development
 - o API
 - Connectivity with external tools
 - Import and export
 - o Module builder for developers

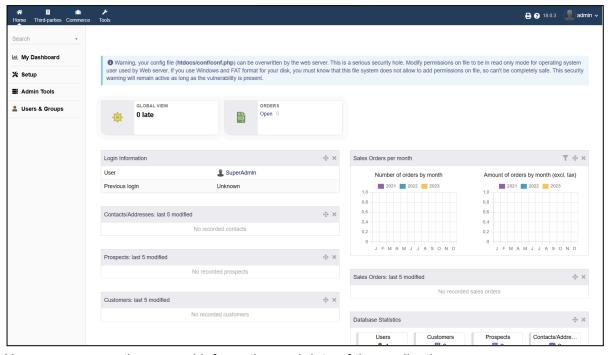
They allow the integration of any application with Dolibarr with the API and Hooks and data import/export.

5.1.2.1. Creation of new modules

If you have knowledge of SQL and PHP, you may use the native module builder wizard to create new modules.

5.1.3. Demo screens

Main screen



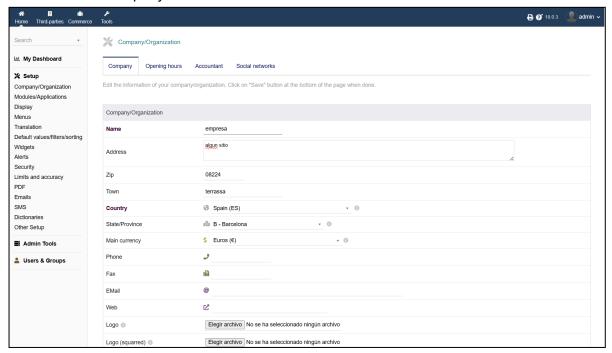
Here you can see the general information and data of the application.

• Setup Screen

These screens are mainly for setting and updating different settings of the ERP configuration

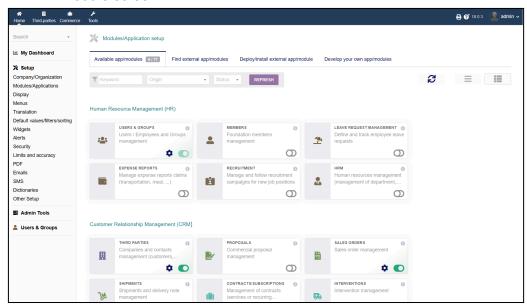
Output

Company data screen



Here you can modify the company data and different configurations.

Module screen



You can enable which modules you want to have in the ERP. You can also add external modules from different sources or create your own modules, even commission them from another party.

o Create new module

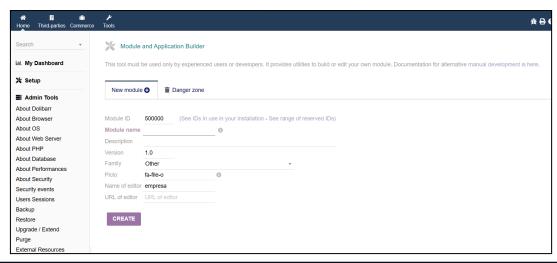


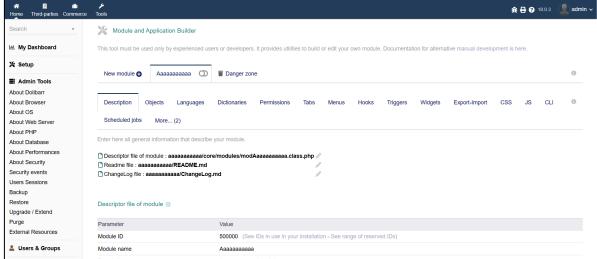
Enable the module "Module and Application Builder" on "Available App/modules"



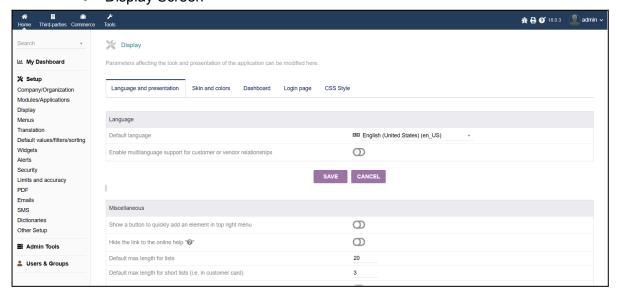
and use the top right corner menu (bug) use the "Module and Application Builder".







Display Screen



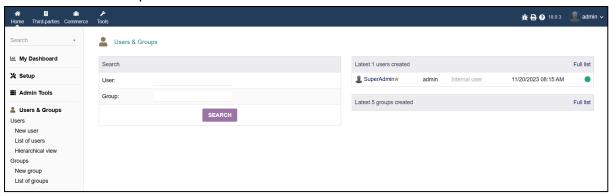
Parameters affecting the look and presentation of the application can be modified here.

More screens can be seen on the Setup section, all managing different parts of the ERP.

- Administration Screen
 - o Informative Screens

image text

• Users & Groups Screen



This screen allows you to search, create and manage different users and groups.

5.2 Katana ERP (Gabriel)

ERP Name	Katana MRP
URL	https://katanamrp.com/
Development company	Katana
Launch date	2018
Development country	Estonia
Licence	
Platforms	All (Cloud-based)
Online	Yes
Actual version	1.0
Development language	Unknown, but in the developer section, the Katana API, shows the resources section in which you can see different programming languages. Some of them are Shell, Python, Java and C++.
Technical requirements	None / Not found
CRM included	Yes
Free	No, Subscription-based.

5.2.1 Functionalities

The main characteristics that offer this specific ERP are:

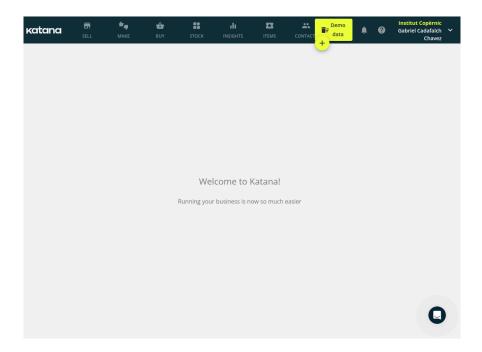
- **Inventory management:** The software focuses on efficient inventory management, offering real-time tracking, order management, and tools for setting reorder points.
- Material Requirements Planning (MRP): The MRP functionality helps in calculating the materials needed for production based on current inventory levels, sales orders, and production schedules.
- **Production planning and scheduling:** Katana MRP assists users in planning and scheduling production tasks based on demand. It helps optimize resource allocation for manufacturing processes which is also another characteristic of this software.
- Integration capabilities: Katana MRP integrates with other business tools, such as
 e-commerce platforms, accounting software, and CRMs (Customer Relationship
 Management), to streamline workflows and enhance overall business efficiency.
- Customization options and scalability: The company that runs the ERP may offer
 customization options, allowing businesses to adjust the software to their needs. And
 the software is designed to scale with the growing needs of the business, being in
 size or complexity.

5.2.3 Characteristics

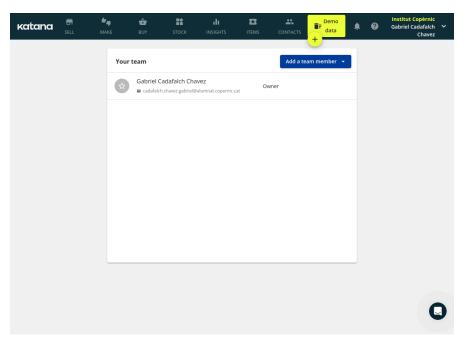
The standard language of the software is English, but because Katana supports applying Google Translate extension functionality to the software that enables using Katana in any language. Katana MRP is designed with an intuitive and user-friendly interface to provide a clear overview of production processes, inventory and other essential business aspects.

5.2.4 Demo screens

Layout:



Users:



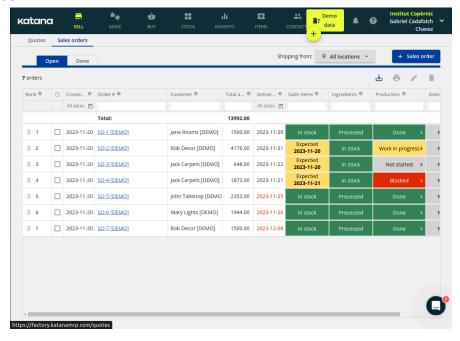
As this is an ERP which targets businesses, the users are employees of said company.

So, the roles that can be assigned to the users of the ERP are 'Users' that can access all of the modules or set custom permissions to this employee. The other role that can be assigned is Operator

which cannot access the main ERP, instead they access a Shop-Floor application. This app is the one that the business uses to Monitor raw material usage, operational task progress, stock counts, and order fulfillment with shop floor control software that gives the complete visibility needed for the company.

Modules:

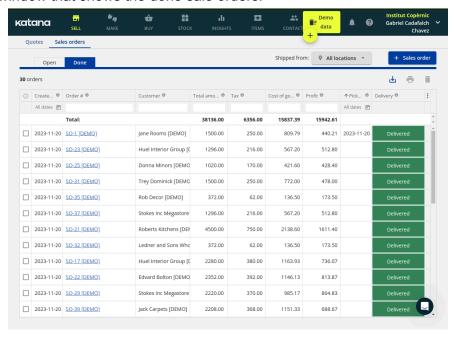
Sales:



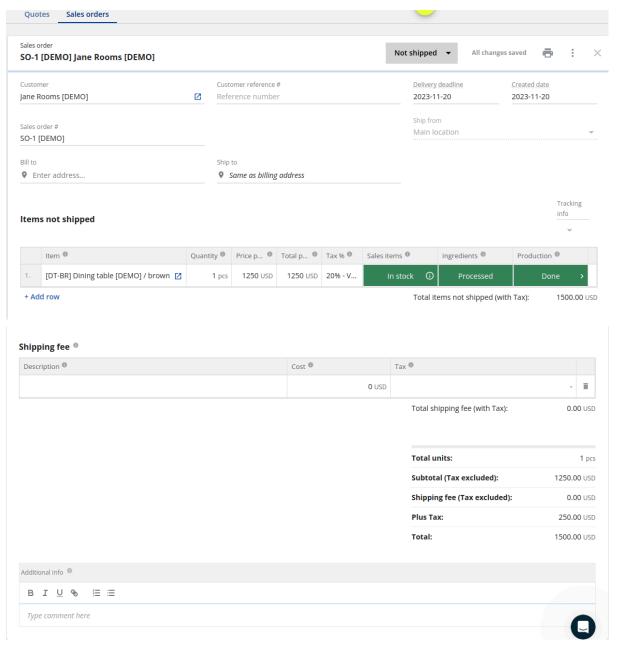
In this module you can keep track of your sales with the fields: Rank, Creation date, Order, Customer, Total order value, Delivery date, Sales items, Ingredients, Production and Delivery status.

When an order is fully delivered, this one will show in the done orders, a list of orders that are delivered or packed.

This is the window that shows the done sale orders:

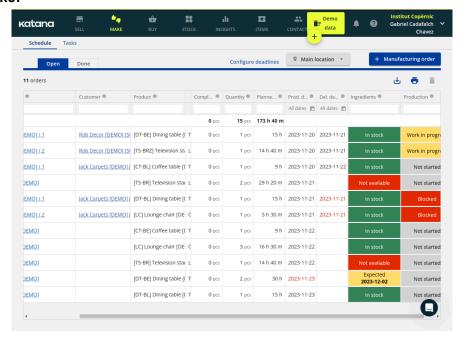


The user 'User' or Owner (the one that created the account of the ERP) can change the values of these fields int this screen that shows when you click on the order:



If you click on the add row label, it will show another row in the items not shipped, in which you can search or create an item to this specific sale. If you want to delete the row you can click on the 'more options' button next to the production status button to show the delete option.

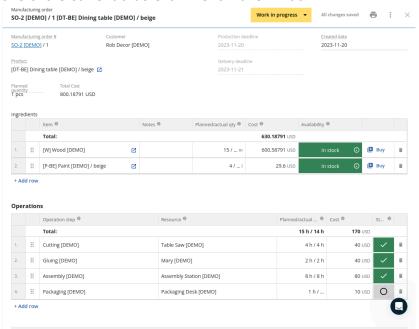
Make:



This module is composed of two parts: Schedule and Tasks.

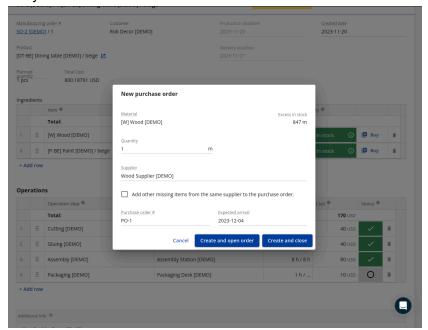
Schedule shows a table of the current fields: Rank, Order, Customer, Product, Category of the products, Completed quantity, Quantity, Planned production time, Production deadline, Delivery deadline, Ingredients and Production status.

If you click on one of the current orders it will show this window:



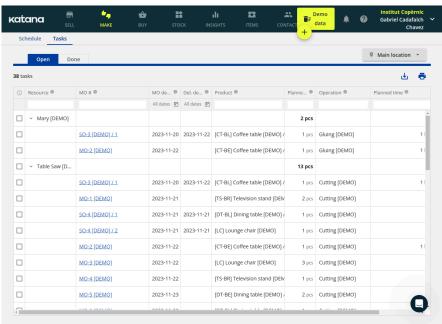
You can edit the next fields: Notes, Planned/Actual quantity, Cost, Availability, Operation step, Resource, Planned/Actual time, Cost and Status.

If you click the 'Buy' button it will show this window:



This window is to order a new import of the said ingredient and you can modify the fields: Quantity, Supplier, Purchase order and Expected arrival date.

The Task part in this module shows this window:



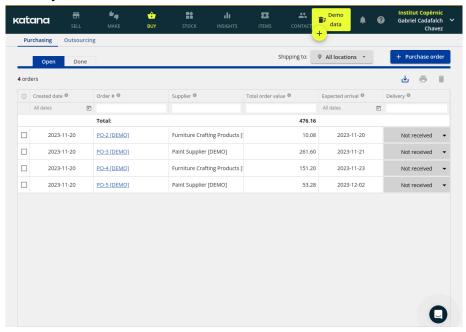
This table shows the current fields: Resource (Person or Working station) assigned to the production operation, Manufacturing order number, Manufacturing order production deadline, Delivery deadline, Product, Planned quantity, Operation, Planned time and Status. To add a row in this table, is inside the Operations part of the order inside the schedule table.

Buy:

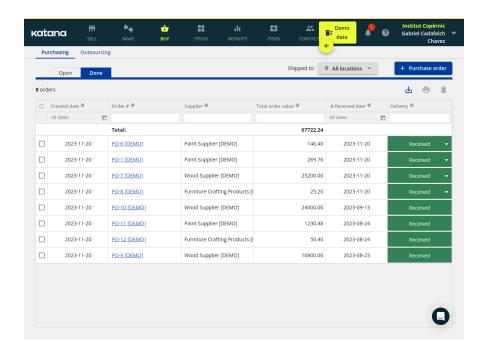
This Module is to manage the Supplier orders, the purchasing table shows two orders: Open and Done.

The 'Open' view:

Shows a table with the fields: Created date, Order, Supplier, Total order value, Expected arrival and Delivery status.



When you change the delivery status to received, then this order moves to the Done view. The 'Done' view shows a table with the fields: Created date, Order, Supplier, Total order value, Received date and Delivery status. If you change back the Delivery status to not received, it moves back to the 'Open' view.

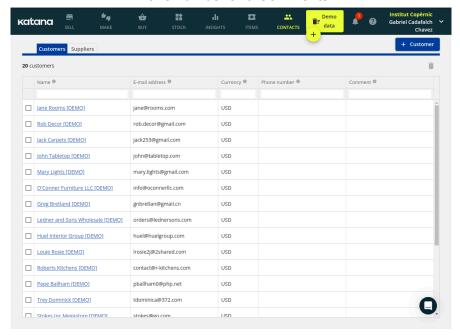


Contacts:

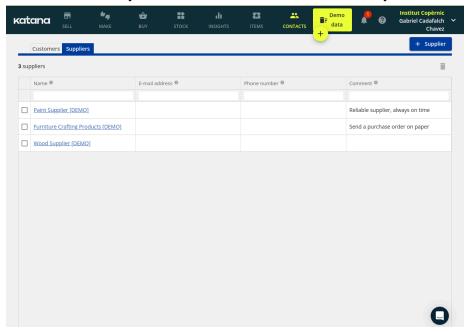
The module Contacts is divided in two different tables: Customers and Suppliers.

In the table 'Customers' is shown a table with these fields: Name, E-mail address, Currency,

Phone number and Comments.



The Suppliers table is basically the same field but without the currency field.



And in both views there is a button to add a new Customer or Supplier Respectively.

5. 3 ERP Tryton investigated (Alex García)

ERP Name	Tryton
URL	https://www.tryton.org/
Development company	Tryton Foundation
Launch date	2008
Development country	Belgium
Licence	GNU
Platforms	All
Online	Yes
Actual version	7.0
Development language	Python
Technical requirements	O.S Database Server Python Libraries Web browser
CRM included	Yes
Free	Yes

5.3.1 Functionalities

- Customer and Supplier Management: Allows you to manage customer and supplier information, including contacts, transaction histories, invoicing information, etc.
- **Inventory Management:** Facilitates tracking and control of inventory levels, warehouse management, stock control, among others.
- **Sales and Purchasing Management:** Helps in the management of sales orders, quotations, invoicing, purchase orders, payment tracking, etc.
- **Accounting:** Includes accounting functionalities such as account management, accounting entries, bank reconciliations, financial reports, etc.
- **Project Management:** Allows planning, monitoring and control of projects, resource allocation, cost tracking, among others.
- **Production Management:** Helps in the planning and control of production, management of production orders, quality control, process monitoring, etc.
- **Human Resources Management:** Functionalities to manage employee information, payroll, absences, evaluations, among other aspects related to human resources.

- **CRM (Customer Relationship Management):** Allows the management of sales opportunities, customer tracking, interaction history, etc.
- **Personalisation and Adaptability:** Tryton is highly configurable and allows its functionalities to be adapted to the specific needs of each company.
- Security and Access Control: Provides options to control user access, roles and permissions to maintain data security.

5.3.2 Characteristics

- It is open source with GNU license
- Is multiplatform
- Has an intuitive user interface.
- Security
- Technical support
- You can manage the modules

5.3.3 Demo screens

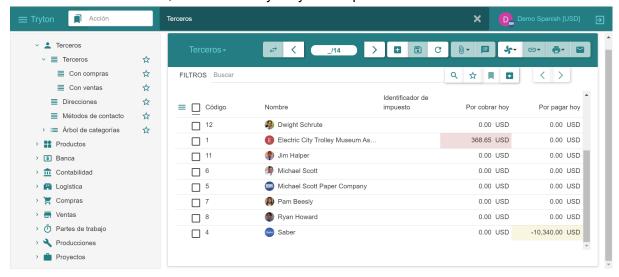
Layout

To begin with we have a fairly simple interface, as the only thing that shows us the modules on the left side.

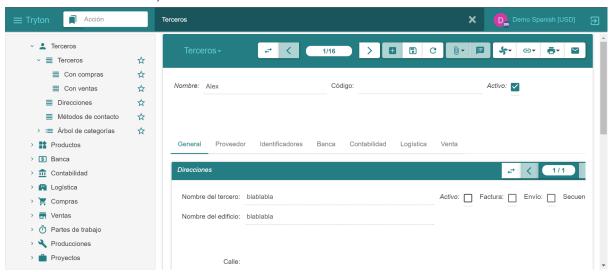


Users

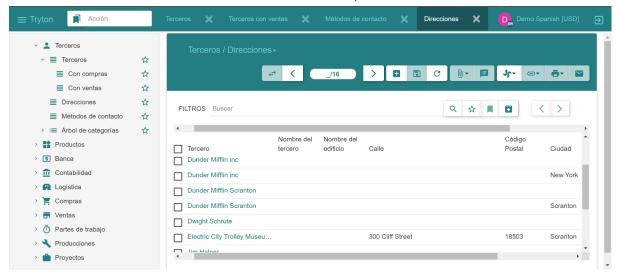
We can see all the users, and the money they have spent or are in debt.



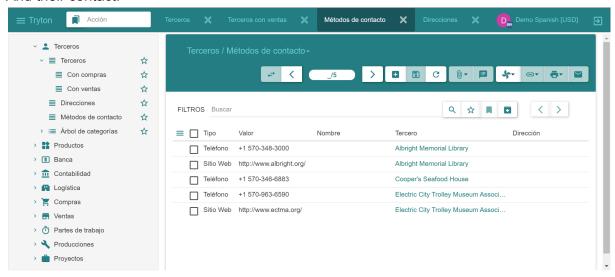
We can add a new user, in the + button:



We can also look at more information about the users, such as their address.

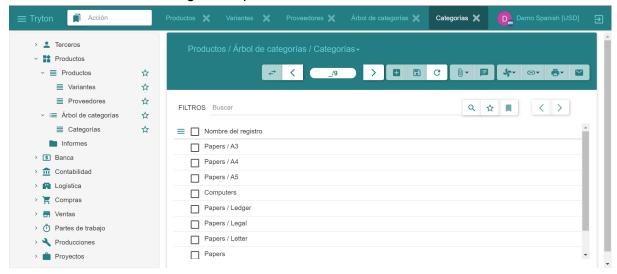


And their contact.

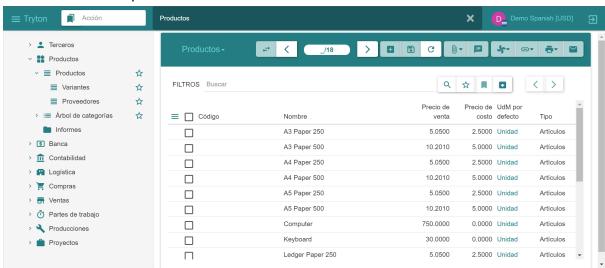


Products

We can obtain a list of all registered products.

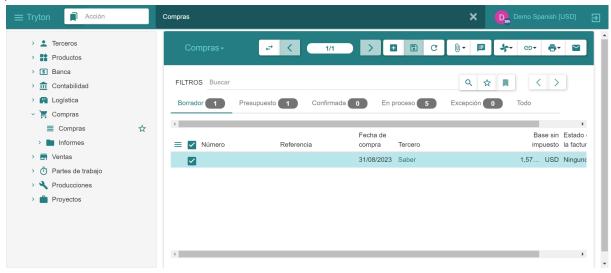


And also a list of all products with the units ordered and their cost.



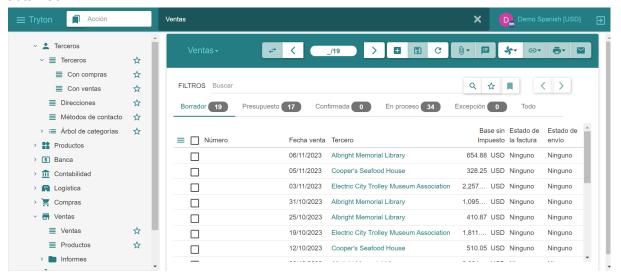
Purchases

In the sales module we can see the user who has made a purchase and the date of the purchase:



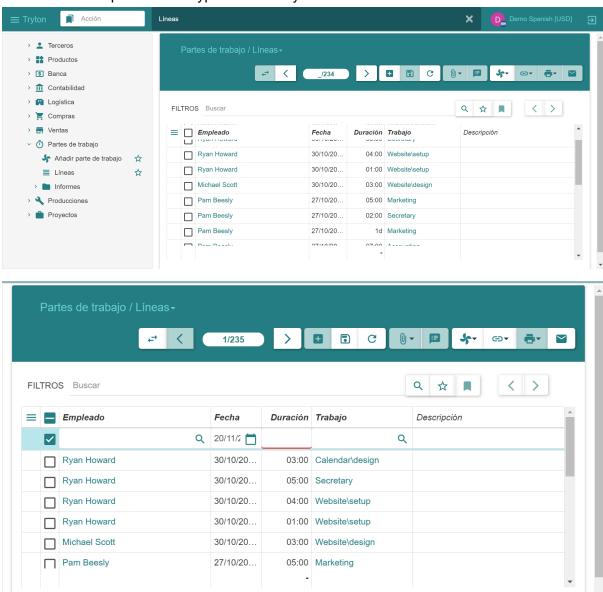
Sales

In the sales module we can see all the sales made, the date, the seller and the money obtained:



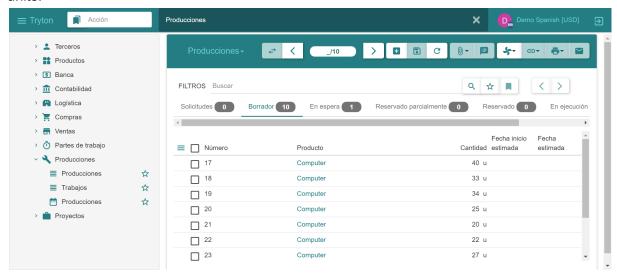
Parts of work

In the work reports module, we can see the reports and their employees, the date, the duration of the report and the type of task they have done.

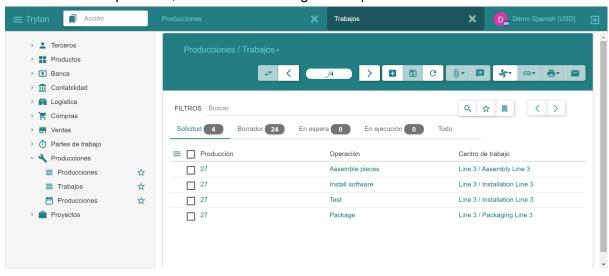


Productions

In the production module we can see the products that have been produced and also their units.

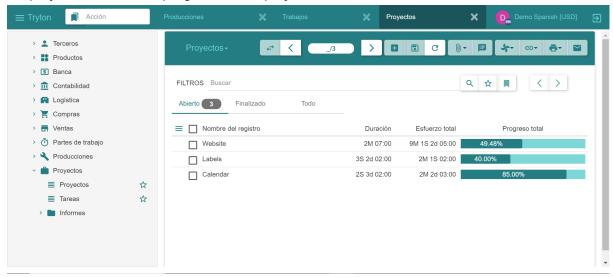


In addition to the products, we can also see logs of the production work.

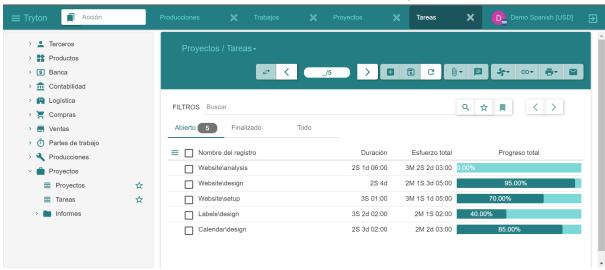


Projects

In the projects module we can see all the projects started, their duration, the time spent on the project and the total progress of the project.



The module also contains a section to view tasks and their progress.



Non-functional requirements

RN01: It must be functional with any web browser

RN02: Interface with HTML5 + CSS/Bootstrap

RN03: Database with MySQL

RN04: Manage HTTP request and response with SpringBoot

RN05: The code must be clear

RN06: Language interface (Multi Language)

Functional requirements

User Management

RF01: Register:

The user can register in the ERP.

RF02: Login:

The user can login into the ERP with her respective role.

RF03: Delete user

Delete from the ERP completely.

RF04: View alumni list

Obtains a list with all the alumni.

RF05: Select user

Read's user profile.

RF06: Filters

Filter the list by degree.

RF07: Search user by nom/surname

A search bar to search for concrete alumni.

RF08: Order by parameter

Order the list by marks, etc.

Profile Management

RF09: Edit user profile

Can edit the user info.

RF10: Edit alumni mark

Allows to modify the alumni mark.

Forum Management

RF11: Create forum post

Creates a post in the forum.

RF12: **Delete post**

Delete a post from the forum.

RF13 Edit post

Allows to edit a post.

RF14: View posts

You get a view of all the posts.

RF15: Select post

Enter to a post.

RF16: Post search

A post can be searched by username.

Announcement Management

RF17: Send emails

An email is sent to all users.

Role management

RF18: List roles

Obtains a list of all the roles.

RF19: Check/uncheck roles to users

Giving/removing a user's role.

RF20: Check/uncheck roles to modules

Gives permission to access the modules.

Stats Module

RF21: Stats

Obtain a bar chart with the percentage of alumni currently working.

Actors

Alumni
It's the "ex-student". Can edit some of their information and make posts.
RF01 RF02 RF09 RF11 RF12 RF13 RF14 RF15

Head master
It's the "head of studies". Can do almost anything.
RF01 RF02 RF03 RF04 RF05 RF06 RF07
RF08 RF09 RF10 RF11 RF12 RF13 RF14 RF15 RF16 RF16

Admin
Can do everything.
RF01 RF02 RF03

DE0.4			
RF04			
RF05			
RF06			
RF07			
RF08			
RF09			
RF10			
RF11			
RF12			
RF13			
RF14			
RF15			
RF16			
RF17			
RF18			
RF19			
RF20			
RF21			

Mockups

On startup, a basic login will appear asking for the user's email address and password. In case the user does not have an account, he/she will be able to register.

COPERNIC ALUMNI



In the registration form, the user will be asked for their email address, their name, surname, telephone number, their linkedin, their studies and their current employment status.

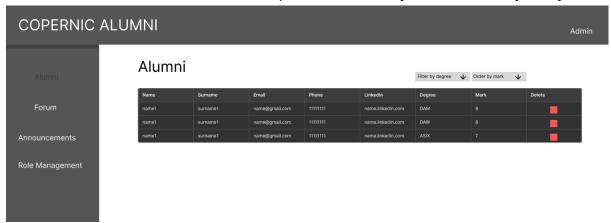
COPERNIC ALUMNI



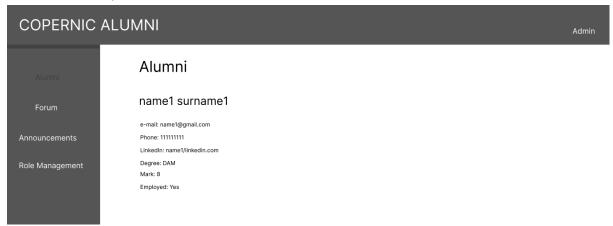
This is the main menu, where we will simply see the modules on the left side. And at the top, we will see the name of the user, where if we click we will be able to go to our profile.



In the Alumni module, you can see a list of all alumni. If the user has permissions, it will be able to delete records. It is also possible to sort by mark or filter by study.



If clicked a register, you will be able to view its profile in a more comprehensive way. If the user has permissions, he will be able to edit some fields.



In the forum module, we will see all the posts created with their title and author, where clicking will show the post.

If the user has permissions, he/she can delete the post.

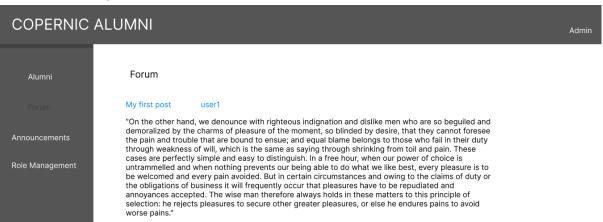
In the "create post" button you can create a post as its name indicates, and you can also search for a post using the search bar.



To create a post, all you have to do is enter the title, the content, and hit the send post button.



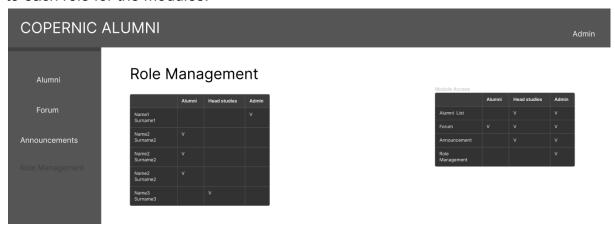
If we click on a post, we will be able to see all its content:



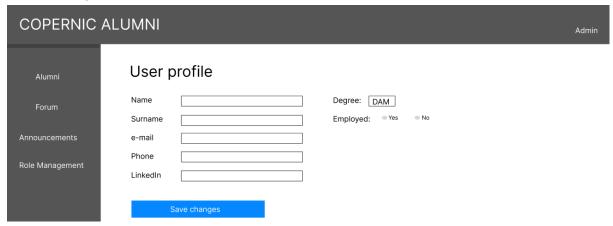
In the announcement module, the head master can automatically send an email to all alumni.



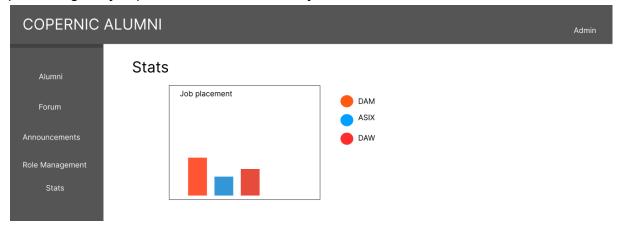
In the role manager, the administrator can assign a role to a user, and assign access to each role for the modules.



In the user profile, the user's information can be edited.



In the statistics module, the headmaster will be able to obtain a graph with the percentage of job placement for each study.

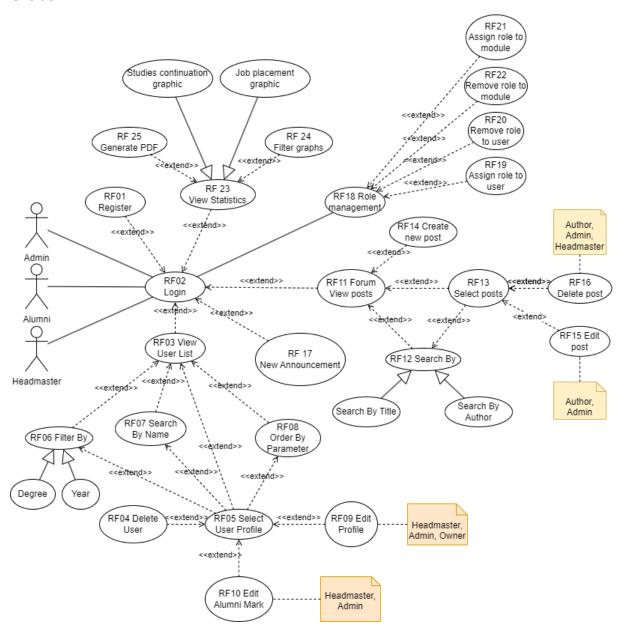


Planning of the implementation cost

Functionality	Cost
RF01	M
RF02	S
RF03	S
RF04	S
RF05	S
RF06	M
RF07	M
RF08	M
RF09	M
RF10	M
RF11	M
RF12	M
RF13	M
RF14	M
RF15	S
RF16	M
RF17	L
RF18	S
RF19	L
RF20	L
RF21	M

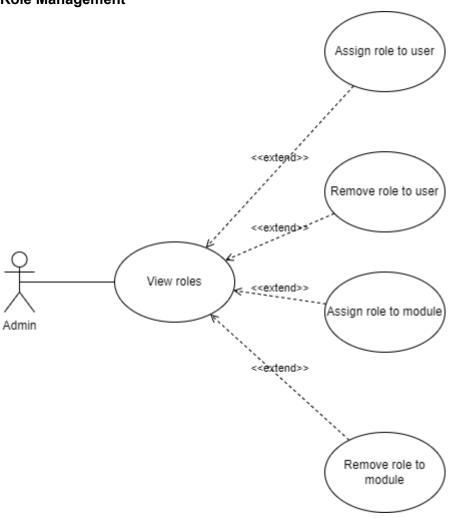
Diagram case

Global

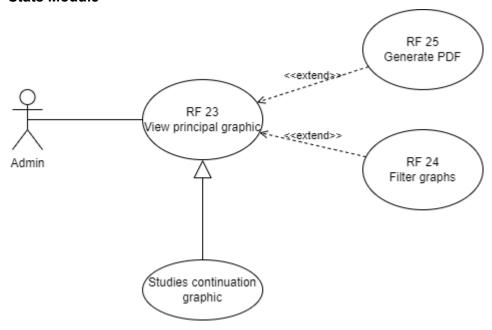


By modules

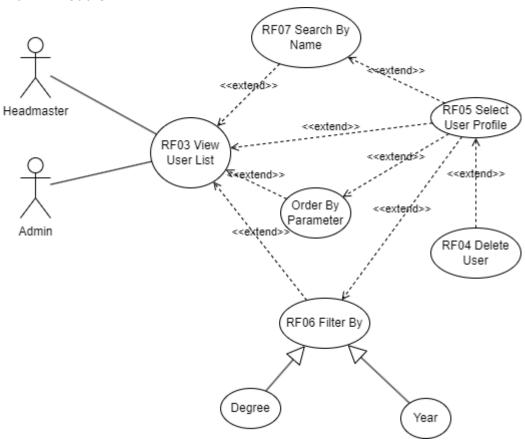
Role Management



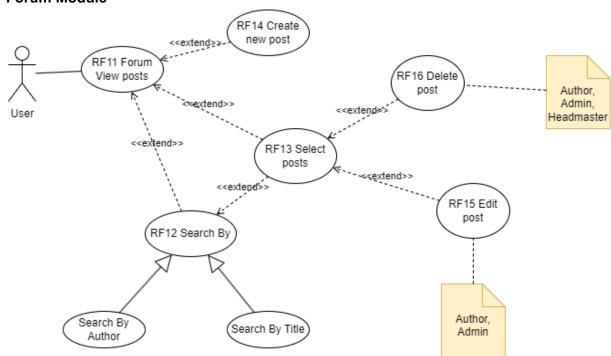
Stats Module



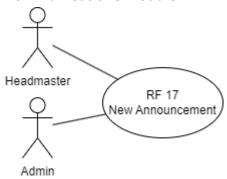
Alumni Module



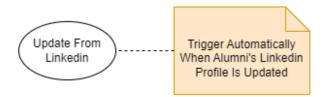
Forum Module

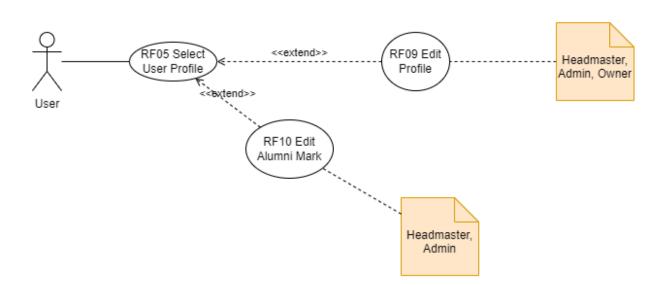


Communications Module



User Profile





Requirement Detail

ALUMNI MANAGEMENT MODULE

RF01	Register	
Description:	Allows the user to register a private account into the platform linking it to the corporate account of the LDAP	
Actors:	Student	
Pre:	Having tried to login with corporate account on function RF02	
Normal Flow		Alternative Flow
 Enter the required input. The system validates the credentials with the LDAP. The user is created. 		If the input is not valid, it should notify the user. If the imputed e-mail is not a personal address, it should notify the user.
Post:	The user is redirected to RF02	

RF02	Login		
Description:	Allows the platform to check if the user is registered on the LDAP with a corporate account, and to login into the platform with the private account		
Actors:	All users		
Pre:	Having a corporate account registered on the authentication server "Ldap" or an account created with the private account		
Normal Flow	Flow Alternative Flow		
1. Enter the email and the password. 2. The system validates the credentials. If it's a personal address, it will check if it's registered under any user and allow the user to enter the application.		1.1. If the input is not a valid email or password, it should notify the user. 2.1. If the imputed mail is a corporate mail, it will check if it's registered on the LDAP. 2.1.1. If it's an already registered mail, the user will be asked to use a valid address. 2.1.2. If it's not a registered mail, it will jump to RF01.	
Post:	The user enters into the platform		

RF03	View Student	
Description:	Shows a table with all the alumni	
Actors:	Headmaster and Admin	
Pre:	Be logged as headmaster or admin	
Normal Flow		Alternative Flow
Enter into the alumni module.		
Post:	Views all the alumni	

RF04	Delete user	
Description:	Allows to delete a user from the database	
Actors:	Headmaster, Admin	
Pre:	Be logged as a headmaster or admin. The user should be on RF03	
Normal Flow		Alternative Flow
 Select an alumni from the list. Click on the delete button. Click the 'continue' button. The user would be deleted. 		3.1 Click cancel button and return to step 1.
Post:	Show the user list RF03 without the deleted user	

RF05	Select user (Read user's profile)	
Description:	Shows the profile of the selected user	
Actors:	Headmaster and Admin	
Pre:	Be logged as a headmaster or admin. The user should be on RF03	
Normal Flow		Alternative Flow
Click on the selected user to see it's profile		
Post:	Post: Show on screen the information of the selected user	

RF06	Filters (Degree, Mark, Curs, etc.)		
Description:	Filters the list of RF04 by the selected filter		
Actors:	Headmaster and Admin		
Pre:	RF04 View Student		
Normal Flow Alternative Flow		Alternative Flow	
Click on filter the alumni Select the filter (Degree, Mark,)		1.1 Don't select anything and just view all the alumni	
Post:	Views the alumni that pass the selected filter		

RF07	Search user by name/surname	
Description:	Tool to search for a specific user	
Actors:	Headmaster and Admin	
Pre:	RF04 View Student	
Normal Flow		Alternative Flow
 Write the name or surname of the user to be searched. It finds the searched user/s in the database. 		2.1 It doesn't find the searched user in the database.
Post:	Shows in the screen the result of the search	

RF08	Order by parameter	
Description:	Tool to order the list to see better	
Actors:	Headmaster, Admin	
Pre:	RF04 View Student	
Normal Flow		Alternative Flow
Select the parameter for order.		
Post:	Shows the alumni ordered by the selected parameter	

PROFILE MANAGEMENT MODULE

RF09	Edit user profile	
Description:	The user can edit his own profile	
Actors:	All users	
Pre:	RF05 Select User Profile	
Normal Flow		Alternative Flow
wants		1.1 Cancel Button and return to RF05
Post:	Shows the User Profile with	the updated fields

RF10	Edit alumni average grade	
Description:	Allows to enter the average grade of the alumni	
Actors:	Headmaster, Admin	
Pre:	Have selected an alumni	
Normal Flow		Alternative Flow
1. Enter the	Enter the average grade	
Post:	The profile now shows the average grade of the degree	

FORUM MANAGEMENT MODULE

RF11	View Forum	
Description:	The user visualizes the forum	
Actors:	All users	
Pre:	The user has been logged in	
Normal Flow		Alternative Flow
Left-click on the Forum button.		
Post:	The forum will be loaded and if there are posts, they will be shown	

RF12	Search Post	
Description:	Allows the user to search a post by it's data	
Actors:	All users	
Pre:	The user must be logged in, and in RF11	
Normal Flow		Alternative Flow
1. Write the desired input on the search bar. 2. Press enter to begin the search. 3. The system will search matches with the desired input. 4. It will show the posts containing the desired input.		3.1. If there are no matches, the search result will be shown as empty, with the message "not found" showing.
Post: The displayed posts will be		selectable

RF13	Select Post (read)	
Description:	The user will be able of select a post for its read, modification or deletion	
Actors:	All users	
Pre:	The user must be logged in, and in RF11	
Normal Flow		Alternative Flow
1. Left-click on the desired post.		
Post:	The post opens	

RF14	Create Post	
Description:	Allows the user to create a new post	
Actors:	All users	
Pre:	The user must be logged in, and in RF11	
Normal Flow	low Alternative Flow	
 Click on the "Create New Post" button. Add a title for the post (max 40 chr). Add the body of the post. (max 400 chr) Press the "Post" button to post the post. 		4.1. The post will not post if the title or body of the post is empty.
Post:	The user will return to the Forum RF11, showing the last post posted	

RF15	Edit Post	
Description:	Allows the user do modify a existing post	
Actors:	All users	
Pre:	The user must be logged in as the author of the post or an administrator role. The user must have selected a post RF13	
Normal Flow		Alternative Flow
 The user must click the edit post button. Edit any of the data to change. Left-click on "save changes" to save the edited post. 		 Canceling this action will change nothing on the post. If the user doesn't edit anything, the post will not change.
Post:	The user returns to the selected post, now edited	

RF16	Delete Post		
Description:	Allows the user to delete an existing post		
Actors:	All users	All users	
Pre:	The user must be logged in as the author of the post or an administrator role. The user must have selected a post RF13		
Normal Flow		Alternative Flow	
1. Press on "savedited post.	ve changes" to save the	Canceling this action will change nothing	
		on the post. 2. If the user doesn't edit anything, the post will not change.	

ANNOUNCEMENTS MODULE

RF17	New Announcement	
Description:	Allows the headmaster to send messages to all the registered students on the platform	
Actors:	Headmaster	
Pre:	Be logged in as Headmaster	
Normal Flow		Alternative Flow
 Left-click on the Announcements button. Select a title for the message. Write the body of the message. Press the "send the message" button. 		1.2. Clicking on any other button will delete the message.
Post:	The message will be send to all registered students	

ROLE MANAGEMENT MODULE

RF18	View roles	
Description:	The administrator can manage the roles of the users and modules	
Actors:	Administrator	
Pre:	Be logged as admin	
Regular Flow		Alternative Flow
1. Left-click on t	Left-click on the Roles button.	
Post:	Visualizes the roles management module	

RF19	Assign role to user	
Description:	The administrator can remove roles from users	
Actors:	Administrator	
Pre:	Be logged as admin	
Regular Flow		Alternative Flow
 Selects the desired user. Check the user with the corresponding role. 		
Post:	Updates the user with the desired role	

RF20	Remove role to user	
Description:	The administrator can assign roles to users	
Actors:	Administrator	
Pre:	Be logged as admin	
Regular Flow		Alternative Flow
Selects the desired user. Uncheck the user with the corresponding role.		
Post:	Updates the user with the desired role	

RF21	Assign role to module	
Description:	Give access permissions from a role to a module	
Actors:	Administrator	
Pre:	Be logged as admin	
Regular Flow		Alternative Flow
Enter into the roles module. Check a module with the corresponding role.		
Post:	Updates the module with the desired role	

RF22	Remove role to module	
Description:	Remove access permissions from a role to a module	
Actors:	Administrator	
Pre:	Be logged as admin	
Regular Flow		Alternative Flow
Enter into the roles module. Uncheck a module of the corresponding role.		
Post:	Updates the module without the desired role	

STATISTICS MODULE

RF23	View graphics	
Description:	The headmaster can enter the statistics module	
Actors:	Headmaster	
Pre:	Be logged as a headmaster	
Normal Flow		Alternative Flow
1. Enter the stats module.		
Post:	All the graphs and statistics are shown	

RF24	Filter graphs	
Description:	The headmaster can filter by determined options	
Actors:	Headmaster	
Pre:	Have entered the View Graphics (RF23)	
Normal Flow		Alternative Flow
1. Click on one of the options.		
Post:	The filtered graph is shown	

RF25	Generate PDF	
Description:	The headmaster can generate a PDF of the graphic	
Actors:	Headmaster	
Pre:	Have entered the View Graphics (RF23)	
Normal Flow:		Alternative Flow:
Click on the generate PDF button. A PDF file will be created and downloaded.		User cancels the download. 1. User shall restart the download.
Post:	Obtains the PDF	

Navigations Screens

Admin:

https://www.figma.com/proto/S5Gh5D0VYwVfuC30itvghs/ERP-Alumni?type=design&node-id=0-1&t=olQdKlp4lKAvdk0l-0&scaling=min-zoom&starting-point-node-id=56%3A1340&show-proto-sidebar=1

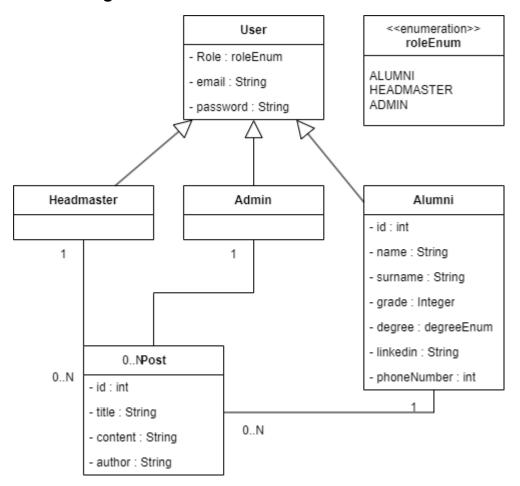
Headmaster:

https://www.figma.com/proto/S5Gh5D0VYwVfuC30itvghs/ERP-Alumni?type=design&node-id=0-1&t=olQdKlp4lKAvdk0l-0&scaling=min-zoom&starting-point-node-id=46%3A361&show-proto-sidebar=1

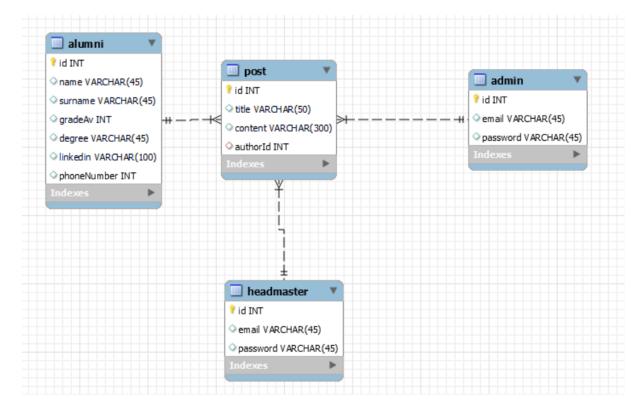
Alumni:

https://www.figma.com/proto/S5Gh5D0VYwVfuC30itvghs/ERP-Alumni?type=design&node-id=0-1&t=olQdKlp4lKAvdk0l-0&scaling=min-zoom&starting-point-node-id=52%3A604&show-proto-sidebar=1

Class Diagram



Database Model



Architecture Diagram

View

Login

Register

AlumniModule

ForumModule

AnnouncementModule

StatsModule

RoleManagementModule

Controller

LoginAndRegisterController

AlumniModuleController

ForumModuleController

AnnouncementModuleController

StatsModuleController

RoleManagementModuleController

Service

JobPlacementGraphic

GeneratePDF

SendEmail

ManageAlumni

SecurityConfig

DAO

AlumniDAO

PostDAO

AdminDAO

HeadmasterDAO

Model

User

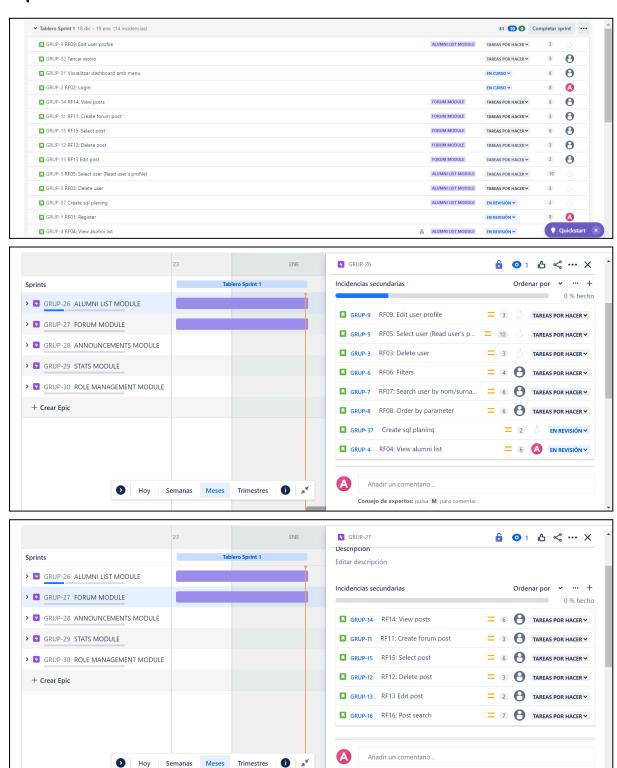
Alumni

Headmaster

Admin

Post

Sprint 1



Consejo de expertos: pulsa M para comentar

Daily Stand Up meeting & Retrospective meeting:

<u>Daily Stand Up meeting & Retrospective meeting</u> <u>Grup3ERPAlumni - Agile board - Jira (atlassian.net)</u>

https://gitlab.com/grup-3-erp-alumni/erp-alumni.git