

Project Report IF3E
Galactic Commerce Management System



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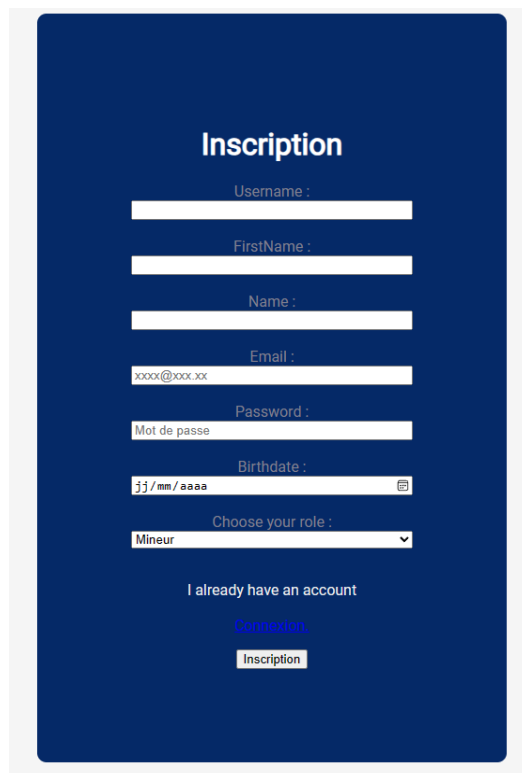
Introduction

We have decided to carry out the project Galactic Management Commerce System. The main goal of this project is to create an online space quest video game. The player must complete missions to level up, buy new ships and teammates. We used the following languages : Php, SQL, HTML and CSS. We divided the project into different parts and each worked on his own pages, bringing everything together at the end. We did this so that each of us would be involved in all the languages we needed to use, and that none of us would focus on just one. Jules designed the login, registration and profile pages, Tom concentrated on the mission pages and Francisco on the shop pages. We also helped each other out if one of us had a problem.

We'll start by explaining the game's principle and functionalities, then move on to an explanation of how our website works.. We'll conclude with an assessment, explaining our difficulties and what we've learned from the project. Finally, in the annex you'll find both required database diagrams.

The sign up page

The beginning of the project therefore focused on the registration page. Indeed, this is a page that every user has to visit. We settled on a fairly simple design, with a form containing the player's main information. This page is linked to a phantom php page which takes care of collecting all the user's information and placing it in the right place in the database. It also has the role of allocating all basic resources to a new player, level 1 ship and basic equipment, which is calculated according to the user's choice of role. A miner, for example, will have a healer as his basic crew member. Resources such as gold and metal are all set to 0, and the level 1 player must carry out missions to increase his resources.



Inscription

Username :

FirstName :

Name :

Email :

Password :

Birthdate :

Choose your role :

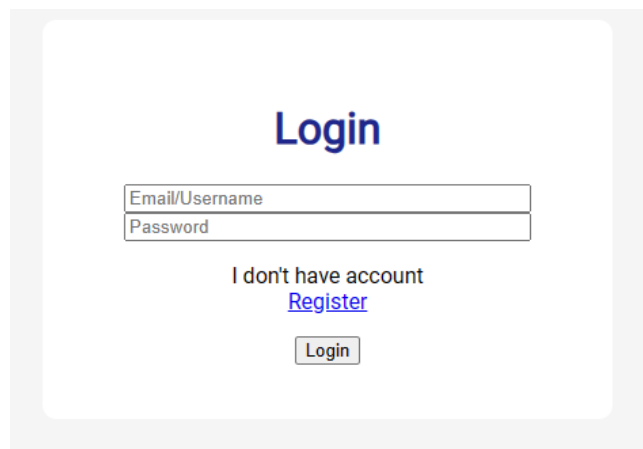
[I already have an account](#)

[Connexion](#)

Data received in the form was pretty easy to deal with, only the password took us a while. We decided to opt for a secure password, to protect our players and their data. When the password is retrieved, it is encrypted using the "SHA2(?,512)" function for optimum security.

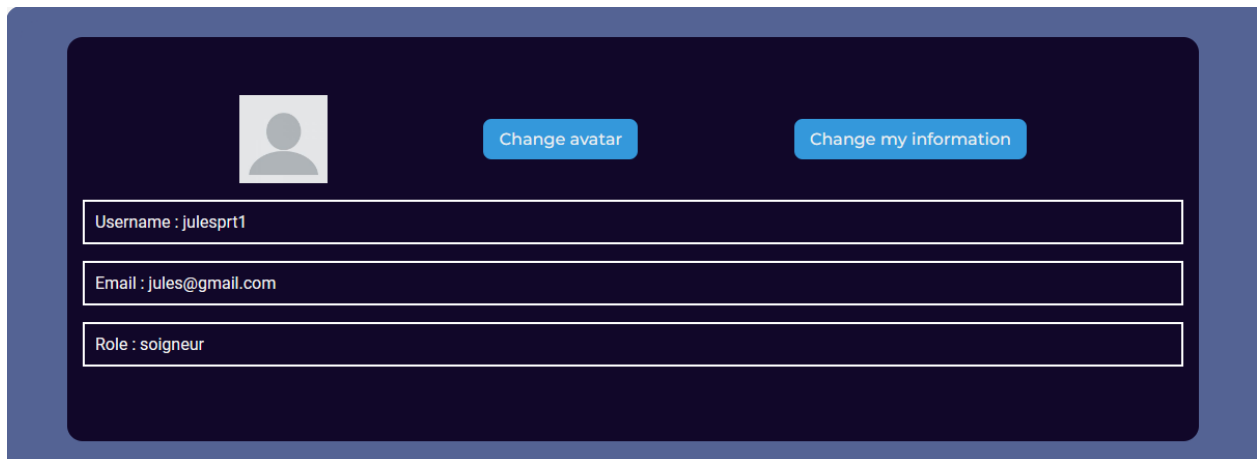
The login page


The second page on which Jules concentrated was the login page. Indeed, this page is also essential to the site for all users who wish to play the game several times. It also has a very simplistic design, but in keeping with the graphic style of our entire site. This php page checks the information filled in by the user with queries like SELECT, and if the entered information exists AND is correct, then the page gives access to the user's profile. The password entered by the user when logging in is also encrypted and is checked against the one contained in the DB when the username or email exists. During login and registration, the \$_SESSION session variables are created before directing the user to the profile page. These variables will be used throughout the rest of the site.

A screenshot of a web page titled "Login" in a large, bold, blue font. Below the title are two input fields: the first is labeled "Email/Username" and the second is labeled "Password". Below these fields, the text "I don't have account" is displayed, followed by a blue, underlined link "Register". At the bottom, there is a button labeled "Login". The entire form is centered within a light gray rectangular frame.

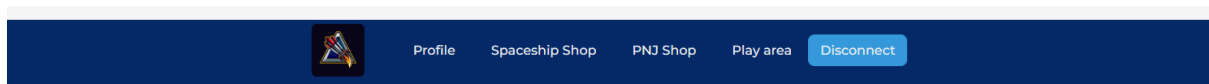
The profile page

The main page that Jules has focused on is the profile page. This page serves as the central hub of the site, allowing the player to view personal information such as their avatar, username, and other details. It also enables them to see their fleet, along with real-time information like their fuel capacity and ship description. Additionally, this page displays the player's teammates and their skills. On the bottom right section of the site, there are details regarding the player's resources, including gold, XP, and their level, which indicate the user's progress within the game.

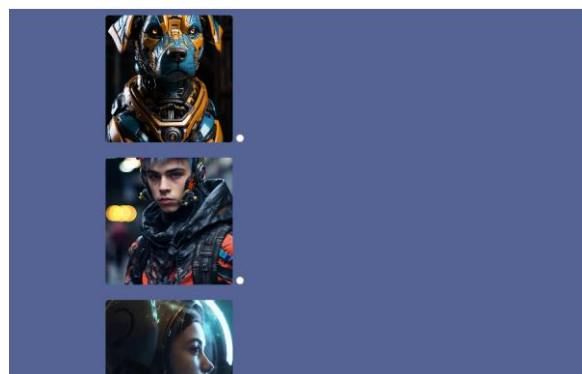
A screenshot of a user profile page. At the top left is a placeholder for an avatar. To its right are two buttons: "Change avatar" and "Change my information". Below these are three input fields: "Username : julesprt1", "Email : jules@gmail.com", and "Role : soigneur".

	Change avatar	Change my information
Username : julesprt1		
Email : jules@gmail.com		
Role : soigneur		

All the data is extracted from our database and mostly retrieved using SQL queries, heavily utilizing the session variable `$_SESSION['id_user']`. This variable helps retrieve information from multiple tables through INNER JOINS. The navigation bar allows the player to move across different game pages, each button directing to a PHP address.



The latest functionalities on this page include the avatar change feature, where the player can click on the button and be redirected to a PHP page named "modifavatar." This page contains a panel of ready-to-use avatars, and upon selecting one, the user's avatar file address is modified.



Furthermore, the user can update their information through the "modify my information" tab. This action redirects them to an HTML page similar to the registration page, where they'll find a form. These details get updated using a PHP pseudo page, which updates the login and profile tables, along with the session variables, notably `$_SESSION['username']`, heavily utilized within the profile.

Update my information :

Username :

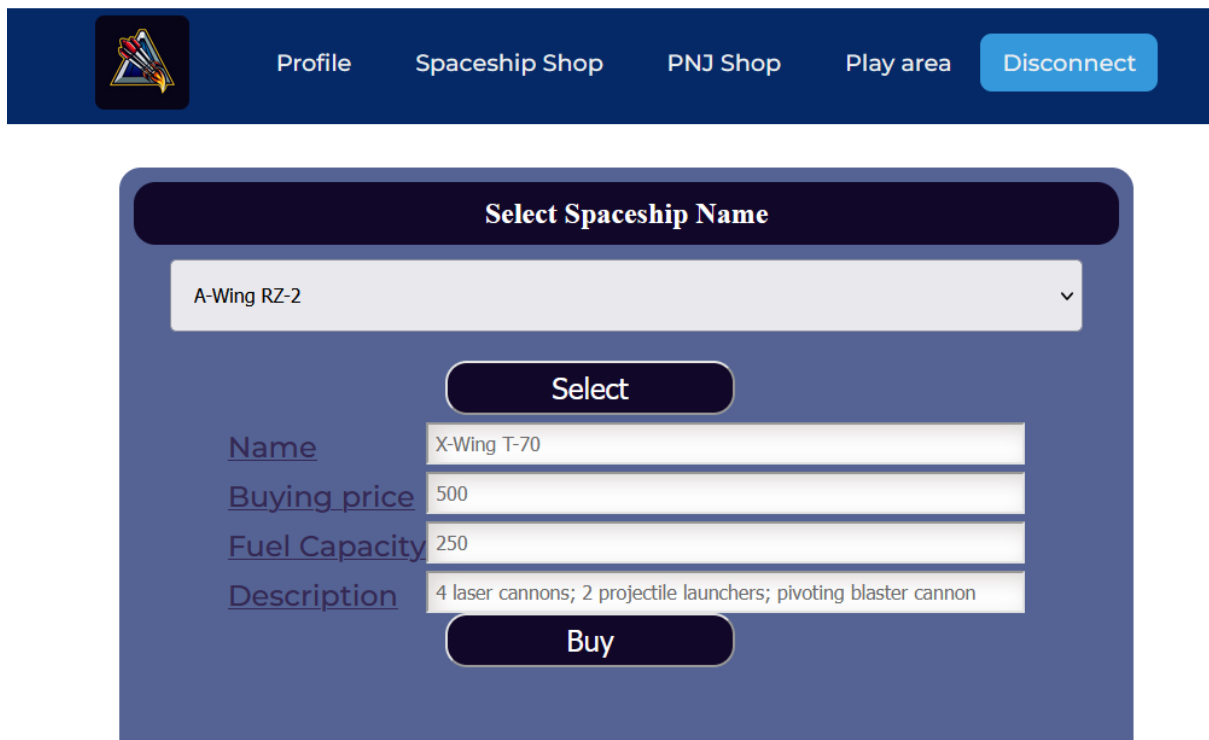
FirstName :

Name :

The shop pages

As previously stated, Francisco mainly focused on creating the shop pages. It started out by creating both the spaceship's and teammates' shops pages by using html and css, then linking the bought objects into the user's team or fleet. The hardest part about the shop was this one because a lot of different information coming for different tables was necessary.

The spaceship's shop



Select Spaceship Name	
A-Wing RZ-2	
<button>Select</button>	
Name	X-Wing T-70
Buying price	500
Fuel Capacity	250
Description	4 laser cannons; 2 projectile launchers; pivoting blaster cannon
<button>Buy</button>	

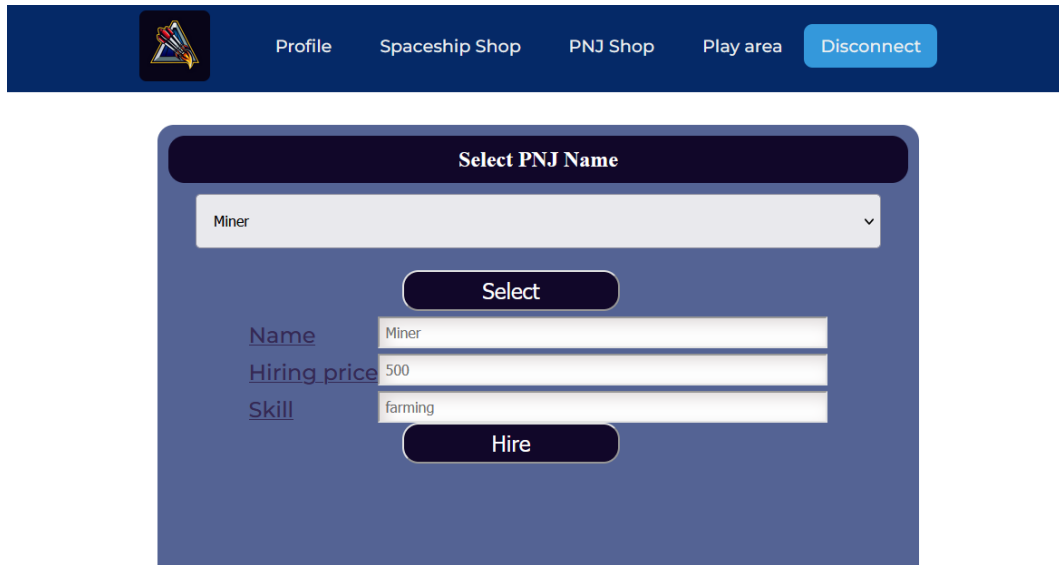
Here in this picture you can see a drop-down menu where the user chooses the spaceship that he wants to know more about. He can choose to either buy it or select another spaceship. If he chooses to buy it the corresponding amount of money will be withdrawn from his gold.

To ensure that the money is deducted from the logged in player the variable `$USER=$_SESSION['username']` contains the username of the user.

After being bought the spaceship will be added to the user's fleet, and therefore can be chosen to complete a mission. A user cannot buy the same spaceship twice. The purchase of new spaceships is mandatory to complete the whole game as some missions require an amount of fuel that is only available with the most expensive ship.

The PNJs shop

On the same principle the PNJ shop will give out all the information about the selected PNJ and if the user wishes to buy it, the program will verify that the user has enough money. If that is the case. This PNJ will join the player's team. Again a player cannot buy the same PNJ twice.



The screenshot shows a web interface for a game. At the top is a dark blue navigation bar with a logo on the left and five links: 'Profile', 'Spaceship Shop', 'PNJ Shop', 'Play area', and 'Disconnect'. The 'PNJ Shop' link is highlighted. Below the navigation bar is a modal window titled 'Select PNJ Name'. Inside this modal, there is a dropdown menu with 'Miner' selected. To the right of the dropdown is a 'Select' button. Below the dropdown, there are three labels: 'Name', 'Hiring price', and 'Skill'. To the right of these labels are three input fields: the first contains 'Miner', the second contains '500', and the third contains 'farming'. Below these input fields is a 'Hire' button.

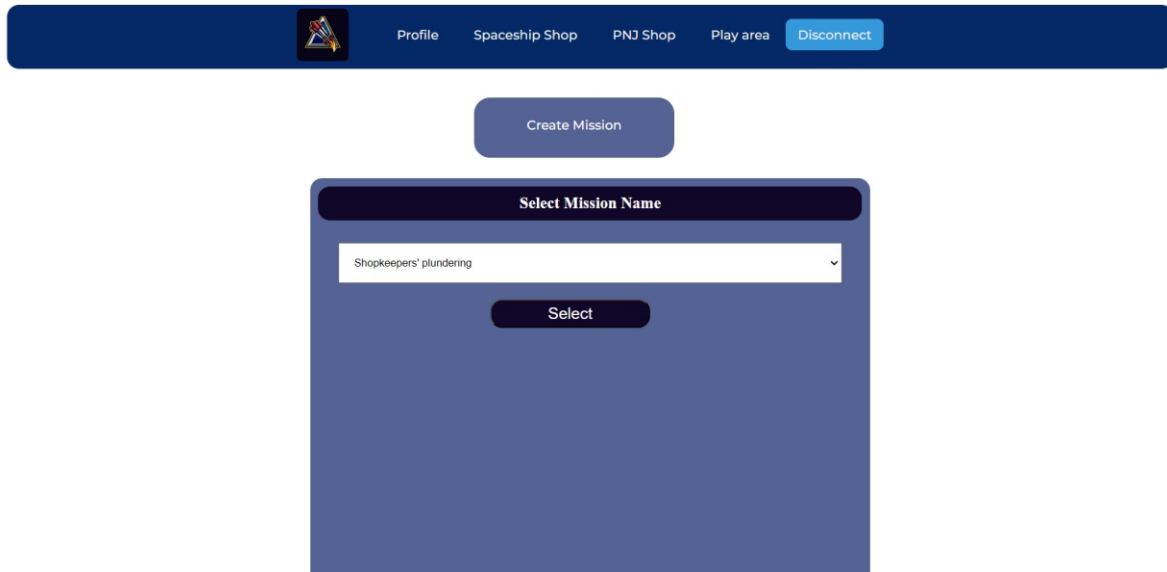
Select PNJ Name	
	Miner
	Select
Name	Miner
Hiring price	500
Skill	farming
	Hire

A possible improvement could be adding more spaceships and PNJs to make the game more realistic.

The play area

As previously stated Tom was in charge of making the “Play Area” which consists of accomplishing missions to gain gold, exp and metal and giving the player the opportunity to create their own mission.

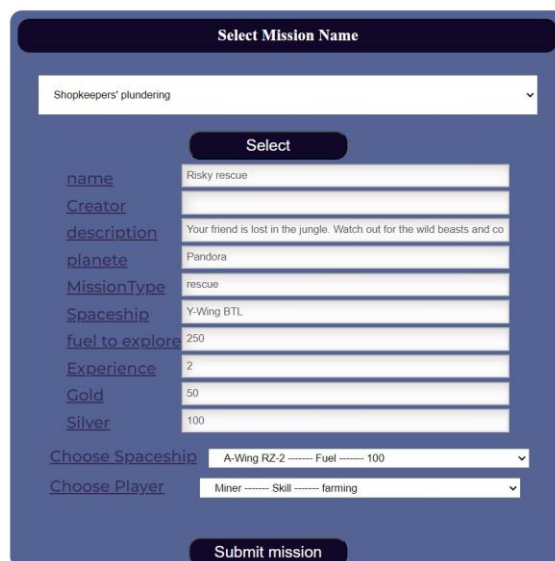
First of all when you enter the game space you will access this page:



The screenshot shows a dark blue header bar with a logo on the left and navigation links: Profile, Spaceship Shop, PNJ Shop, Play area, and a Disconnect button. Below the header is a 'Create Mission' button. The main area is a 'Select Mission Name' dialog box with a dropdown menu showing 'Shopkeepers' plundering' and a 'Select' button.

Mission preview

When you select the mission you want to perform, you get access to the information of the mission in question. Through the page below.



The screenshot shows the 'Mission preview' dialog box. It has a dropdown menu with 'Shopkeepers' plundering' selected. Below it is a 'Select' button. The mission details are displayed in a table-like format with labels on the left and values on the right:

name	Risky rescue
Creator	
description	Your friend is lost in the jungle. Watch out for the wild beasts and co
planete	Pandora
MissionType	rescue
Spaceship	Y-Wing BTL
fuel to explore	250
Experience	2
Gold	50
Silver	100
Choose Spaceship	A-Wing RZ-2 Fuel 100
Choose Player	Miner Skill farming

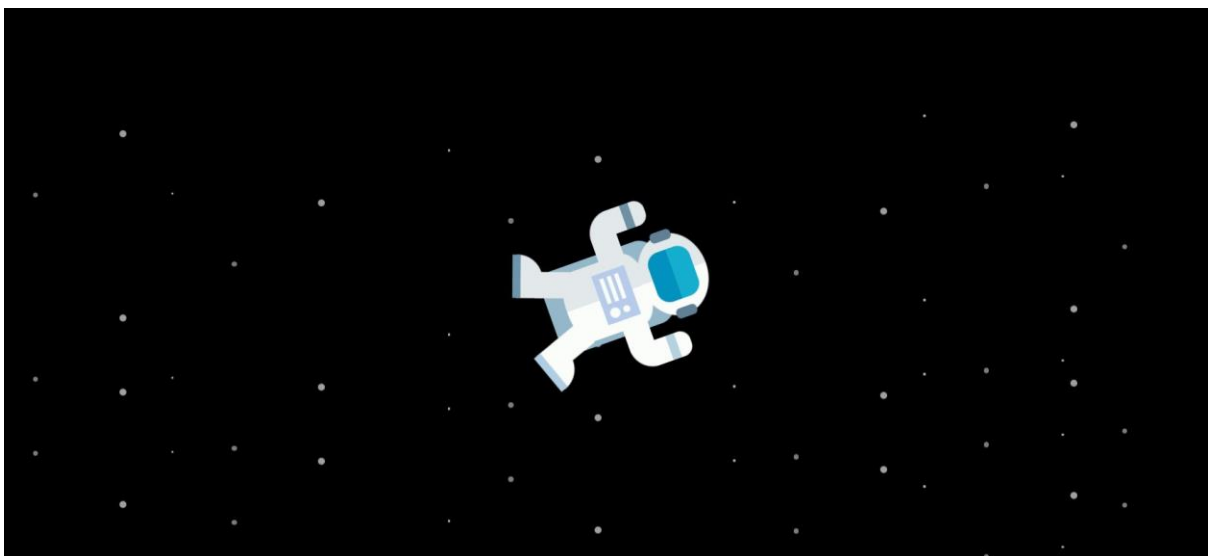
At the bottom is a 'Submit mission' button.

Mission accomplishment

After selecting your mission just click on the button to launch this mission, if you have the right ship and the right character you can carry out your mission. At the end of this one you will be redirected to the game space after 15 seconds


You cannot do this mission for now, Because you don't have the right spaceship or the right crewmate...

Play Area



Mission Creation

In addition if you want to create a mission just click on the create mission button and you get the form below. Then you just have to fill out this form to create the mission. But be careful to create a doable mission otherwise you will not be able to create it

[Profil](#) [Boutique](#) [Espace de Jeu](#) [Se déconnecter](#)

Mission Editor

Name

Mission name

Description

Description

Planete

Tatloine ----- fuel to go ----- 50

Skill

farming

Spaceship

A-Wing RZ-2 ----- fuel capacity ----- 100

Experience

Experience

Gold

Gold

metal

amount of metal

Creation cost

Price : Quantity(EXP+GOLD+Metal)

Create Mission

You cannot create this mission for now, Because mission options are impossible ...

Play Area

Conclusion

Therefore the biggest difficulty we encountered was setting up the image. First, we wanted to store them in the database, but it was impossible to display them again. we tried using URLs and BLOBs, but it was impossible. The solution we found was to store the path of the images in the image files in our folder and to display the image with its folder according to its name. This step allowed us to display the images and with conditions if to change them according to the ship or avatar.

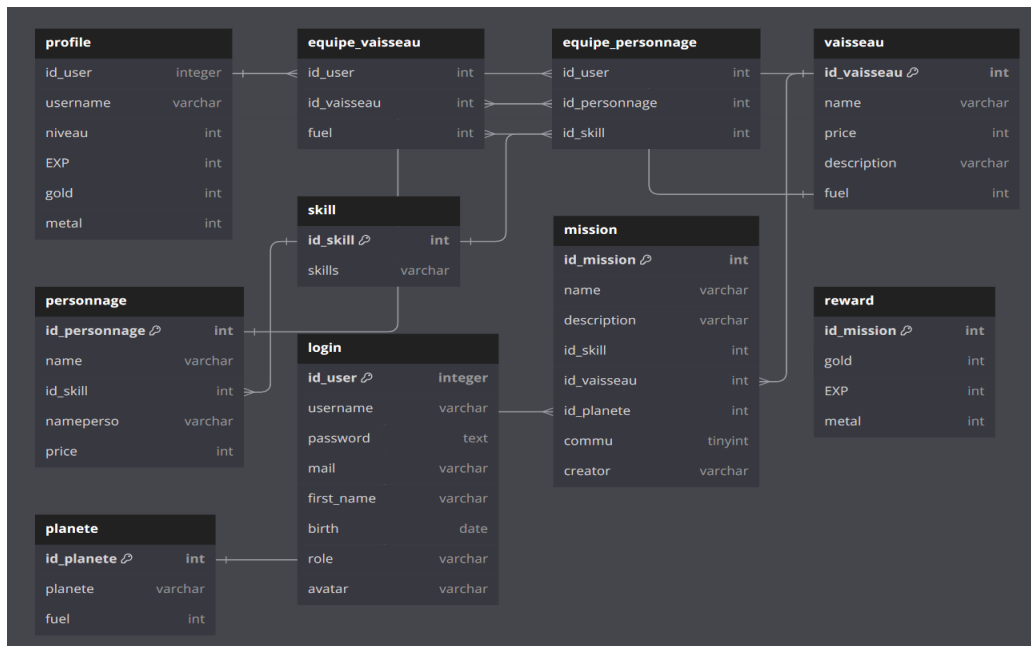
One of the biggest problems that we encountered is when bringing each of our works together, problems appeared because we had, for example, modified on our own the database.

One way to improve our website could be giving out the game to family and friends so that we really have a lot of community missions.

To finish off, this project allowed us to gain knowledge in html and php but also css. Also, working as a team allowed us to really distribute the tasks and we are confident that it allowed us to hand in a better project.

Annex:

Database diagram



Entity-relationship diagram:

