

# *E2Gaming*



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# Version Control

v1.0	<p>In the first version the main idea was to work with the idea of having two locations, one for the gaming area and another for the pub area, so the design of the website implied wanting to separate it in some way so that you could see that difference and that separation between those locations, thus working consistent with that idea.</p> <p>The functionalities of the page were clear but the idea of putting a chat/forum was in doubt</p>
v2.0	<p>In the situation of the Covid-19, the time and the way of working had to be more adaptable to our family situation, our teams, our new lives...</p> <p>In this way we decided to eliminate for practical purposes the area of the pub, since we wanted to focus basically on the functionality of the project and not on the "aesthetic".</p> <p>In the same way we decided to eliminate the idea of the chat/forum because we were sure that the time we were going to have was not going to be adequate to make it perfect.</p> <p>After the reduction of hours of one of us, the school teaching proposed us to eliminate one of the functions that we had, since the hours of project were coming to us without that functional requirement.</p>
v3.0 (Final)	<p>The latest version includes that last feature that we decided to remove for time reduction. It gave us time to implement it and make it perfect.</p>

# Purpose

Our project is based on the creation of a company, dedicated to the world of games and hostelry.

This company is called E2Gaming and consists of two separate premises: the first section is a pub with a gaming theme and a musical environment dedicated to video games and anime, in which e-sports will be broadcast.

The second location is dedicated to the gaming area, which will be composed of 30 last generation consoles and the best PCs in the market at the moment, to offer our customers the possibility to play during the hours they choose at an affordable price. They also have the option to rent the games they want during the days they want at prices of envy.

From the website users have the option of being able to sign up for the tournaments we offer at the venue, but they also have the option of viewing a calendar where they can find out about the broadcasts we make on our projector, whether they are tournaments organized by us or games from the Professional Video Game League.

Another option that the users of the web page have is to submit to a monthly subscription, in which you become a member of the place and you can access to different types of discounts, raffles and other offers of interest.

Finally, of the things that can do all kinds of registered visitors to our website, is to book (day, time, number of people and console), and rent a game (return date and game).

## Test Data

Admin:

- User: Yaru
- Password: admin123

Member:

- User: EVICsins
- Password: member123

User:

- User: CPaRcloN
- Password: user123

# Functional requirements

- **RF01. Visitor Management**
- **RF02. User Management**
- **RF03. Member Management**
- **RF04. Administrator Management**

## **RF01. Visitor Management**

### **RF01.01 - Register**

The visitor will be able to access a registration form to become either a user or a member.

### **RF01.02 - Do it member**

If you are a visitor, you can subscribe and become a member.

### **RF01.03 - Do it user**

If you are a visitor, you can register and become a user.

## **RF02. User Management**

### **RF02.01 - Login**

In the login form, the user enters his/her username and password to access his/her profile.

### **RF02.02 - Logout**

The logout button will be used to exit the user's login.

### **RF02.03 - View profile of user**

The user will be able to visualize his profile.

### **RF02.04 - Edit profile of user**

The user will be able to edit his profile.

### **RF02.05 - Do it member**

If you are a user, you can subscribe and become a member.

### **RF02.06 - Rent a game**

The logged in user will be able to access a list of the video games in our database, in order to rent them.

### **RF02.07 - Reserve playing area**

The user reserves a play area for a certain time with the duration he wants.

### **RF02.08 - View reserve playing area**

The user can see his reservation through an interactive map of the reserved area.

### **RF02.09 - Filter playing areas state: by date, by type of console, by state(available, unavailable) and other criteria.**

Users can filter by different criteria in order to reserve their play area

**RF02.10 - Return Game**

The user who has rented a game can return it.

**RF02.11 - Cancel reserve playing area**

The user who has reserved a game zone can cancel the reservation before the scheduled time.

**RF02.12 - Resign**

The user will access a form to cancel the registration.

**RF03. Member Management**

**The member can do the same things as the user, and also...**

**RF03.01 - View profile of member**

The member will be able to visualize his profile.

**RF03.02 - Edit profile of member**

The member will be able to edit his profile.

**RF03.03 - Do it user**

If you are a member, you can cancel your membership and simply become a user

**RF03.04 - Rent a game**

The logged in member will be able to access a list of the video games in our database, in order to rent them with their discounts for being a member.

**RF03.05 - Reserve playing area**

The member reserves a play area for a certain time with the duration he wants with their discounts for being a member.

**RF03.06 - Return Game**

The member who has rented a game can return it

**RF03.07 - Cancel reserve playing area**

The member who has reserved a game zone can cancel the reservation before the scheduled time

**RF03.08 - Unsubscribe**

The member can cancel his subscription by means of an unsubscription form

**RF04. Administrator Management**

**The administrator can do the same things as the member, and also...**

**RF04.01 - View profile of administrator**

The administrator will be able to visualize his profile.

**RF04.02 - Edit profile of administrator**

The administrator will be able to edit his profile.

**RF04.03 - Rent a game**

The logged in administrator will be able to access a list of the video games in our database, in order to rent them with their discounts for being an administrator.

**RF04.04 - Filter playing areas state: by date, by type of console, by state(available, unavailable) and other criteria.**

The administrator can filter by different criteria to see which users have reserved which zone

**RF04.05 - CRUDS users**

The administrator can create, read, update, delete, and search for users or members in the database.

**RF04.06 - Return Game**

The administrator who has rented a game can return it.

**RF04.07 - Resign**

The administrator can unsubscribe either voluntarily or be dismissed.



# Non-functional requirements

The advantages of developing with Frameworks is that we also have access to all the code and in addition, developed with standards that allow us to organize the project and facilitate its future maintenance and scalability.

Laravel is an open source PHP framework that tries to take advantage of other Frameworks and develop with the latest versions of PHP (among many other things it provides as a framework). On its website, you will find extensive and organized documentation that will make the work of the developers much easier and more effective. This framework is constantly maintained and expanded by its developers which ensures the continuity and security of the framework with regular updates.

Angular is a framework used for the development of single-page web applications, and is developed in TypeScript. It is very easy to develop a frontend with Angular. The purpose of Angular, is to generate a larger number of browser-based applications, allowing the use of the model view controller (MVC), or rather, a more flexible variant called MVW (Model View Whatever).

Using MySQL we will have speed when making the operations, which makes it one of the managers with better performance. Low cost in requirements for the elaboration of databases, since due to its low consumption it can be executed in a machine with scarce resources without any problem. The administration will be done from phpMyAdmin, which offers a large number of uses and features.

CSS makes it possible to link HTML elements with "document templates" (style sheets or stylesheets), which, in addition to containing the topographic information of the visual elements of the page, make it possible to completely separate the content structure from its current representation and presentation, not only on the monitor but on any imaginable screen.

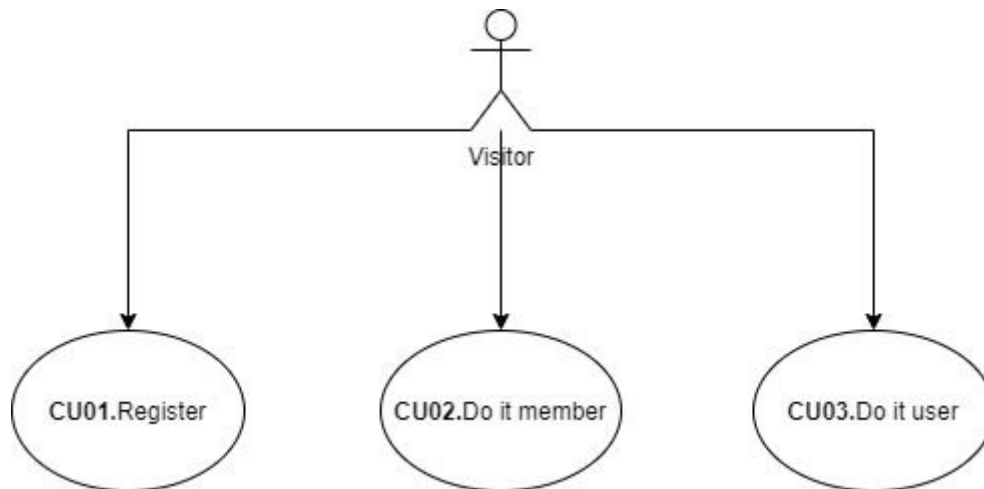
As a design tool we will use Bootstrap. Its main advantages are:

- It is a very easy to use tool, adapted to any programmer and that allows to create great websites in a short time.
- It's important to note that Bootstrap provides us with all the CSS rules so that our website adapts dynamically to most screens (responsive design).
- It has multiple external implementations: WordPress, Drupal, SASS or jQuery UI.
- Bootstrap offers us different tools to extend our framework, as well as to adapt it to our needs and features.

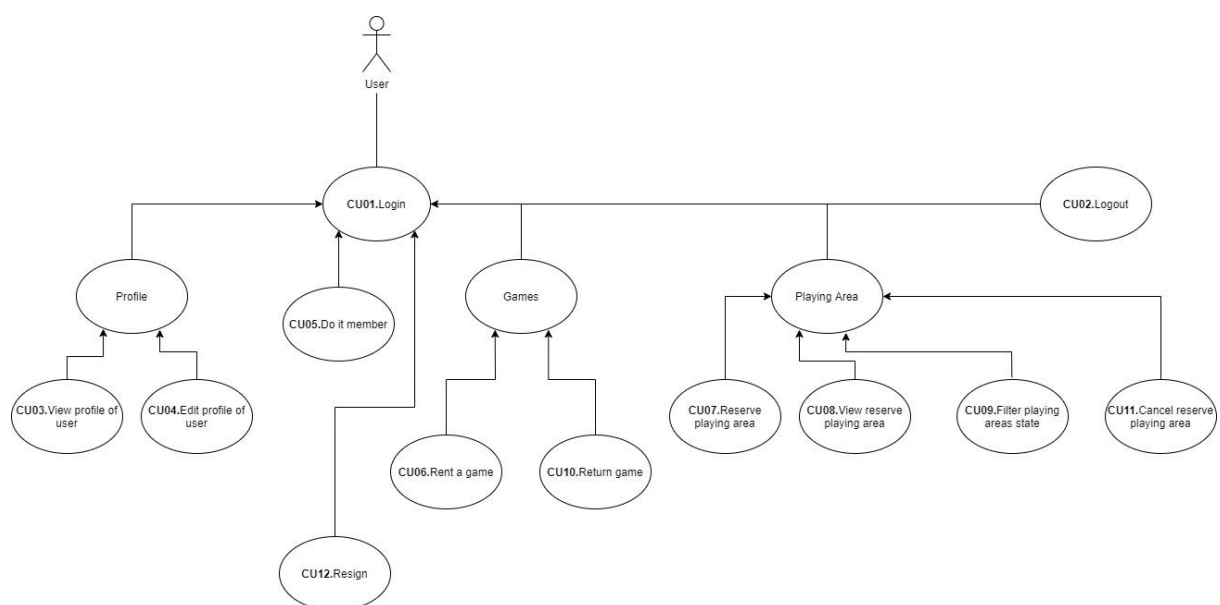
Git is a distributed repository that lets you work completely offline from the server and make as many commits as you want in stable midpoints without affecting the server code until you push. This is very useful because on the client server we sometimes made changes to the code that took days and we couldn't check in (the commit) until we had the code completely stable and finished.

# Case diagram

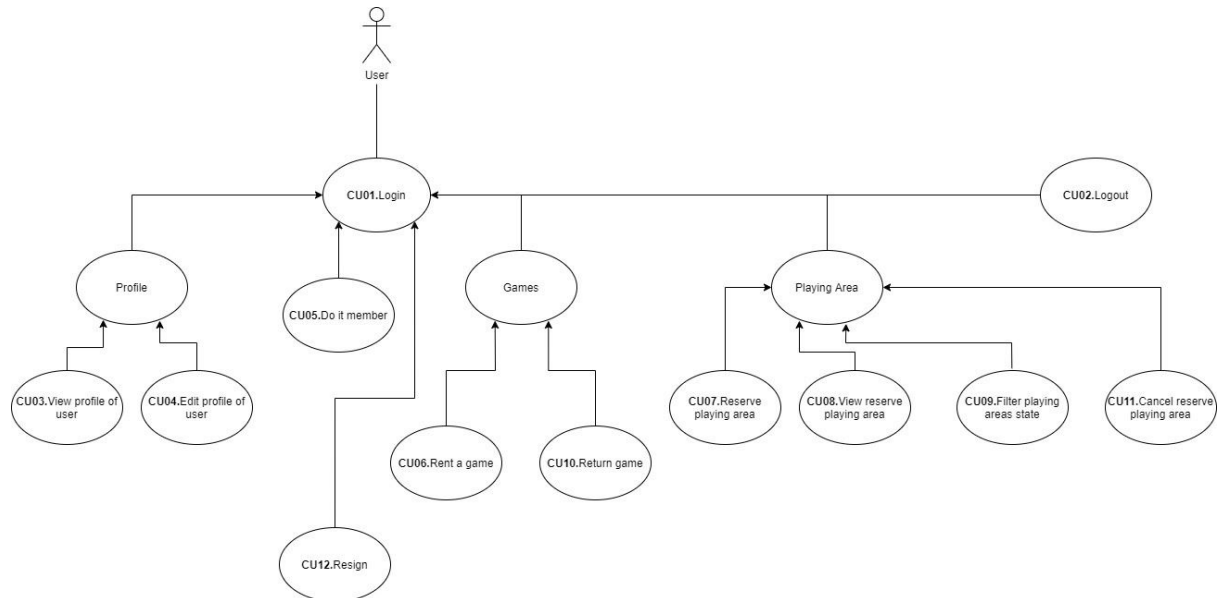
## Visitor view



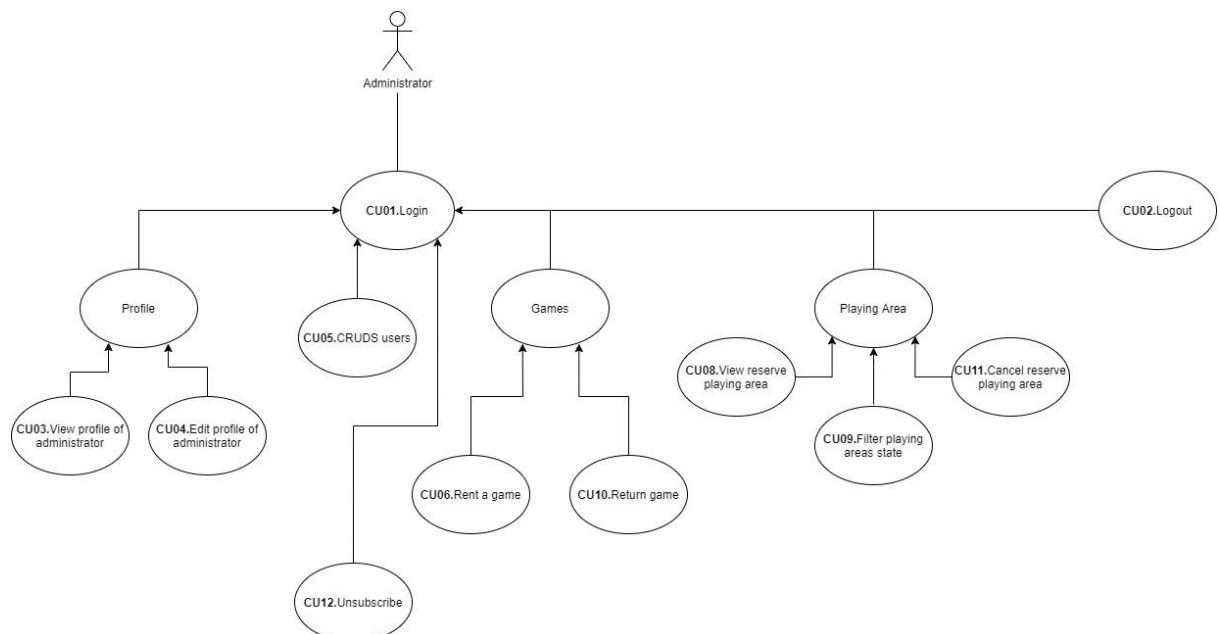
## Registered user view



## Member view



## Administrator view



# Textual Description

<b>Name:</b> CU01. Register
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> A visitor in the website proceeds to register to obtain a registered user.
<b>Actors:</b> Visitor
<b>Preconditions:</b> The user is not registered
<b>Normal flow:</b> <ol style="list-style-type: none"><li>1. The system displays a form for entering user datas, in which you are asked to provide the following data; nickname, name, surname, password, repeat password, email and date of birth.</li><li>2. The user enters data.</li><li>3. The system records the user, introducing this in the database.</li></ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"><li>1. The information provided by the user is incorrect.</li><li>2. The system returns to the form indicating the errors.</li></ol>
<b>Postconditions:</b> The unregistered user is recorded in the database.

<b>Name:</b> CU02. Do it member
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> A person can pay the subscription and become a member
<b>Actors:</b> Visitor, User
<b>Preconditions:</b> The visitor or user who is not a member
<b>Normal flow:</b> <ol style="list-style-type: none"><li>1. The system detects if it is a visitor or a user, then it shows one form or another: <ol style="list-style-type: none"><li>1.1 Visitor: The page shows a form to be a member, where it is shown the name, surname, address, street, floor, mail address, date of birth, payment method, and password.</li><li>1.2 User: The page shows a form to be a member, where it is shown the address, street, floor, payment method and password, since the other data already contemplated in the database.</li></ol></li></ol>

2. The person enters the data
3. The system enters the data in its database

**Alternative flow / exceptions:**

1. The information provided by the user is incorrect.
2. The system returns to the form indicating the errors.

**Postconditions:** The visitor or user becomes a member with the data stored in our database

**Name:** CU03. Do it user

**Author:** Esteban Valero y Eugenio Fresneda

**Date:** 16/04/2020

**Description:** A visitor can register and become a user or a member can unsubscribe and become a user only

**Actors:** Visitor, Member

**Preconditions:** The visitor or member who is not a user

**Normal flow:**

1. The system detects whether it is a visitor or a member, and then displays one form or another:
  - 1.1 Visitor: The page shows a form to be a user, where the nickname, name, surname, password, repeat password, email and date of birth are shown.
  - 1.2 Member: The page shows a warning text and an unsubscribe button.
2. The person enters the data or gives the button
3. The system introduces the data in its database if you are a visitor, in case you are a member apart from introducing them in the user table, it eliminates them from the members table

**Alternative flow / exceptions:**

1. The information provided by the user is incorrect.
2. The system returns to the form indicating the errors.

**Postconditions:** The visitor or member becomes a user with the data stored in our database

**Name:** CU04. Login

**Author:** Esteban Valero y Eugenio Fresneda

**Date:** 16/04/2020

**Description:** A user, member or administrator puts in their credentials to access the

system
<b>Actors:</b> User, Member and Administrator
<b>Preconditions:</b> Those persons who have made a previous registration
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. A form appears with your username or email, and the password.</li> <li>2. The user enters the data</li> <li>3. The system compares the data entered with the data in the database to give permission or not to access depending on the role</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The information provided by the user is incorrect.</li> <li>2. The system returns to the form indicating the errors.</li> </ol>
<b>Postconditions:</b> The person logs into the system

<b>Name:</b> CU05. Logout
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> The user, member or administrator logs out of the system
<b>Actors:</b> User, Member and Administrator
<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The user clicks on the log out button</li> <li>2. The system destroys the session and takes you to the home page</li> </ol>
<b>Alternative flow / exceptions:</b>
<b>Postconditions:</b> The person closes their session

<b>Name:</b> CU06. View profile of user
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> You can access your user profile information
<b>Actors:</b> User, Member and Administrator

<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The user clicks on the profile section</li> <li>2. The system displays the user's profile</li> <li>3. In the search engine of this section you can put the name of any user and the system will show it</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The system cannot find the nickname you entered</li> </ol>
<b>Postconditions:</b> You see on the page the user profile of you or anyone you want

<b>Name:</b> CU07. Edit profile of user
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> Modify the information you have about your user
<b>Actors:</b> User, Member and Administrator
<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. Access your profile section</li> <li>2. The system shows you your profile and a button to modify</li> <li>3. Click the button</li> <li>4. A form is displayed with the data previously entered by default in each field being modifiable.</li> <li>5. Click on the save button to save the changes</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The information provided by the user is incorrect.</li> <li>2. The system returns to the form indicating the errors.</li> </ol>
<b>Postconditions:</b> The registered user update his profile

<b>Name:</b> CU08. Rent a game
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> Rent the video game you want
<b>Actors:</b> User, Member and Administrator

<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. Access the game rental section</li> <li>2. Search with the search engine or browse the list of games and click on the one you like</li> <li>3. The system shows it to you along with a form with the date range and payment method fields.</li> <li>4. After entering the fields correctly, you will be sent the game code for the chosen platform</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The range of dates entered is greater than that allowed</li> <li>2. The payment data is incorrect</li> </ol>
<b>Postconditions:</b> The chosen game is rented and displayed in our database

<b>Name:</b> CU09. Reserve playing area
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 16/04/2020
<b>Description:</b> Reserve a play area so you can go play on that console at the selected time
<b>Actors:</b> User and Member
<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. Access to the play area option</li> <li>2. The system shows us a form choosing the console, the day and the time.</li> <li>3. After selecting the data we give the button reserve</li> <li>4. The system enters the reservation in the database</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The date entered is occupied</li> <li>2. On the third attempt to make a reservation without having attended the previous one, you are denied the possibility of making it until after a certain time</li> </ol>
<b>Postconditions:</b> The play area is rented and stored in our database

<b>Name:</b> CU10. View reserve playing area
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> You can see the reservation you made earlier



<b>Actors:</b> User and Member
<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. Go to the play area option</li> <li>2. Click on the button View my reservations</li> <li>3. The system shows you an interactive map of our premises with the area marked where you have previously booked it</li> </ol>
<b>Alternative flow / exceptions:</b>
<b>Postconditions:</b> You can see the reserved area

<b>Name:</b> CU11. Filter playing area state
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> Filter game zone reservations by date, time or console
<b>Actors:</b> User, Member and Administrator
<b>Preconditions:</b> Those persons who have made a previous log in
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The user will click on the game area option</li> <li>2. By means of some forms of date, hour and console the user will be able to filter the zone that he wants</li> <li>3. The system will display the filtered area</li> </ol>
<b>Alternative flow / exceptions:</b>
<b>Postconditions:</b> You can see the reserved area

<b>Name:</b> CU12. Create Users
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> The administrator can create a user
<b>Actors:</b> Administrator
<b>Preconditions:</b> The user must not be created

**Normal flow:**

1. The administrator accesses the administrator control panel where he clicks on the create user button.
2. The system shows two options between normal user or member.
3. The admin chooses which one he wants and the corresponding form is shown for that user.
4. After submitting the user is created and his data entered into the database

**Alternative flow / exceptions:**

1. The data entered is not correctly formatted
2. The user already exists

**Postconditions:** Enter a user in the database

**Name:** CU13. Update Users

**Author:** Esteban Valero y Eugenio Fresneda

**Date:** 17/04/2020

**Description:** The administrator can update the user's information

**Actors:** Administrator

**Preconditions:** The user must be created

**Normal flow:**

1. The administrator accesses his control panel and clicks on Modify user
2. The system displays a list of users sorted and with a search engine.
3. The administrator either searches the list or uses the search engine and clicks on the Modify button of the user.
4. A form appears with the data introduced of the default user to be able to modify them.
5. After clicking the Save button, the information is updated in the database

**Alternative flow / exceptions:**

1. The data entered is not correctly formatted
2. The user not exists

**Postconditions:** Saves the modified user data in the database

**Name:** CU14. Read Users

**Author:** Esteban Valero y Eugenio Fresneda

**Date:** 17/04/2020

**Description:** The administrator can read the user's information

<b>Actors:</b> Administrator
<b>Preconditions:</b> The user must be created
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The administrator accesses his control panel and clicks on Show user</li> <li>2. The system displays a list of users sorted and with a search engine.</li> <li>3. The administrator either searches the list or uses the search engine and clicks on the Detail button of the user.</li> <li>4. All user information is displayed</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The user not exists</li> </ol>
<b>Postconditions:</b> Reads user data to the database

<b>Name:</b> CU15. Delete Users
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> The administrator can delete a user
<b>Actors:</b> Administrator
<b>Preconditions:</b> The user must be created
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The administrator accesses his control panel and clicks on Delete user</li> <li>2. The system displays a list of users sorted and with a search engine.</li> <li>3. The administrator either searches the list or uses the search engine and clicks on the Remove button of the user.</li> <li>4. User is deleted of the database</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The user not exists</li> </ol>
<b>Postconditions:</b> Delete a user to he data base

<b>Name:</b> CU16. Cancel reserve
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> Cancel a reservation of a game area made previously by a user
<b>Actors:</b> User and Member

<b>Preconditions:</b> There must be a reserved play area
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The user gives the option of playground.</li> <li>2. Click on the "My Bookings" option.</li> <li>3. The system displays a list of all reservations made by the user and a button next to it to cancel them</li> <li>4. The user presses the Cancel button and the reservation is deleted from the database</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The reserve not exists</li> </ol>
<b>Postconditions:</b> Delete a reserve to the database

<b>Name:</b> CU17. Return Game
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> Return a previously rented game
<b>Actors:</b> User, Member and Administrator
<b>Preconditions:</b> A person must have rented a game before they can return it
<b>Normal flow:</b> <ol style="list-style-type: none"> <li>1. The user clicks on the Rent a game option.</li> <li>2. Click on the My rented games button</li> <li>3. A list of the rented games is shown which the user has</li> <li>4. The user gives the return button that has each game</li> <li>5. The rented game is removed from the database</li> </ol>
<b>Alternative flow / exceptions:</b> <ol style="list-style-type: none"> <li>1. The game rented not exists</li> </ol>
<b>Postconditions:</b> Delete a rented game to the database

<b>Name:</b> CU18. Unsubscribe
<b>Author:</b> Esteban Valero y Eugenio Fresneda
<b>Date:</b> 17/04/2020
<b>Description:</b> Stop paying the membership subscription
<b>Actors:</b> Member
<b>Preconditions:</b> The person must be a member

**Normal flow:**

1. The member goes to his control panel
2. The system shows you the option to unsubscribe
3. The member gives and confirms his/her unsubscription

**Alternative flow / exceptions:**

**Postconditions:** Delete a member to the database

**Name:** CU19. Resign

**Author:** Esteban Valero y Eugenio Fresneda

**Date:** 17/04/2020

**Description:** The user or the administrator is no longer

**Actors:** User and Administrator

**Preconditions:** Be registered

**Normal flow:**

1. The user goes to his control panel
2. Click the delete account button
3. The system removes the account from the database

**Alternative flow / exceptions:**

**Postconditions:** Delete a user or administrator to the database

# Methodology

## Description

We will use agile methodologies, which allow us to improve the quality of the product. The continuous interaction between developers and customers aims to ensure that the final product is exactly what the customer wants and needs. There are different types but we will use Scrum:

- Scrum allows development teams to prioritize the modules that bring the most value to the business and the organization in an iterative way, receiving constant feedback from the business area to adapt the product construction to the changing needs of the project.
- Scrum promotes the construction of very high quality software, thanks to the fact that it is completely focused on the user's problem and prioritizes the modules that add the most value to the organization.
- Scrum motivates teams to work together in a united manner. The framework processes naturally encourage this way of working: daily meetings of the whole team, constant feedback and transparency about goals, times and progress allow the team to be in the same understanding about the priorities in the project.
- Scrum allows all team members to be always aware of the progress, objectives and timescale of the project. It also establishes a non-hierarchical organizational form; that is, no team member has the role of leader, and furthermore, each one leaves his or her assignments as they see fit as long as they meet their objectives.
- Scrum processes are iterative and are managed within very specific work periods, which makes it easier for the team to focus on very specific functionalities for each period.

We'll use Trello. Trello is an application based on the Kanban method and serves to manage tasks, allowing you to organize group work in a collaborative manner using virtual dashboards composed of task lists in the form of columns.

It is perfect for project management as different states can be represented and shared with different people forming the project.

# Project planning

At the end of each week we will mark the sprint of the week since at that time we have everything recent and thus expedite the work arriving the following week already with a planning done, when arriving we only have to assign ourselves in one of the functionalities and move it to In Progress.

We have divided the work into 4 sprints:

Sprint 1 (4-10 May)	<p>The first week we took advantage of it especially to prepare everything we needed: The creation of the database, with real data, the installation of the Angular framework, the Laravel framework, the installation of Git, etc. When we learned how to connect Angular to Laravel, we saw that it was quite easy to connect them together, but not when controlling sessions or logging in. Since we didn't want to waste any more time than usual and were more confident with simple PHP code, we decided to set up the whole server side with pure PHP.</p> <p>So we started to do the login, the user and member registration, and the user management part for the administrator.</p>
Sprint 2 (11-17 May)	<p>In the second week of the project we were already working more continuously, because we knew almost how to do many things, but still we had many moments of learning.</p> <p>We finished the login and registration parts and ended with the user management, then we started with the session control according to the role of the user that was logged in, preventing a user that did not have the necessary privileges to enter the control panel of another user.</p> <p>On the other hand, we started with the game management, the view of each user's profile and the design of the website.</p>
Sprint 3 (18-24 May)	<p>The third week was probably the hardest but most continuous and productive. We finished the game management and</p>

	<p>improved everything related to user management and session control.</p> <p>We did the booking management for the administrator and the form for user and member, with the luck that we didn't lose much time in errors and in one day we could finish it, so in this way we decided to do also the game rental functionality, that we could also finish in a short time.</p> <p>We totally changed the colors of the website and we finished all the sections of the functionalities and started with the static pages.</p>
Sprint 4 (25-27 May)	<p>The last week, or rather the last two days that we have left, we are taking advantage of them to finish touching up the whole thing.</p> <p>We are finishing the validations, finishing the documentation, finishing the web design, we have cleaned the code and commented everything well and we are showing the project to the teachers so they can give us their opinion and improve it as much as possible.</p> <p>We are also considering making a PowerPoint for the video that we have to make as an introduction.</p>



## Sprint 1 (4-10 May):

The Kanban board displays tasks across four columns: To Do, In Progress, Testing, and Done. Each task card includes a title, a colored progress bar with a percentage, a description, and a list of assignees.

### To Do

- Web Design (100%)
- RF03.03.Do it User (100%)
- RF02.05.Do it Member (20%)
- RF03.12.Resign (100%)
- RF03.04.Rent Game (40%)
- RF03.01.View Profile of Member (20%)
- RF02.03.View Profile of User (20%)
- RF03.06.Return Game (40%)
- RF03.05.Reserve Playing Area (40%)
- RF03.07.Cancel Reserve Playing Area (40%)
- RF03.08.Unsubscribe (20%)
- RF02.04.Edit Profile User (40%)
- RF03.02.Edit Profile Member (40%)
- RF02.08.View Reserve Playing Area (30%)
- RF04.04.Filter Playing Area (40%)
- RF04.01.View Profile of Administrator (20%)
- RF04.02.Edit Profile of Administrator (40%)

### In Progress

- Documentation (30%)
- RF02.01.Login (30%)
- RF01.01.Register User (30%)
- RF01.02.Register Member (40%)
- RF02.02.Logout (30%)
- RF04.05.CRUD Users (80%)

### Testing

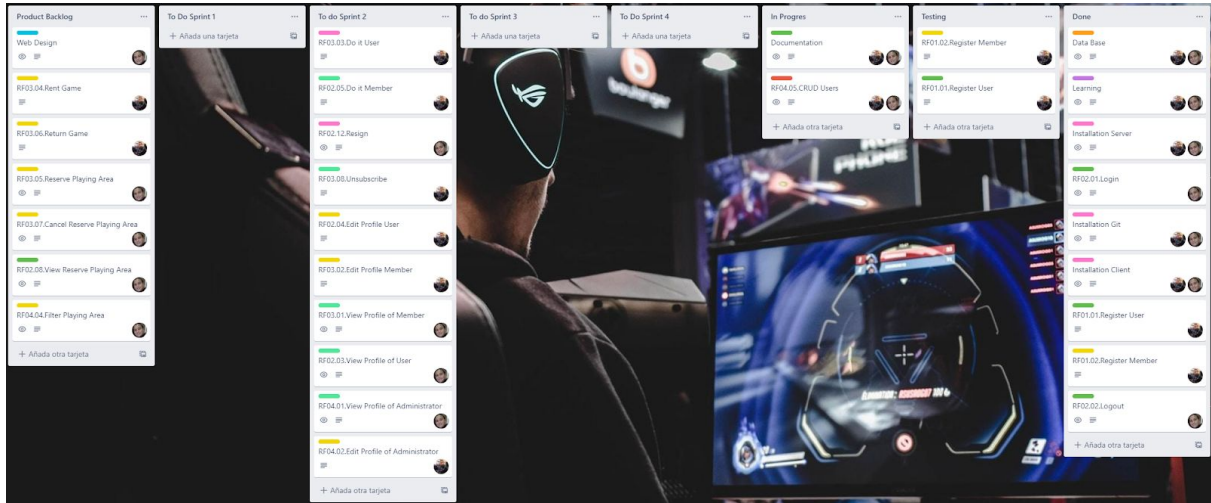
+ Añada una tarjeta

### Done

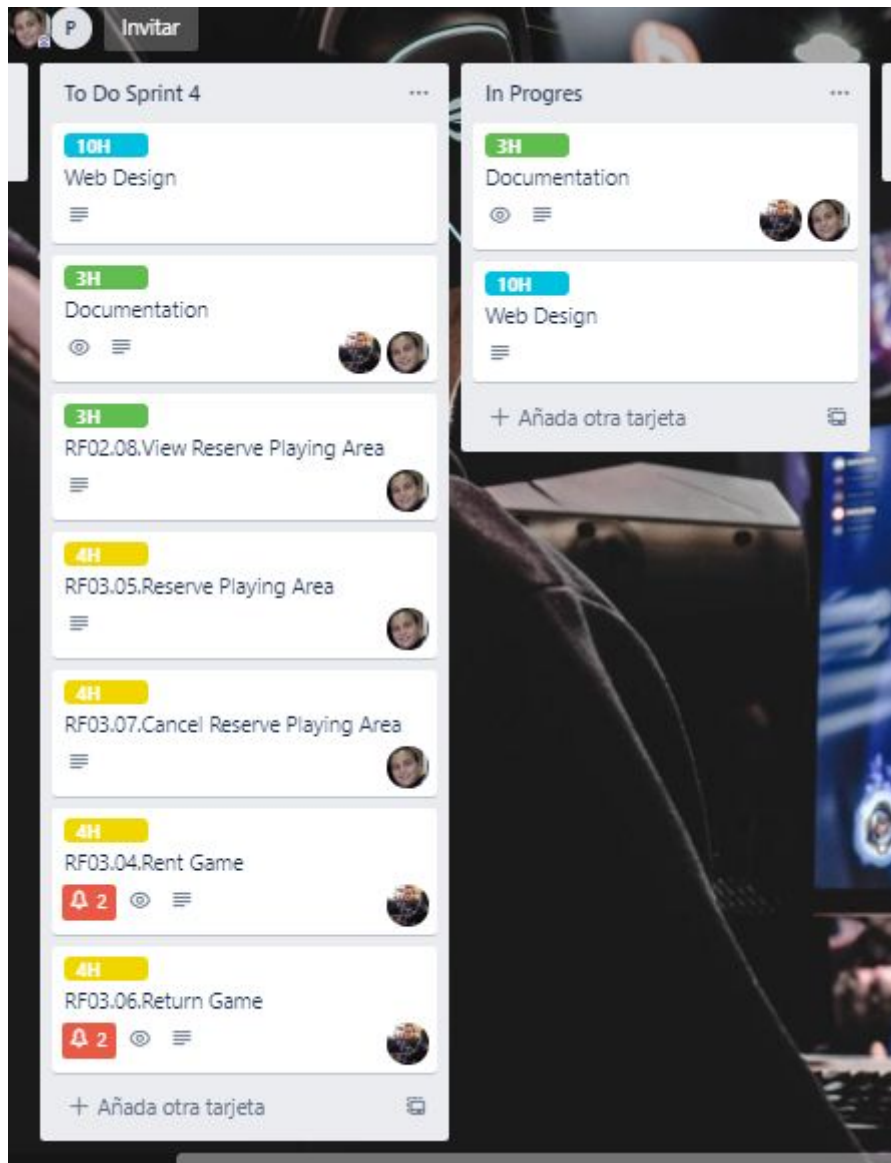
- Data Base (50%)
- Learning (60%)
- Installation Server (100%)

+ Añada otra tarjeta

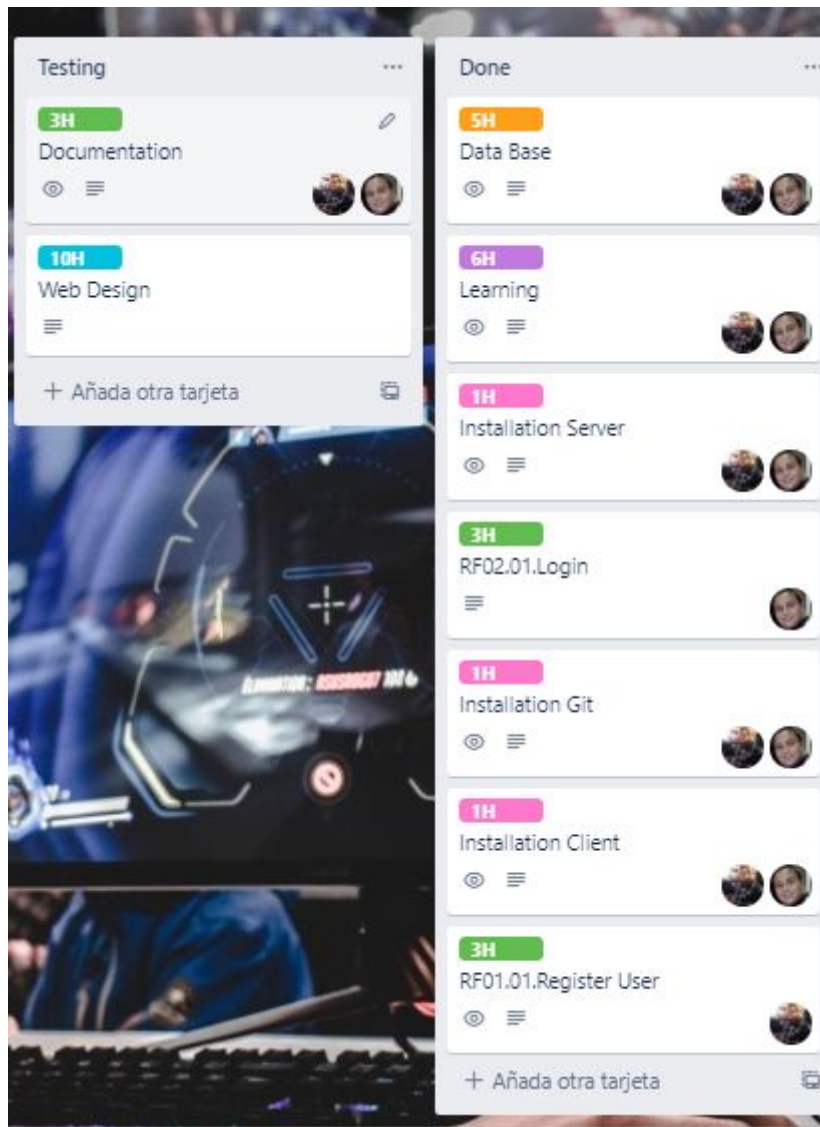
## Sprint 2 (11-17 May):



## Sprint 3 (18-24 May):

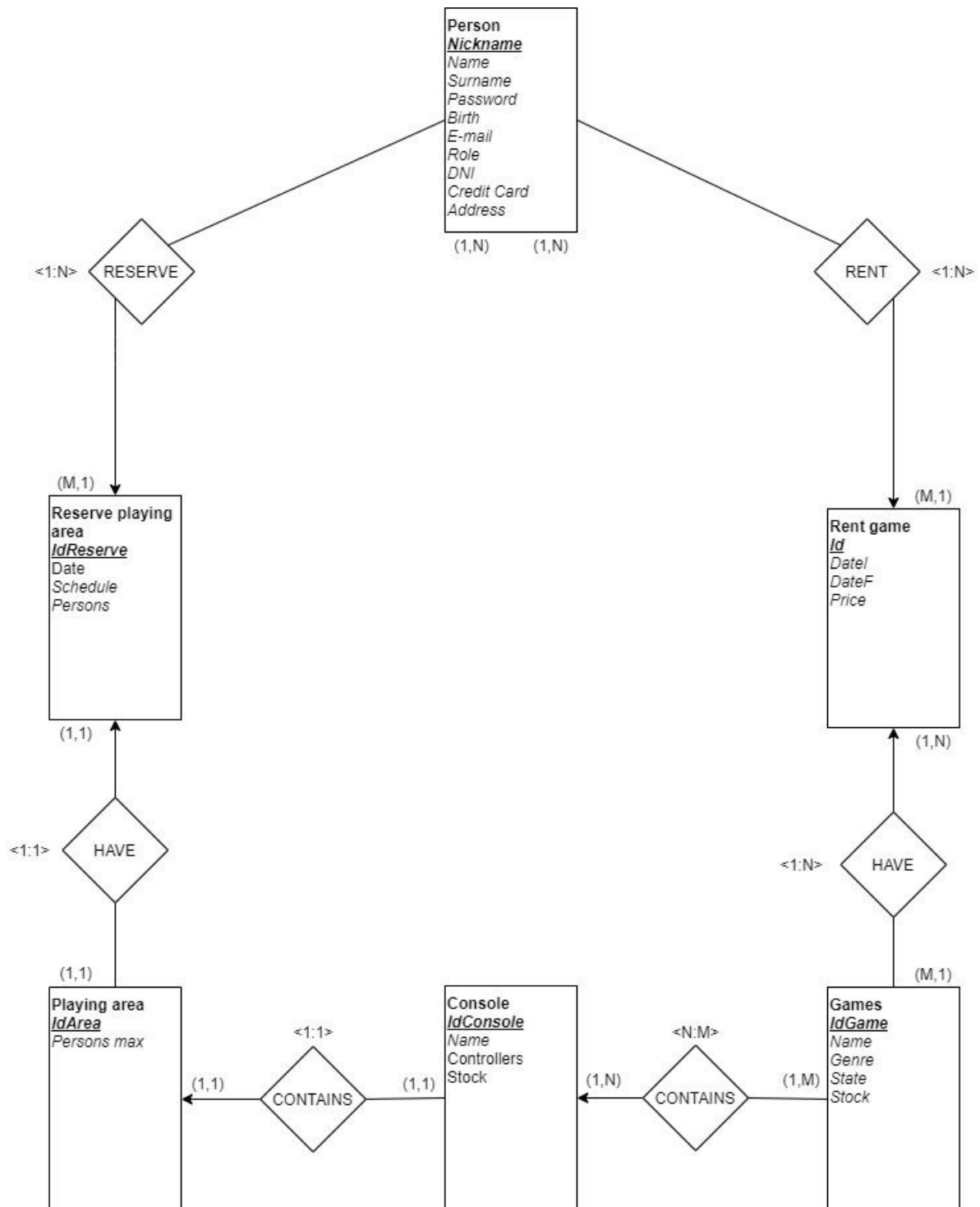


Sprint 4 (25-27 May):



# Data Base

## Entity-relation diagram



## Relational model

**PERSON** (Nickname(PK), Name, Surname, Password, Birth, E-mail, Role, DNI, Credit Card, Address)

**RESERVE** (IDReserve(PK), Date, Schedule, Number persons, Nickname(FK), IDArea(FK))

**RENT** (IDRent(PK), DateStart, DateEnd, Price, Nickname(FK), IDGame(FK))

**PLAYING AREA** (IDArea(PK), Persons Max, IDConsole(FK))

**CONSOLE** (IDConsole(PK), Name, Controllers, Stock)

**GAME** (IDGame(PK), Name, Genre, State, Stock)

**CONTAINS** (IDConsole(FK), IDGame(FK))  
PK

## Data Cases

RESERVE					
IDReserve(PK)	Date	Schedule	Persons	Nickname(FK)	IDArea(FK)
211217SW1	21/12/2020	17:00	4	Yaru	SW1
21121913PS1	21/12/2020	19:00	2	OhhCrak	PS1
21121912SW1	21/12/2020	19:00	3	Otentyalson	SW1
211220XBX1	21/12/2020	20:00	2	Mignitync	XBX1
211221PC1	21/12/2020	21:00	1	Lownimentall	PC1
211221PC2	21/12/2020	21:00	1	Hedusbuie	PC2
211223PC1	21/12/2020	23:00	1	NistaSolitaire	PC1
221212PC3	22/12/2020	12:00	1	SmashingNicithic	PC3
221216PS4	22/12/2020	16:00	2	Anitertal	PS4
221217PS3	22/12/2020	17:00	1	Dinhermaye	PS3
221217SW1	22/12/2020	17:00	4	Nitioulmouto	SW1
231216XBX2	23/12/2020	16:00	4	Intlentheia	XBX2
231220PS1	23/12/2020	20:00	4	Afteverystorke	PS1
231220SW1	23/12/2020	20:00	3	NittyNingster	SW1
241218XBX1	24/12/2020	18:00	2	Eyeadrsom	XBX1
241223PC6	24/12/2020	23:00	1	Shirtanges	PC6



PERSON				
Nickname(PK)	Name	Surname	Password	Mail
Yaru	Esteban	Valero	admin123	estebanvalero@gmail.com
OhhCrak	Eugenio	Fresneda	admin123	eugeniofresneda@gmail.com
Otentyalson	Juan	Ortega	member123	juanortega@gmail.com
Mignitync	Enzo	Gonzalez	member123	enzogonzalez@gmail.com
Lownimentall	Clemente	Yanez	member123	clementeyanez@gmail.com
Hedusbuie	Valentina	Leon	member123	valentinaleon@gmail.com
NistaSolitaire	Thiago	Guirado	member123	thiagoguirado@gmail.com
SmashingNicithic	Soraya	Gomez	user123	sorayagomez@gmail.com
Anitertal	Roberto	Correa	user123	robertocorrea@gmail.com
Dinhermaye	Claudia	Carranza	user123	claudiacarranza@gmail.com
Nitioulmouto	Xavier	Alcaide	user123	xavieralcaide@gmail.com
Intlenhea	Francisco	Costas	user123	franciscocostas@gmail.com
Afteverystorke	Borja	Salguero	user123	borjasalguero@gmail.com
NittyNingster	Helena	Alvarez	user123	helenaalvarez@gmail.com
Eyeadsorm	Julian	Minguez	user123	julianminguez@gmail.com
Shirtanges	Marc	Belda	user123	marcbelda@gmail.com

PERSON				
Birth	DNI	Role	Credit Card	Address
21/05/1990	42337744B	admin	5650 5484 8454 6845	C/ Sant Josep, 30
22/06/1980	48070240X	admin	5172 1325 0978 5877	C/ Avellane, 5
23/05/1995	41341268X	member	5434 4088 0082 4751	C/ Arana, 82
24/05/1994	42445248J	member	5146 1549 4402 5686	C/ La Fontanilla, 5
25/10/1993	45132932D	member	5381 6403 1576 2291	C/ Puerta Nueva, 23
26/05/1990	41288797W	member	5298 6030 0632 5356	C/ Pablo Iglesias, 25
27/05/1998	47283767E	member	5146 4855 9929 8362	C/ Cañada del Rosal, 5
28/05/1989	42129310A	user	5487 8157 5431 4447	C/ Salzillo, 89
29/05/2000	47495838X	user	5353 2922 5720 6930	C/ San Andrés, 103
30/05/1980	47896500N	user	5329 7984 0218 3574	C/ Higuera de Lojo, 101
31/07/1999	46508129J	user	5213 1307 7378 4221	C/ Los Herrán, 37
01/06/1990	41694375K	user	5336 4785 3904 8476	C/ Escuadro, 12
02/06/1990	40373620H	user	5117 8135 8263 9893	C/ Fernández de Leceta, 30
03/06/1990	45669376R	user	5558 8487 9088 8193	C/ Henan Cortes, 28
27/05/1994	41624833P	user	5485 2246 8235 1658	C/ Domingo Beltrán, 52
29/11/1993	46811880A	user	5183 1005 9501 7502	C/ Angosto, 9

RENT				
IDRent(PK)	DateStart	DateEnd	Price	IDGame(FK)
SMPS1	15/11/2020	22/11/2020	10€	1
MWPS1	15/11/2020	25/12/2020	13€	2
GTAPS1	15/11/2020	18/12/2020	5€	6
MKSW1	17/11/2020	19/12/2020	3€	7
ZBWSW1	17/11/2020	20/12/2020	5€	8
ACPS1	20/11/2020	22/12/2020	3€	9
ACSW1	20/11/2020	24/12/2020	7€	11
SSBSW1	20/11/2020	24/12/2020	7€	12
FFPS1	20/11/2020	25/12/2020	8€	13
HIXBX1	21/11/2020	26/12/2020	8€	14
JDSW1	22/11/2020	23/12/2020	2€	16

GAME				
IDGame(PK)	Name	Genre	State	Stock
1	Spider-Man	Action	Disponibile	20
2	COD: Modern Warfare	Action	Disponibile	22
3	League Of Legends	MOBA	Disponibile	16
4	Apex	Battle Royale	Disponibile	20
5	Fortnite	Battle Royale	Disponibile	16
6	GTA V	Action	Disponibile	20
7	Mario Kart 8	Racing	Disponibile	20
8	The Legend of Zelda: Breath of the Wild	Adventure	Disponibile	20
9	Assetto Corsa	Racing	Disponibile	20
10	PlayerUnknown's Battlegrounds	Battle Royale	Disponibile	16
11	Animal Crossings New Horizons	Adventure	Disponibile	20
12	Super Smash Bro Ultimate	Action	Disponibile	10
13	FIFA 2020	Sports	Disponibile	10
14	Halo Infinite	Action	Disponibile	20
15	Counter-Strike: Global Offensive	Action	Disponibile	16
16	Just Dance 2020	Dancing	Disponibile	5



CONTAINS	
IDConsole(FK)	IDGame(FK)
PK	
1	1
1	2
1	4
1	6
1	9
2	3
2	5
2	10
2	15
3	7
3	8
3	12
3	16
4	14
4	13

CONSOLE			
IDConsole(PK)	Name	Controllers	Stock
1	Play Station 4	4	10
2	PC	1	16
3	Switch	4	10
4	Xbox	4	10

PLAYING AREA		
IDArea(PK)	Persons Max	IDConsole(FK)
PS1	4	1
PS2	4	1
PS3	4	1
PS4	4	1
PC1	1	2
PC2	1	2
PC4	1	2
PC5	1	2
SW1	4	3
SW2	4	3
XBX1	4	4
XBX2	4	4

# Materials required

## Programming languages

- PHP
- JavaScript with the framework Angular 8

## Technologies

- HTML5
- CSS3
- Bootstrap

## Data base

As a database language we use MySQL in the database manager PhpMyAdmin

## Other

- Git and Github to share the project with us and save previous versions
- Trello to manage each week's sprints

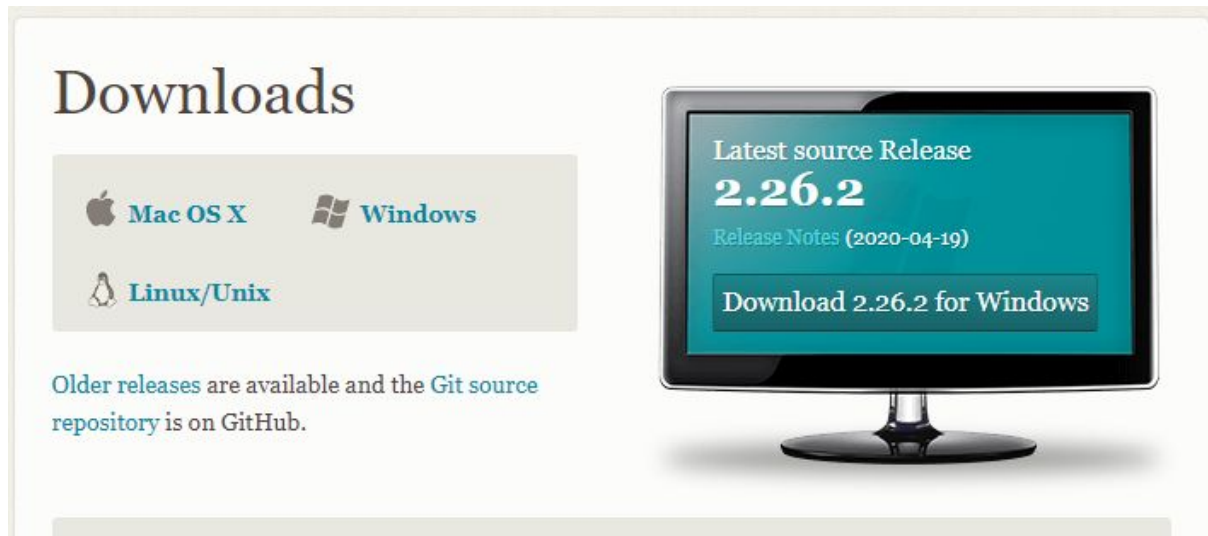
## Software

- Visual Studio Code
- Atom
- Notepad
- Xampp

# Installation Guide

## Installation Git on Windows

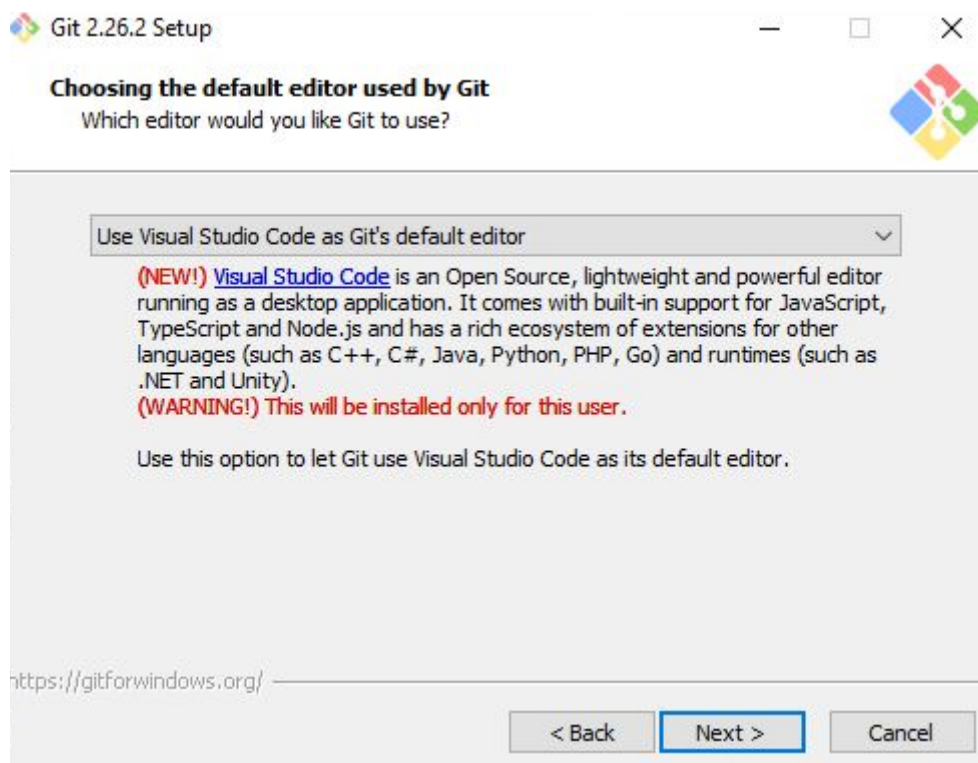
The first thing we must do is go to the official website <https://git-scm.com/> and download the executable according to the version we have of Windows:



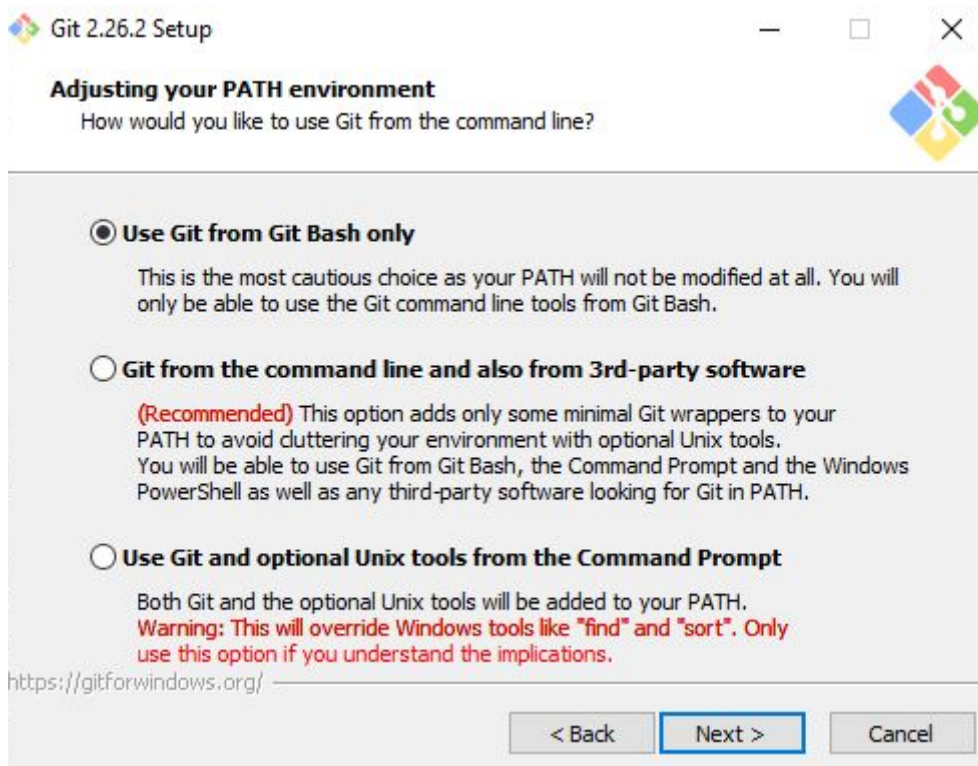
We accept Git's terms:



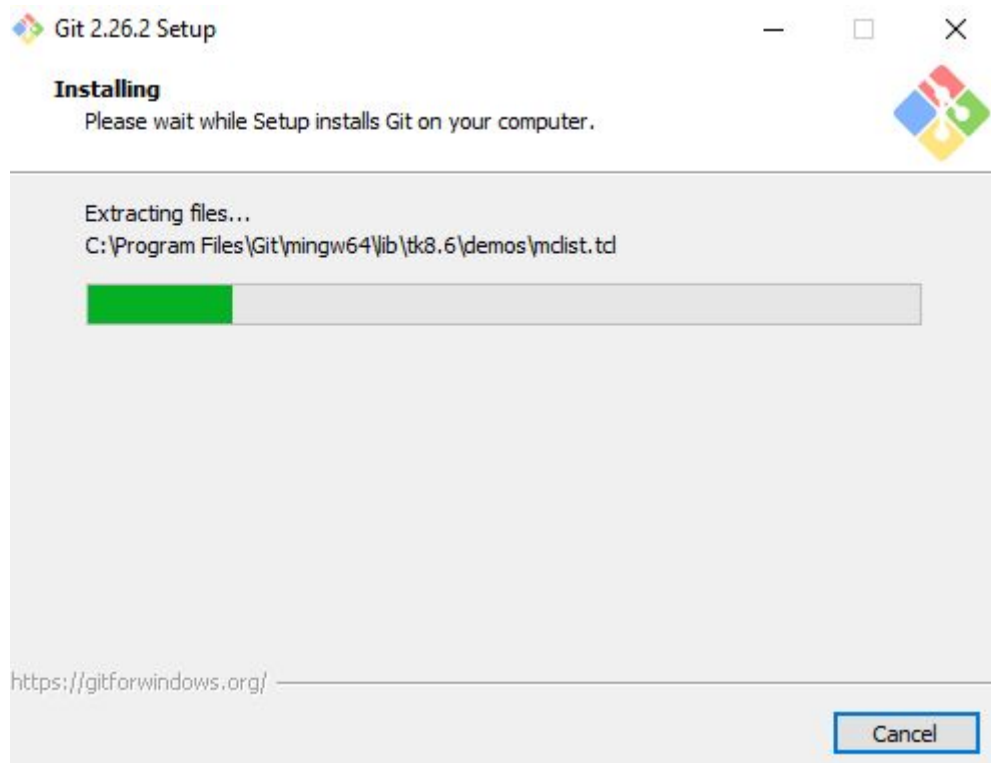
We choose the editor we're going to work with:



We'll choose to use the Git console for your commands:



Then the installation will begin:

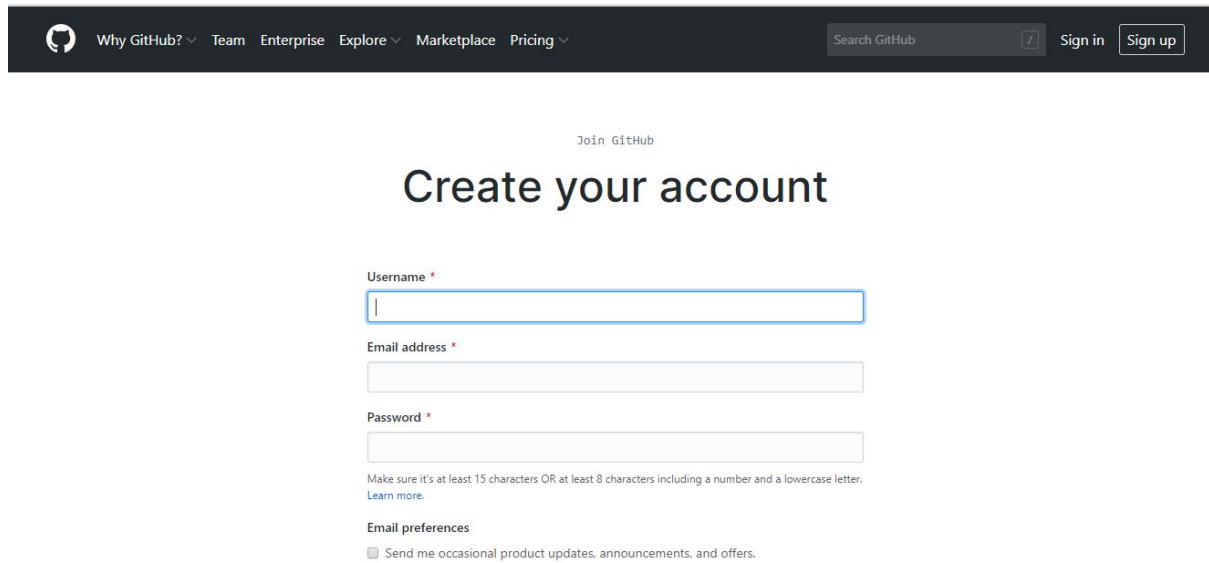


This way we can access Git bash and use all the commands we need.

A screenshot of a Windows command prompt window titled 'MINGW64:/c/Users/Andres Valero Cuenca/Documents/Proyecto'. The prompt shows the user 'Andres Valero Cuenca@DESKTOP-Q4FS9G0' in a 'MINGW64' environment. The user enters the command '\$ cd Proyecto/'. The prompt then shows the user in the directory '~/Documents/Proyecto'. The user enters '\$ git init', and the output is 'Initialized empty Git repository in C:/Users/Andres Valero Cuenca/Documents/Proyecto/.git/'. The user then enters '\$ git status', and the output is 'On branch master' followed by 'No commits yet' and 'nothing to commit (create/copy files and use "git add" to track)'. The prompt ends with '\$ |'.

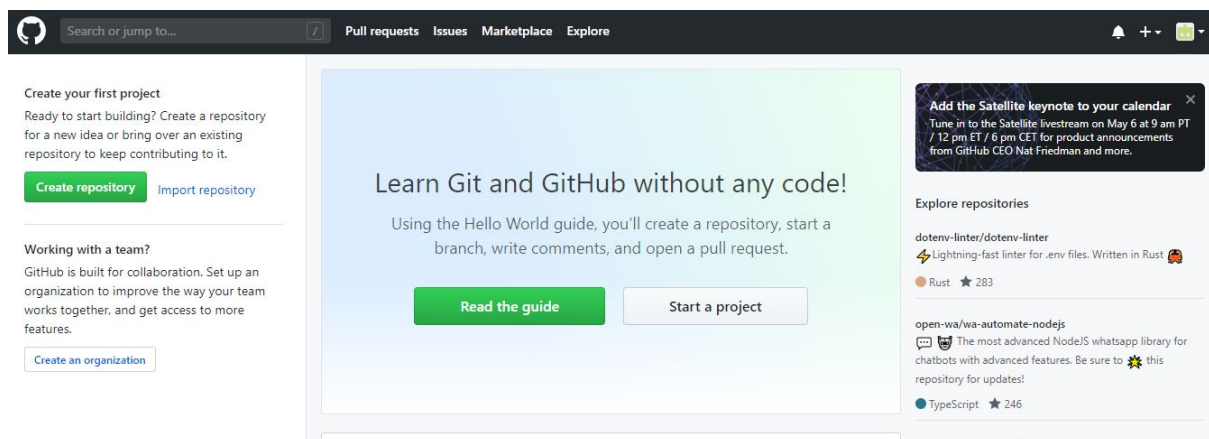
On the other hand, we will go to the GitHub website, and create an account:

<https://github.com/>



The screenshot shows the GitHub 'Create your account' page. At the top is a dark navigation bar with the GitHub logo, links for 'Why GitHub?', 'Team', 'Enterprise', 'Explore', 'Marketplace', and 'Pricing', a search bar, and 'Sign in' and 'Sign up' buttons. The main heading is 'Create your account'. Below it are three input fields: 'Username', 'Email address', and 'Password', each with an asterisk indicating it's required. The 'Password' field has a note: 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)'. Below the password field is an 'Email preferences' section with a checkbox and the text 'Send me occasional product updates, announcements, and offers.'

After checking your e-mail you can access your control panel from where you can upload your repositories.

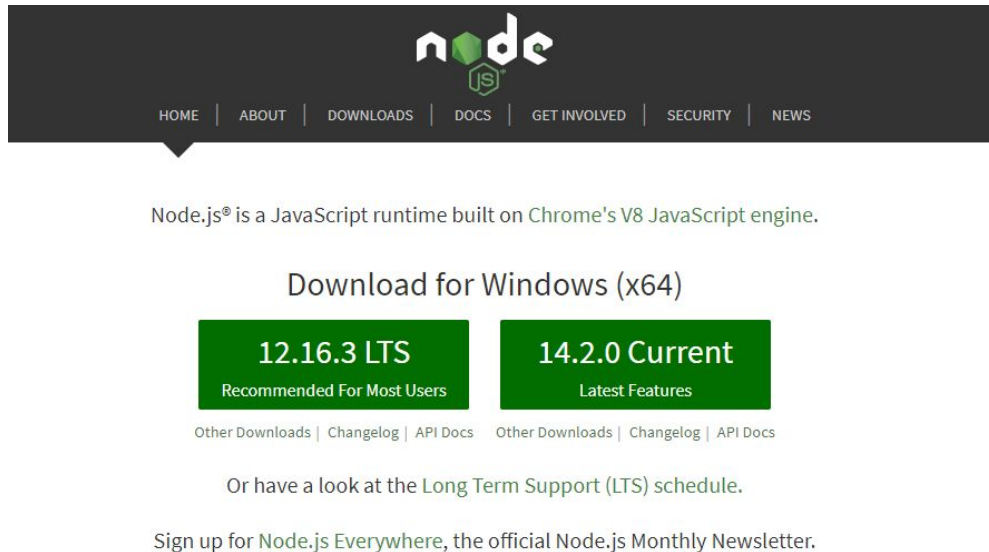


The screenshot shows the GitHub homepage for a new user. The top navigation bar includes the GitHub logo, a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. The main content area is divided into three sections. On the left, 'Create your first project' offers 'Create repository' and 'Import repository' buttons, and 'Working with a team?' offers a 'Create an organization' button. The center section, 'Learn Git and GitHub without any code!', features a large green 'Read the guide' button and a 'Start a project' button. On the right, there's a 'Add the Satellite keynote to your calendar' notification, an 'Explore repositories' section listing 'dotenv-linter/dotenv-linter' and 'open-wa/wa-automate-nodejs', and a 'Recent commits' section.

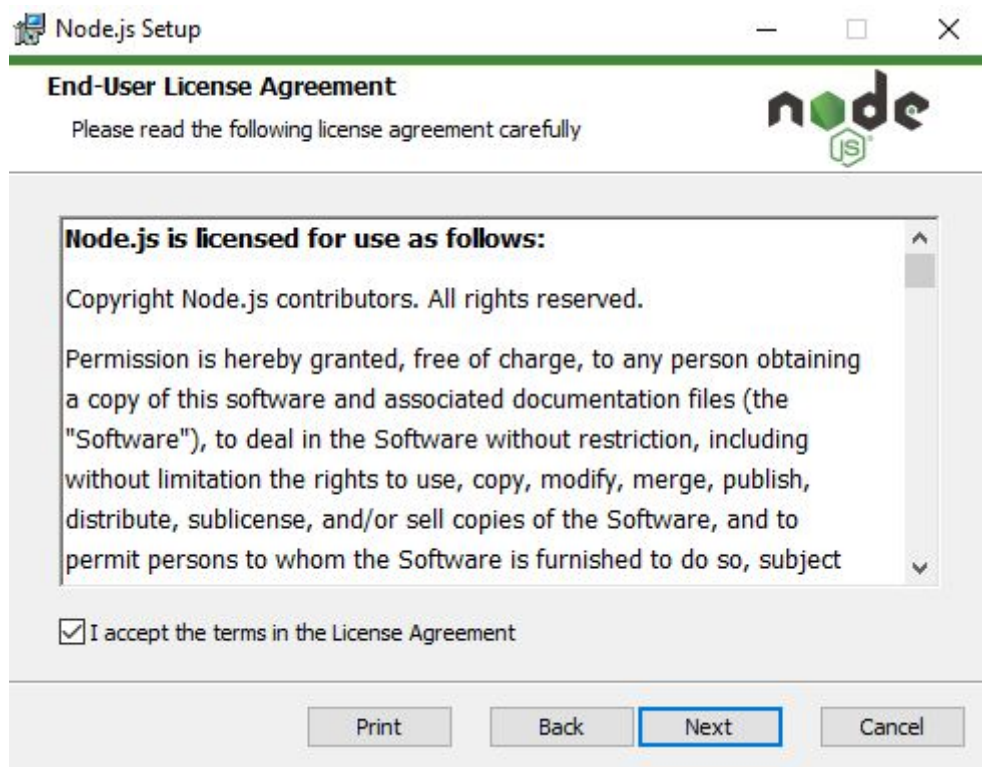


## Installation Angular 8

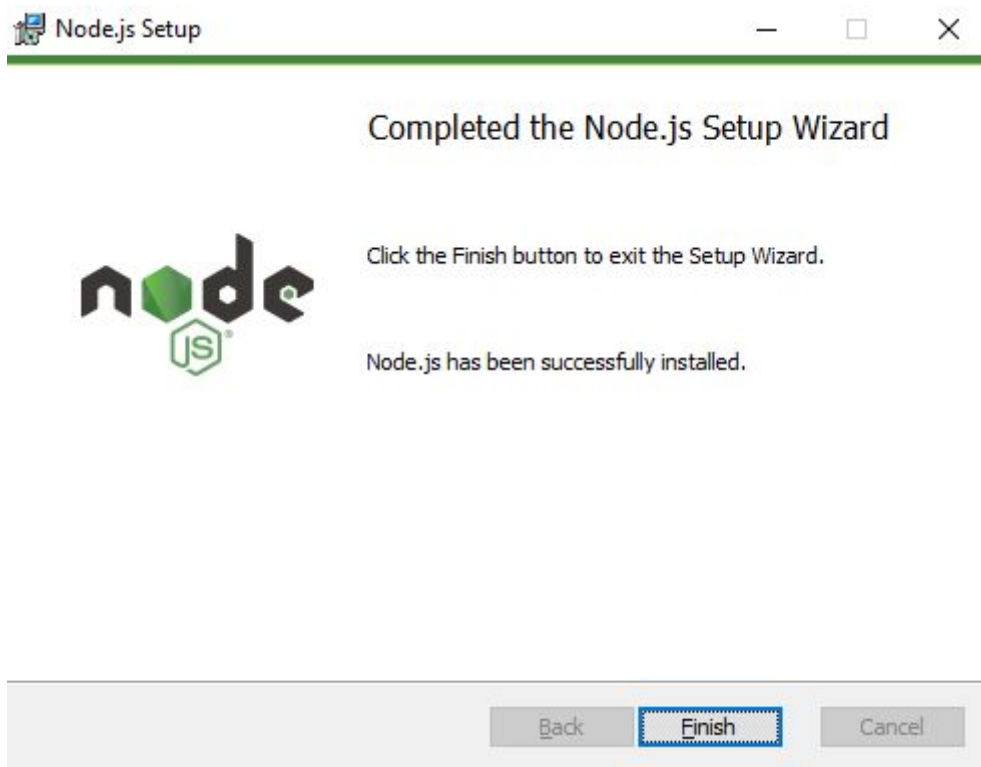
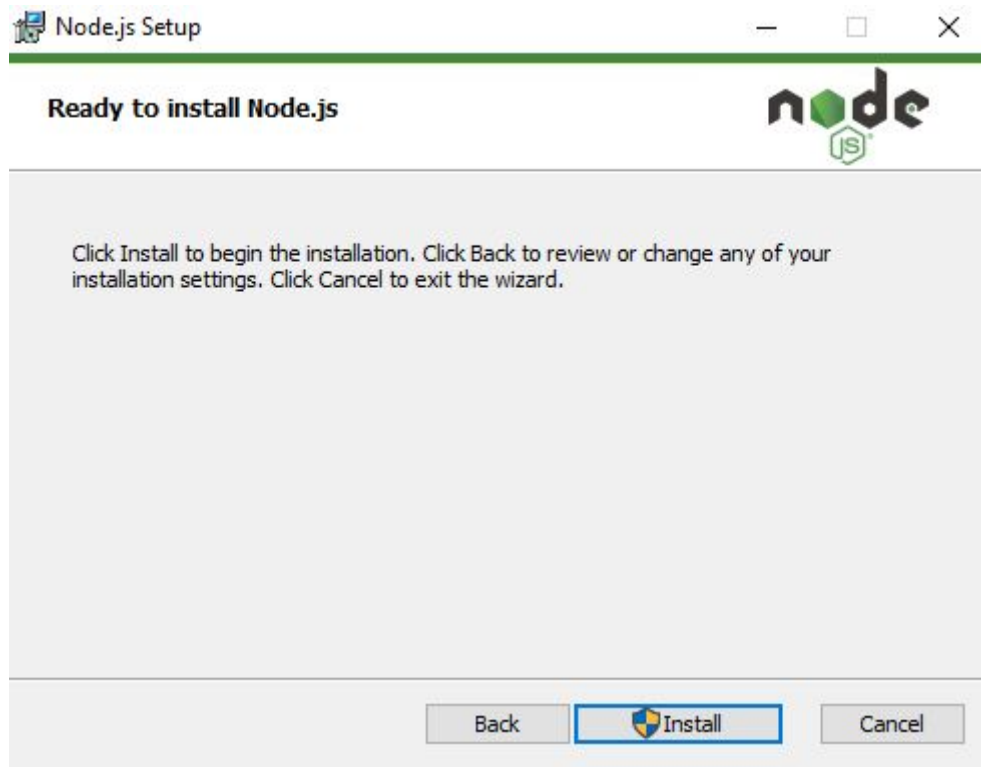
The first thing we must do is download and install node.js in its latest version from the official website:



Accept terms and conditions



Press install:





We check that everything has been installed correctly

```
C:\Users\eugen>node -v
v13.3.0
```

We installed Angular in its version 8

```
C:\Users\eugen>npm install -g @angular/cli@8.3.26
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142
C:\Users\eugen\AppData\Roaming\npm\ng -> C:\Users\eugen\AppData\Roaming\npm\node_modules\@angular\cli\bin\ng

> @angular/cli@8.3.26 postinstall C:\Users\eugen\AppData\Roaming\npm\node_modules\@angular\cli
> node ./bin/postinstall/script.js

+ @angular/cli@8.3.26
added 251 packages from 185 contributors in 11.13s
```

Create a new project:

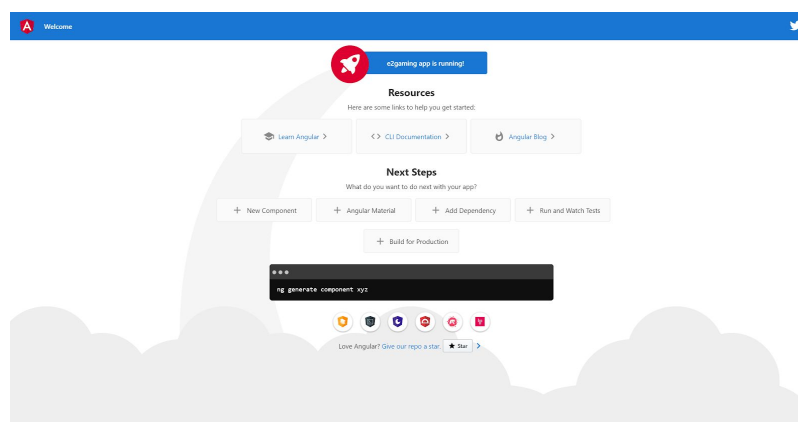
```
C:\Users\eugen\Proyectos>ng new e2gaming
? Would you like to add Angular routing? Yes
? Which stylesheet format would you like to use? CSS
CREATE e2gaming/angular.json (3609 bytes)
CREATE e2gaming/package.json (1294 bytes)
CREATE e2gaming/README.md (1026 bytes)
CREATE e2gaming/tsconfig.json (543 bytes)
CREATE e2gaming/tslint.json (1953 bytes)
```

And running

```
C:\Users\eugen\Proyectos\e2gaming>ng serve
10% building 3/3 modules 0 active @wdm: Project is running at http://localhost:4200/webpack-dev-server/
i @wdm: webpack output is served from /
i @wdm: 404s will fallback to //index.html

chunk {main} main.js, main.js.map (main) 50.4 kB [initial] [rendered]
chunk {polyfills} polyfills.js, polyfills.js.map (polyfills) 269 kB [initial] [rendered]
chunk {runtime} runtime.js, runtime.js.map (runtime) 6.15 kB [entry] [rendered]
chunk {styles} styles.js, styles.js.map (styles) 9.71 kB [initial] [rendered]
chunk {vendor} vendor.js, vendor.js.map (vendor) 4.09 MB [initial] [rendered]
Date: 2020-05-08T11:26:12.109Z - Hash: f15059b52d669d62a475 - Time: 5621ms
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **
i @wdm: Compiled successfully.
```

If everything has been satisfactory, in the browser we can see this window:

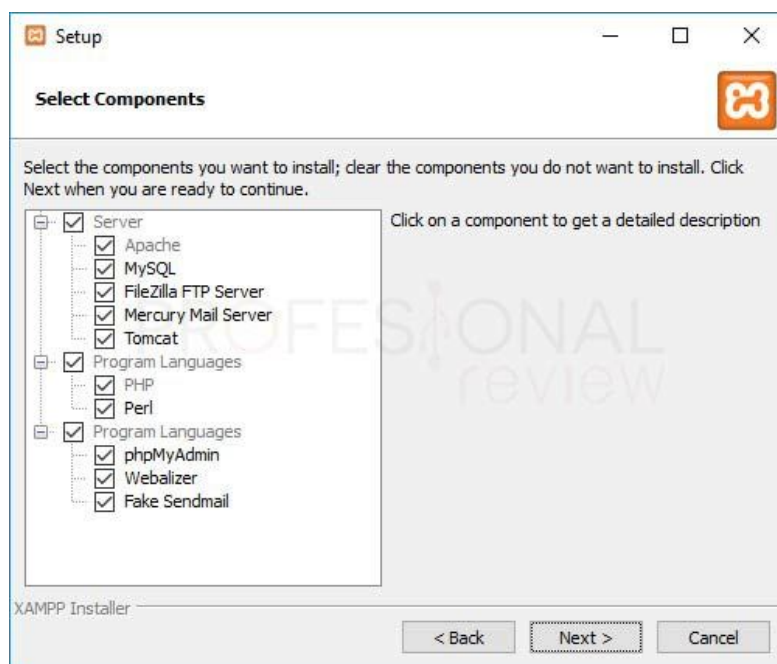


## Installation Xampp

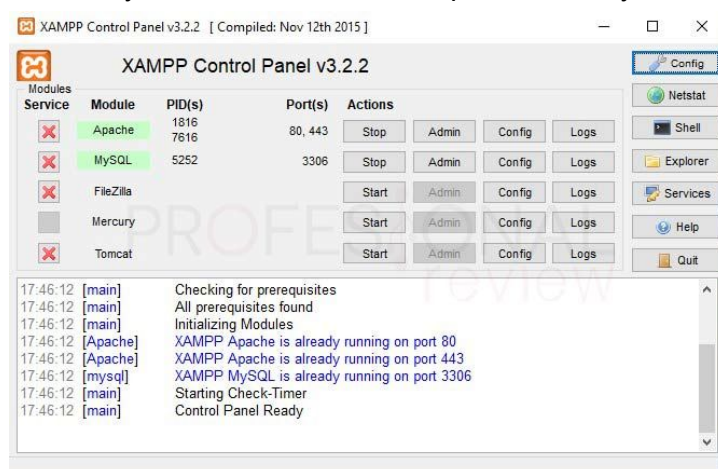
From the official website we downloaded the executable for our so



Select all components:



After the installation, we can open the xampp control panel and we can activate the necessary services, in our case, Apache and MySQL:



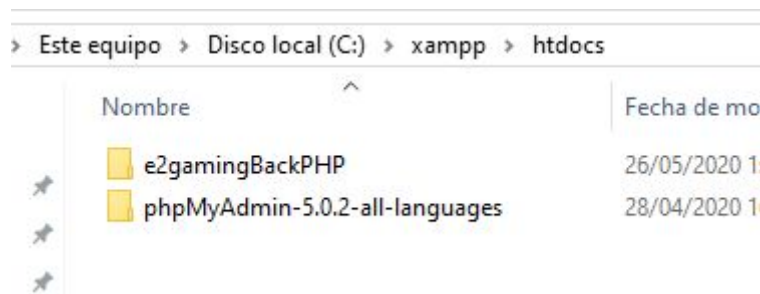
## Installation PhpMyAdmin

To access the PhpMyAdmin database manager, you must download it from the official website:

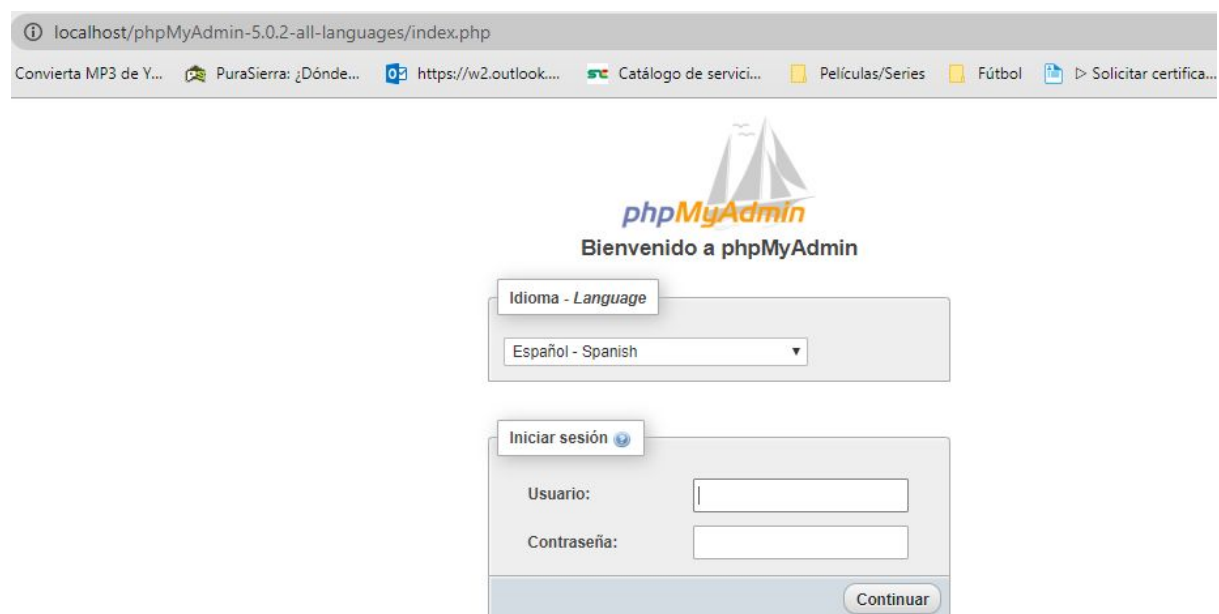


### Download

The folder that has been downloaded must be placed, next to the server folders (PHP), in the folder C:\ -> Xampp -> htdocs.



Now we can access through the browser by putting localhost and the name of the folder in the url:



You will be logged in with the user 'root' and the password 'rootroot'.

# Error Log

We will use this section to comment on the mistakes we faced and the solutions we thought most appropriate at the time.

## Errors

### Error #1

I think the most logical thing to do is to start with the biggest change we had to make: the Backend. We wanted to use Laravel but we had to settle for using simple PHP, due to the complicity of the framework.

### Error #2

A rather silly but annoying mistake, in our opinion, was that the modal we used to login was not completely hidden once you had entered the user's page, that is, it redirected you but the page looked grayish because of that modal.

### Error #3

We had two different mistakes but they happened for the same reason, so I'll put them together:

1. The first one was the session control, it didn't get the user logged in, it entered his session and he could only enter the pages for which he had privileges.
2. The second was the method of reading user, which wanted to use the administrator control panel to display all users in a table

### Error #4

We had an error in the login and then in the logout, due to a function that has Angular called 'localStorage'. We thought it was a good idea to use this method to store things like the role or nickname of the user who was logging in.

## Solutions

### Solution #1

With the bad luck we had to start the alarm state before we were taught how to use Laravel, we didn't feel safe and confident with this tool. Instead we had a controller and a PHP model which we already knew and decided to use that.

### Solution #2

We came up with the idea to use JQuery code, and make a hide after the event. For Angular to accept it, we had to install three packages:

- `npm install -D @types/bootstrap`
- `npm install --save-dev @types/jquery`
- `npm install --save jquery`

That's how it worked.

### **Solution #3**

We failed to put in the method that made the http call to the server, the sentence at the end `{withCredentials: true}`, in both cases

### **Solution #4**

Teacher Marisa recommended us not to use that method, and that we could call the server every time we need it to ask for the role and nick of the logged-in user.

# Mockups

This is the gaming page where you can reserve a game, reserve a console, register in tournaments, see the news, see the games available apart from contacting us and see us located.

Reserve	Rent	Tournaments	News	List	Contact	Who we are	Partner
---------	------	-------------	------	------	---------	------------	---------

Login	Register
-------	----------

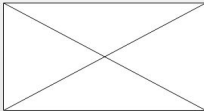
Breadcrumbs1Breadcrumbs2

## Gaming Zone

### Rent a game

Lorem ipsum dolor sit amet, sapien etiam, nunc amet dolor ac odio mauris justo. Luctus arcu, uma praesent at id quisque ac. Arcu es massa vestibulum malesuada, integer vivamus elit eu mauris eus, cum eros quis aliquam wisi. Nulla wisi laoreet suspendisse integer vivamus elit eu mauris hendrerit facilisi, mi mattis penatur aliquam pharetra eget.

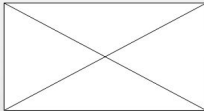
Button



### Rent a console

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Button



### Tournament registration

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▼

### Last news

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← →

This is the section to reserve a place in our gaming area to enjoy the desired console and game

Reserve	Rent	Tournaments	News	List	Contact	Who we are	Partner
---------	------	-------------	------	------	---------	------------	---------

Login	Register
-------	----------

Breadcrumbs1Breadcrumbs2Breadcrumbs3

## Book

Name and surname

Mail

Console and game

This is a calendar →

(Only members)

Book

**This is the section to rent a game so you can take it home**

Resene	Rent	Tournaments	News	List	Contact	Who we are	Partner
--------	------	-------------	------	------	---------	------------	---------

Breadcrumbs1	Breadcrumbs2	Breadcrumbs3
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## Rent

Name and surname

Mail

Name

This is a calendar—>

(Only members)

This is the section where you can sign up for a tournament that we have announced

[illegible]

This is the section to be able to list all the available consoles and the games for those consoles

[illegible]

# Self-evaluation

## Evaluation Eugenio Fresneda

It has been a project with a lot of effort and many hours of work, first of all I want to thank Esteban for his patience because the first days were complicated for me because of the lack of knowledge.

The truth is that I can say for sure that I am proud of the final result since we have taken care of every last detail and we have dedicated many hours to it both Esteban and I. I have acquired a lot of knowledge in the course of the project from basic things to advanced things. I've enjoyed every minute of the project, really, it's been a very good experience and we've had a great time. It's been a very nice experience.

## Evaluation Esteban Valero

At the beginning of the project it was assumed that Eugenio would be a burden to the project and that I would be delayed in all the tasks. I can firmly say that this has not been the case, that he has made an effort as I expected of him and has dedicated more hours to the project than belonged to him.

I'm not going to say that he has been able to work at the same level as me because all the knowledge I have acquired during the course, he didn't have it before starting, but he has been acquiring it during the project and every day that passed giving more level than the previous one.

I am very proud of my partner and I would choose him again for any other kind of project. I don't know if this is the most appropriate thing for a self-evaluation of a project of such magnitude, but many teachers doubted Eugenio and it didn't seem fair because they didn't know how to value him.

Having said that, as a self-evaluation, I can say that due to our perfectionism we have tried to fix and change even the smallest detail until it was to our liking. That has made a project that we are very proud of, and there is nothing more beautiful than being happy with your work and thinking that you have given 100% of yourself to meet the objectives.



# Annex

## PHASE 1: BUSINESS PROJECT

### Needs to be covered / Market opportunities

Our intention is that users find a place for entertainment, leisure and fun.

We believe that we have a good market opportunity since our service is exclusive in its field as it is the only place that offers a bar with a theme of anime and video games with a computer room and video consoles and the possibility of renting the games and take them home

### Innovations that incorporates / Differentiating aspects of the competition

It is the first venue divided into two sections that incorporates a gaming bar and combines it with all types of consoles to play online and make tournaments.

### Definition of the Mission, Vision and Values of the Company

Mission: Leisure and entertainment for gaming lovers.

Vision: To expand our business throughout the country and continent.

Company values: security, variety, entertainment, reliability, responsibility, quality and commitment to our customers.

### Staff / assignment of tasks / portfolio of services / schedule

Personal:

2 Waiters

Receptionist

2 Gaming Zone Managers

1 security guard in the entrance corridor.

Tuesday to Sunday: 12:00 a.m. to 03:00 a.m.

Monday: Local Closed

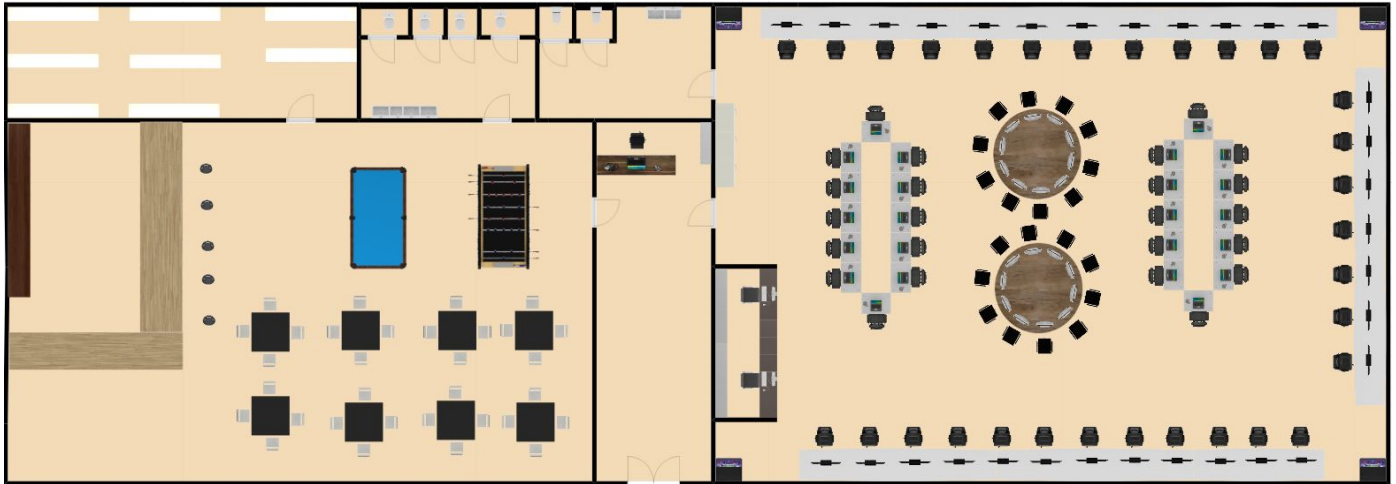
Services:

Leisure.

Bar service.

Web page.

## Map of the premises



## Basic investment required

Local	700,00 €
<u>Estanterias almacen</u>	712,00 €
<u>Estanteria Barra</u>	129,96 €
Barra	999,95 €
<u>Taburetes Altos</u>	99,95 €
Billar	479,99 €
<u>Futbolin</u>	249,00 €
<u>Mesas</u>	80,00 €
<u>Sillas</u>	192,00 €
Lavabos	280,00 €
<u>Bebidas</u>	400,00 €
<u>Vajilla</u>	50,00 €
WC	484,00 €
<u>Maquinas Recreativas</u>	2.116,00 €
<u>Maquinas Expendedoras</u>	825,00 €
<u>Estanteria Juegos</u>	260,00 €
<u>Mesas</u>	833,00 €
<u>Mesas de ordenador</u>	1.199,76 €
<u>Sillas</u>	3.899,22 €
<u>Televisores</u>	7.719,00 €
<u>Pcs</u>	10.000,00 €
<u>Play Station 4</u>	4.500,00 €
<u>Xbox One</u>	3.500,00 €
<u>Wii</u>	545,00 €
<u>Nintendo Switch</u>	1.500,00 €
<b>TOTAL</b>	<b>41.753,83 €</b>

## PHASE 2: ANALYSIS OF THE EXTERNAL FACTORS OF BUSINESS ACTIVITY

### Demographic framework - economic

We have located our premises in Alcolea Street, 70, in the neighbourhood of Sants, five minutes from Sants-Estació and three minutes from the subway L1 Plaça de Sants. We have chosen the district of Sants because it is one of the most populated districts of Barcelona and where the population is more predominant, corresponding to the age range we are looking for.

### Legal framework

In the Annex II, paragraph III.2.8(f) is established:

*"(f) Pubs and bars with music: fixed public establishments, independent or aggregated with others of different economic activity, which, duly authorised by the Municipalities, are permanently dedicated to serving the public drinks and, where appropriate, cold or hot tapas to be consumed inside the premises with pre-recorded music in the background, the emission of which, in no case, may exceed 60 decibels measured 1.5 metres from the speaker or speakers, and without public dancing being performed or held in said establishment. It is therefore forbidden for this type of establishment to serve food and drink outside its premises".*

*Decree 112/2010. Regulation of Public Shows and Recreational Activities*

*Art. 53. Limitations on access for minors.*

*1. Minors are prohibited from entering the following establishments or open spaces for public entertainment or recreational activities:*

*(a) In gaming and betting establishments, in accordance with the provisions of their specific regulations*

*(b) In establishments where activities of a sexual nature are carried out.*

*2. Persons under 16 years of age are prohibited from entering discotheques, party halls, dance halls, music bars, concert halls, concert cafés and theatre cafés, except when they are performing live and are accompanied by parents or guardians. In this case, at the end of the performance, minors may not remain in the establishment. Persons under 18 years of age are prohibited from entering special regime establishments. Persons under 14 years of age are prohibited from entering youth clubs. Excluded from this prohibition are musical restaurants and party halls with shows and concerts for children and young people.*

*3. In public shows and recreational activities where minors are allowed to enter, the regulations that impose certain restrictions for their protection must be complied with in all cases, and in any case the following rules:*

*(a) Those relating to the protection of health*

- (b) Those relating to the prohibition of the use of amusement machines with prizes or games of chance.
- (c) Those relating to time restrictions affecting minors.
- (d) rules on the protection of children and young people

## Competitive environment

In Barcelona there are only two similar places that could compete with us:

1. Elite Gaming Center Barcelona is located next to the Rocafort L1 subway stop which is next to Plaza España. It offers a place with several tables with PCs and video consoles.
2. 247Gaming Barcelona is located in Poblenou and offers the same service as Elite Gaming.

## Business and competition location map




The closest competition venue we have is Elite Gaming which is just a few miles away.

Type of market and evolution of the sector

The evolution of the video game industry has evolved in this way:

*Evolución de los ingresos del sector de videojuegos en España 2016-2020  
(en millones de euros)*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR 15-20
 <b>Videojuegos</b>											
■ <b>Publicidad en videojuegos</b>											
Total publicidad en videojuegos	24	26	27	28	31	33	35	37	40	44	7,4%
■ <b>Consumo de videojuegos</b>											
- <b>Juegos casuales/sociales</b>											
Apps	172	184	196	208	219	228	238	248	258	268	4,1%
Juegos de navegador	44	46	48	49	48	48	48	47	47	47	-0,8%
Total juegos casuales/sociales	216	230	244	257	267	276	286	295	305	314	3,3%
- <b>Juegos tradicionales</b>											
■ <b>Juegos de consola</b>											
Juegos digitales de consola	37	44	52	60	70	79	89	99	109	117	11,1%
Juegos físicos de consola	478	405	367	368	356	355	354	353	352	351	-0,3%
Juegos online de consola	6	9	13	26	32	38	44	50	56	62	14,3%
Total juegos de consola	520	457	431	454	457	472	486	501	516	530	3%
■ <b>Juegos de PC</b>											
Juegos digitales de PC	10	15	16	18	19	19	20	20	20	19	0,8%
Juegos físicos de PC	30	23	20	19	18	17	16	15	14	13	-6,4%
Juegos online de PC	66	69	75	81	85	89	93	98	102	106	4,4%
Total juegos de PC	106	107	111	118	122	126	129	132	135	138	2,6%
Total juegos tradicionales	626	564	542	571	579	597	616	634	652	668	2,9%
Total consumo de videojuegos	842	795	787	828	846	874	901	929	956	982	3%
<b>Total Videojuegos</b>	<b>866</b>	<b>820</b>	<b>814</b>	<b>857</b>	<b>877</b>	<b>906</b>	<b>936</b>	<b>966</b>	<b>996</b>	<b>1.026</b>	<b>3,2%</b>

Market segment / Microenvironment: customer analysis / supplier analysis

Our business that develops in the Gaming world that each year surpasses records in either sales or popularity draws the attention of customers ranging from 12 years old to 30 years old and above.

The suppliers of the bar part will be the whole environment of the hotel and catering industry whether drinks, food, etc. And the Gaming part we will have several partners from other companies to help us with the issue of consoles, vending machines and pcs.

Competition marketing policies (products, prices, communication, location and distribution)

### Elite Gaming Center Barcelona

Located at 84 Sepulveda Street, 08015

Subway line: L1 Rocafort and L3 Poble Sec

Bus line: L94, L95, 41,50 and H12

They have a prepaid rate of 1h for 2

They also have the following bonuses:

**Bonus of 10 €** - 5 Hours + 1 Monster Gift

**Bonus of 25 €** - 12 Hours + 1 Monster Gift + 2 Extra Hours

**Bonus of 50 €** - 25 Hours + 8 Hours Gift

## **247 Gaming**

Located in Àvila street, 112, 08018

Subway line: L4 Llacuna and L1 Marina

Bus line: 92, 192, 6 and H14

They have a prepaid rate of 1h for 3

They also have the following bonuses:

**Bonus of 5 €**- 2 Hours

**Bonus of 10 €**- 5 Hours

**Bonus of 20 €**- 12 Hours

**Bonus of 50 €** - 33 Hours

## PHASE 3: MARKETING PLAN

### Diagnosis DAFO

	Elementos Internos <b>EMPRESA</b> (Microentorno)	Elementos Externos <b>ENTORNO</b> (Macroentorno)
Puntos <b>NEGATIVOS</b>	<b>Debilidades</b> <ul style="list-style-type: none"><li>• Ser nuevo en el mercado</li><li>• Falta de recursos economicos</li></ul>	<b>Amenazas</b> <ul style="list-style-type: none"><li>• Las entidades financieras no dan créditos</li><li>• Competencia consagrada en el mercado</li></ul>
Puntos <b>POSITIVOS</b>	<b>Fortalezas</b> <ul style="list-style-type: none"><li>• Preparación técnica</li><li>• Experiencia en el sector</li></ul>	<b>Oportunidades</b> <ul style="list-style-type: none"><li>• Poca oferta en este ámbito</li><li>• Muchos clientes potenciales</li></ul>

#### Failures

Our first weakness is being new to the market. It influences that the first customers that come, will not have the same confidence as with another business that takes more time. Any business project, at the beginning has to make a space in the market and that is a complicated and laborious work.

In addition, the lack of economic resources is not to say the most important problem for a business that is starting.

#### Threats

Nowadays the financial entities ,that is, the banks give few credits and less for a business that wants to start in the market.

Another obvious threat is businesses that offer more or less the same service as us and have been in the market longer. It would be necessary to investigate their offers and their promotions to make a competition where we attract their clients.

### **Strengths**

We specialize in this field. Apart from studies, also because it is our hobby.

We have experience in the hotel and catering industry and trade so we could defend ourselves in this sector with the knowledge we have acquired.

### **Opportunities**

As much as one of our greatest threats is the companies located in Barcelona, it is true that there are only two and distributed in an area far from ours, so direct competition affects us very slightly.

The video game market has potentially grown in recent years, and continues to grow more and more, so we can ensure that customers will not miss out.

### Strategic objectives: sales forecast

The main objective of our project is to establish ourselves in the market and to make our business model known. In other words, we want people to know as soon as possible what kind of establishment we have and how it works.

As longer term goals we want to establish a selection of fixed services and add new ones little by little, and withdraw them or not, depending on the acceptance of the clients. We are also considering having a presence in both social networks and the internet and creating our own website.

### Action plans: marketing policies

#### - of products

Our products will be fixed, as they will consist of the pub drinks and gaming vending machines. What will vary will be the video games, since we will have to go updating them whenever it is necessary. Our services at the beginning will be fixed but depending on the acceptance of the customers will vary and / or increase.

#### - of localization and distribution

By being located in the center of Barcelona we will gain many points in terms of importance, since Barcelona is one of the most important cities in Spain.

#### - of prices



We will try to have affordable and competitive prices with the other entities that are dedicated to the same thing. Our prices per hour will be around 1,50 ? and 2 ? and we will try to make the offers that we offer the most suitable to the people's economy.

- of communication

Most new services and promotions and other news will be communicated via the Internet on our official website or on social networks. If the business prospers we will think about putting ads on radio or television and place some billboard around our business.

#### Relationship with customers. Monitoring of the Marketing Plan and its impact

We thought we could check the effectiveness and performance of our business by surveying our first customers. This survey will be carried out in the first weeks of the opening of the business. And the contact with the customers would continue by means of e-mails or phone calls or through our website to inform them of new services or products.

Periodically we will make a marketing plan to check that the objectives we have set have been achieved.

## PHASE 4: ECONOMIC AND FINANCIAL PLAN

### Initial investment plan

1	Immobles i terrenys ( <u>Alquiler</u> )	
2	Maquinària i eines	30 €
3	Instal·lacions	1500 €
4	Elements de transport	
5	Equips informàtics	30000 €
6	Aplicacions informàtiques	350 €
7	Mobiliari i eines	8500 €
8	Drets de traspàs, patents i marques	
9	Dipòsits i fiances	700 €/entrada
10	Despeses de constitució i posada en marxa	2000 €
11	Existències	1200 €
12	Altres despeses	1300 €
13	Provisió de fons (20% de la inversió inicial)	9000 €
<b>TOTAL INVERSIONS</b>		<b>55000 €</b>

# Treasury Forecast

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Balance point

Sales margin = Annual income - Variable costs / Annual income

Commercial Margin =  $572888 - 58944 / 572888 = 0.90$

Breakeven point = Annual fixed costs / Sales margin

Break-even point =  $225880 / 0.90 = 250977.8$

Financing plan

1	Recursos propis	
2	Subvencions	
3	Capitalització de l'atur	
4	Crèdits o préstecs	55000 € (Banco Santander)
	4.1. A llarg termini (> 1 any)	
	4.2. A curt termini (< 1 any)	
5	Altres	
TOTAL FINANÇAMENT		55000 €

## PHASE 5: LEGAL FORM OF THE COMPANY

Choice of legal form for the company

Private Civil Society (S.C.P.)

Heading IAE (Tax on Economic Activities)

Items within the Group 673

Here you can see which headings belong to the chosen level, in this case:

Group 673: In cafes and bars, with and without food.

Section 673.1 Special category

Section 673.2 other cafes and bars

The activity of retail trade of electrical material and small appliances, section 653.2, is one of the activities included, by article 2.1 of the Order EHA/3413/2008

C.N.A.E (Classificació Nacional d'Activitats Econòmiques):

### **Catering.**

561.- Restaurants and food stands

5610.- Restaurants and food stands

562.- Provision of prepared meals for events and other catering services

5621.- Provision of prepared meals for events

5629.- Other food services

563.- Beverage establishments

5630.- Beverage establishments

### **Computing and communications**

5811.- Book publishing

5812.- Edition of directories and mailing lists

5813.- Newspaper publishing

5814.- Magazine publishing

5819.- Other publishing activities

5821.- Video game editing

5829.- Edition of other software

5912.- Motion picture, video and television programme post-production activities

5914.- Film exhibition activities

5915.- Motion picture and video production activities

5916.- Television programme production activities

5917.- Motion picture and video distribution activities

5918.- Television programme distribution activities

5920.- Sound recording and music editing activities

6010.- Broadcasting activities

6020.- Television programming and broadcasting activities

6110.- Cable telecommunications  
6120.- Wireless telecommunications  
6130.- Satellite telecommunications  
6190.- Other telecommunications activities  
6201.- Computer programming activities  
6202.- Computer consultancy activities  
6203.- Management of IT resources  
6209.- Other information technology and computer related services  
6311.- Data processing, hosting and related activities  
6312.- Web portals  
6391.- News agency activities  
6399.- Other information services n.e.c.

#### Tax regime

General regime with a VAT of 21%

Personal Income Tax