

# ER: Requirements Specification Component

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## A1: GameSpace

GameSpace is your gateway to the world of gaming, offering a convenient way to explore and acquire a wide variety of games across genres and game consoles, all in one place. In an era where gamers want something centralized, user-friendly, and personalized gaming experiences, we are here to provide just that.

Our platform offers a navigation system, allowing you to easily browse and discover games categorized by genre and platform, or simply filter them using the filter tool. Whether you are in a hurry for a specific title or just exploring new games, our search bar and filter tool will ensure that you find what you are looking for. Each game has its dedicated page, providing you with essential information and some valuable user reviews of your new wished game. Gain insights from other gamers and make informed decisions before adding games to your library.

We believe in making your gaming experience unique. Our recommendation engine analyzes your gaming preferences and past purchases to suggest some new titles that you might like. Regarding the payment method, user can add credits to his account, and once the user purchases its cart, it will be subtracted on his account.

Users will be distributed in three groups with different permissions: administrators, visitors and authenticated users. An administrator will have all the privileges of access and modification, such as update available products and delete offensive reviews, however, this user won't be allowed to purchase or review any item. In addition, the administrator will manage users accounts, like block and unblock accounts. A visitor user will only be able to navigate through the website, seeing all the content like products, reviews, and pages, without being able of making purchases. Finally, an user can gain perks once done login authentication, being an authenticated user and he will have privileges not only to make purchases and review items but also to assemble lists and manage their personal information. Authenticated user become a Buyer once finish shopping.

Never miss out on the bestsellers and your most-wanted titles! Add games to your wish list for future reference, and when you're sure of your choice, simply add them to your cart. Our user-friendly cart ensures a hassle-free checkout process.

## A2: Actors and User stories

This artefact contains the actors and their user stories of this system, with the purpose of showing the functionalities and requeriments that our application will have.

### 1. Actors

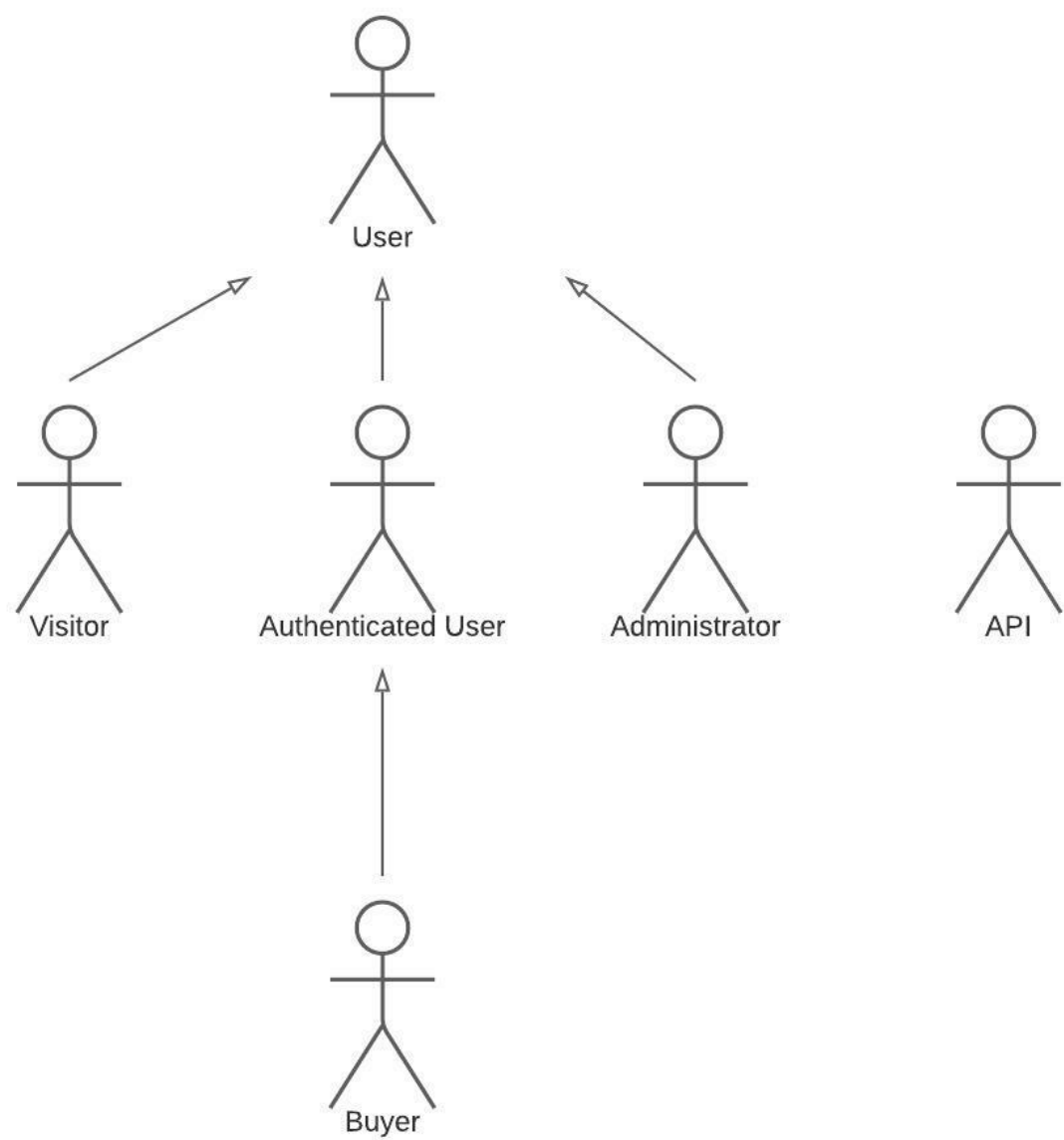


Figure 1: Actors

Identifier	Description
User	Generic user that has access to public information such as search and view items.
Visitor	Unauthenticated user that can register itself or sign-in the system.
Authenticated User	User that can make purchases, manage their personal information, log out of the account, add items to favorites.
Buyer	User that has made purchases. Can check their purchase history, track their order, review an item that they have bought.

Identifier	Description
Administrator	Authenticated user that is responsible for the management of products and users and supervisory and moderation functions, like delete offensive reviews.
API	External OAuth APIs that can be used to register or authenticate into the system.

Table 1: Actors' descriptions

2. User Stories

2.1. User

Identifier	Name	Priority	Priority
US01	Product Details	High	As a User, I want to be able to see the product details, so that I can see a detailed representation of it.
US02	Search products	High	As a User, I want to be able to search for products, so that I can find what I'm looking for.
US03	Browse Product Categories	Medium	As a User, I want to be able to view products from a selected category, so that I can explore all the products availbe able from that category.
US04	Search by Filters	Medium	As a User, I want to be able to filter with some specific properties, so that I can narrow down my search.
US05	View Reviews	Medium	As a User, I want to be able to view a product's reviews, so that I can get a sense of the general opinion on it.
US06	Home Page	Medium	As a User, I want to be able to have access to the home page, so that I can have a brief presentation of the website.
US07	About Page	Medium	As a User, I want to be able to see an About page, so that I can see a description of the website and its creators.
US08	FAQ Page	Medium	As a User, I want to be able to see a FAQ page, so that I can get quick answers to commom questions.
US09	Consult Contacts	Medium	As a User, I want to be able to access contacts, so that I can contact the platform owners.*
US10	See User Profile	Medium	As a User, I want to be able to view users' profiles, so that I can see other users reviews and information.
US11	Search User Profile	Medium	As a User, I want to be able to search user profiles, so that I can find specific users.
US12	Sorting options	Low	As a User, I want to be able to sort with some specific properties, so that I can easily see shop items.
US13	View Recommendations	Low	As a User, I want to be able to view recommended products, so that I can view products suitbe able for me.

Table 2: User's user stories

## 2.2. Visitor

Identifier	Name	Priority	Description
US14	Sign-in	High	As a Visitor, I want to be able to authenticate into the system, so that I can access privileged information.
US15	Sign-up	High	As a Visitor, I want to be able to register myself into the system, so that I can authenticate myself into the system.
US16	Recover password	Medium	As an Visitor, I want to be able to recover my password, so that I'm not locked out of my account if I forget it.
US17	External API Sign-in	Low	As a Visitor, I want to be able to register a new account linked to my Google account, so that I can avoid to create a whole new account to use the platform.
US18	External API Sign-up	Low	As a Vistor, I want to be able to sign-in through my Google account, so that I can authenticate myself into the system.

Table 3: Visitor's user stories

## 2.3. Authenticated User

Identifier	Name	Priority	Description
US19	Add to Shopping Cart	High	As an Authenticated User, I want to be able to add products to the shopping cart, so that I can buy them later.
US20	Manage Shopping Cart	High	As an Authenticated User, I want to be able to manage my shopping cart, so that I can decide what I want to buy.
US21	Log out	High	As an Authenticated User, I want to be able to log in and out of my account, so that I can protect my personal information and ensure no unauthorized access to my account.
US22	View profile	High	As an Authenticated User, I want to be able to view my profile, so that I can see my personal data
US23	Edit profile	High	As an Authenticated User, I want to be able to edit my profile, so I can alter my personal data
US24	Delete account	High	As an Authenticated User, I want to be able to delete my account, so that I can remove my personal data from the site when I don't want to use it anymore
US25	Add wishlist	Medium	As an Authenticated User, I want to be able to add products to my wishlist, so that I can keep track of products I'd like to buy.

Identifier	Name	Priority	Description
US26	View wishlist	Medium	As an Authenticated User, I want to be able to view my wishlist, so that I can see what products I have previously saved there.
US27	Remove from wishlist	Medium	As an Authenticated User, I want to be able to remove products from my wishlist, so that I can stop keeping track of products I'm not interested in anymore.
US28	Update password	Medium	As an Authenticated User, I want to be able to update my password, so that I can enhance the security of my account and protect it from unauthorized access.
US29	Review voting	Medium	As an Authenticated User, I want to be able to vote on reviews, so that other users know which reviews are more useful.
US30	View Notifications	Low	As an Authenticated User, I want to be able to view my notifications, so that I'm kept up to date about changes that might concern me.
US31	Product price change	Low	As an Authenticated User, I want to be able to receive a notification if a product in my shopping cart or wish list changes price, so that I'm aware that the price of the product was altered
US32	Product availability	Low	As an Authenticated User, I want to be able to receive a notification when a product in my cart or wish list is available again, so that I can order that product

Table 4: Authenticated User's user stories

## 2.4. Administrator

Identifier	Name	Priority	Description
US33	Unban Account	Medium	As an Admin, I want to be able to unban a user that was previously banned, so that I can provide a second chance to a previously misbehaving user.
US34	Manage Catalog	Medium	As an Admin, I want to be able to add, edit and remove items from the shop's catalog, so that users get an updated list of the item's being sold.
US35	Manage Item Category	Medium	As an Admin, I want to be able to manage the category of an item, so that users may more easily find what they are looking for.
US36	Delete Review	Medium	As an Admin, I want to be able to delete an item review, so that the platform is free from misinformation and inappropriateness.
US37	Ban Account	Medium	As an Admin, I want to be able to ban a user's account (temporarily or permanently), so that I can punish misbehaving users.

Identifier	Name	Priority	Description
US38	Manage Stock	Medium	As an Admin, I want to be able to be be able manage the shop's stock, so that users are aware when an item is sold off.
US39	View Users' Purchase History	Medium	As an Admin, I want to be able to view the users' purchase history, so that I can check what the users are buying.
US40	Manage Order Status	Medium	As an Admin, I want to be able to manage the status of orders, so that I can monitor the sale.
US41	Manage Item Description	Medium	As an Admin, I want to be able to be be able manage the descriptions of items, so that users get an accurate representation of what is being sold.

Table 5: Administrator's user stories

## 2.5. Buyer

Identifier	Name	Priority	Description
US42	Review a game	High	As a Buyer, I want to be able to write a review of a game that I have bought, so that other users can see what I thought of the game.
US43	Give games a score	High	As a Buyer, I want to be able to rate a game from 1 to 5, so that other users have an idea of the quality of the game.
US44	Delete a game score	High	As a Buyer, I want to be able to delete the score I've given to a game, so that other users don't see it.
US45	Check purchase history	High	As a Buyer, I want to be able to view my purchase history, so that I can check my past purchases.
US46	Delete a game review	High	As a Buyer, I want to be able to delete a previous review I wrote about a game, so that other users can't read it.
US47	Edit a game review	Medium	As a Buyer, I want to be able to edit a review on a game that I bought, so that I can alter it in case I change my mind on the game.
US48	Payment approval	Low	As a Buyer, I want to be able to receive a notification when a payment gets approved, so that I know that my payment process was successful.
US49	Cancel order	Low	As a Buyer, I want to be able to cancel an order, so that I can get my money back if I accidentally bought an item I don't want and it hasn't been delivered yet.

Identifier	Name	Priority	Description
US50	Change in order status	Low	As a Buyer, I want to be able to receive a notification about changes in the order processing stage, so that I know what my order status is.
US51	Track order	Low	As a Buyer, I want to be able to track an order, so that I know the status of a purchased product.
US52	Address options	Low	As a Buyer, I want to be able to choose which of my addresses my order is sent to, so that it is sent to the most convenient place for me.

Table 6: Buyer's user stories

### 3. Supplementary Requirements

#### 3.1. Business rules

Identifier	Name	Description
BR01	Deleted item history	The description and statistics of an item (name, description, reviews, score, etc) must be maintained even if it was deleted from the store in order to keep the sales record.
BR02	Review Date	The review date of an item must be greater than the purchase date of the item by the user.
BR03	Item score	All shop items have a score, a mean of all its user scores.
BR04	Deleted user history	An archive of a user's purchase history is maintained even if the user has deleted their account, in order to preserve data consistency outside the user themselves.
BR05	Order cancellation restriction	A non game order can only be canceled before it has been delivered. After being delivered, it is only possible to request a refund.
BR06	Game refunds	A game can be refunded at any time, independent from the date that it was bought and how many hours the user played the game, but the user will only receive 50% from the value that paid for that game.
BR07	Difference between user and admin accounts	Admin's accounts are independent of the users accounts, so admins cannot buy products.
BR08	Single review and score	An authenticated user can only make one review and one score per item acquired.
BR09	Review voting	A user can't vote on his own review.

Table 7: Business rules

3.2. Technical requirements

Identifier	Name	Description
TR01	Availability	The system must be available 99 percent of the time in each 24-hour period.
TR02	Accessibility	The system must ensure that everyone can access and use the website, regardless of handicaps or browser of choice.
TR03	Usability	<b>The system should be simple and easy to use. The platform is meant for users of all ages and levels of technical knowledge, so ease of use is very important.</b>
TR04	Performance	<b>The system should have response times shorter than 2 s to ensure the user's attention. The system should be accessible without the need to install other software, adopting standard web technologies.</b>
TR05	Web application	<b>The system should be implemented as a web application with dynamic pages (HTML5, JavaScript, CSS3 and PHP). The system should be platform independent to allow for a wider user base.</b>
TR06	Portability	The server-side system should work across multiple platforms (Linux, Mac OS, etc).
TR07	Database	The PostgreSQL database management system must be used.
TR08	Security	The system shall protect information from unauthorized access through the use of an authentication and verification system.
TR09	Robustness	The system must be prepared to handle and continue operating when runtime errors occur.
TR10	Scalability	The system must be prepared to deal with the growth in the number of users and their actions.
TR11	Ethics	The system must respect the ethical principles in software development (for example, personal user details, or usage data, should not be collected nor shared without full acknowledgement and authorization from its owner).

Table 8: Technical requirements

We chose these three requirements (TR03, TR04 and TR05) as the most important ones since we consider them to be the most important for the user's quality of life while using the site, for the reasons explained in their description: site responsiveness, intuitiveness and flexibility across platforms.

3.3. Restrictions

Identifier	Name	Description
C01	Deadline	The system should be ready to be used at the end of the semester.



Table 9: Restrictions

# A3: Information Architecture

This artefact presents an overview of the system and how it interacts from the viewpoint of the users. It aims to help to identify and describe the user requirements, raise new ones, clarify the information hierarchy and show an early simulation of some of the main User Interfaces. This artefact includes a sitemap and three wireframes.

## 1. Site Map

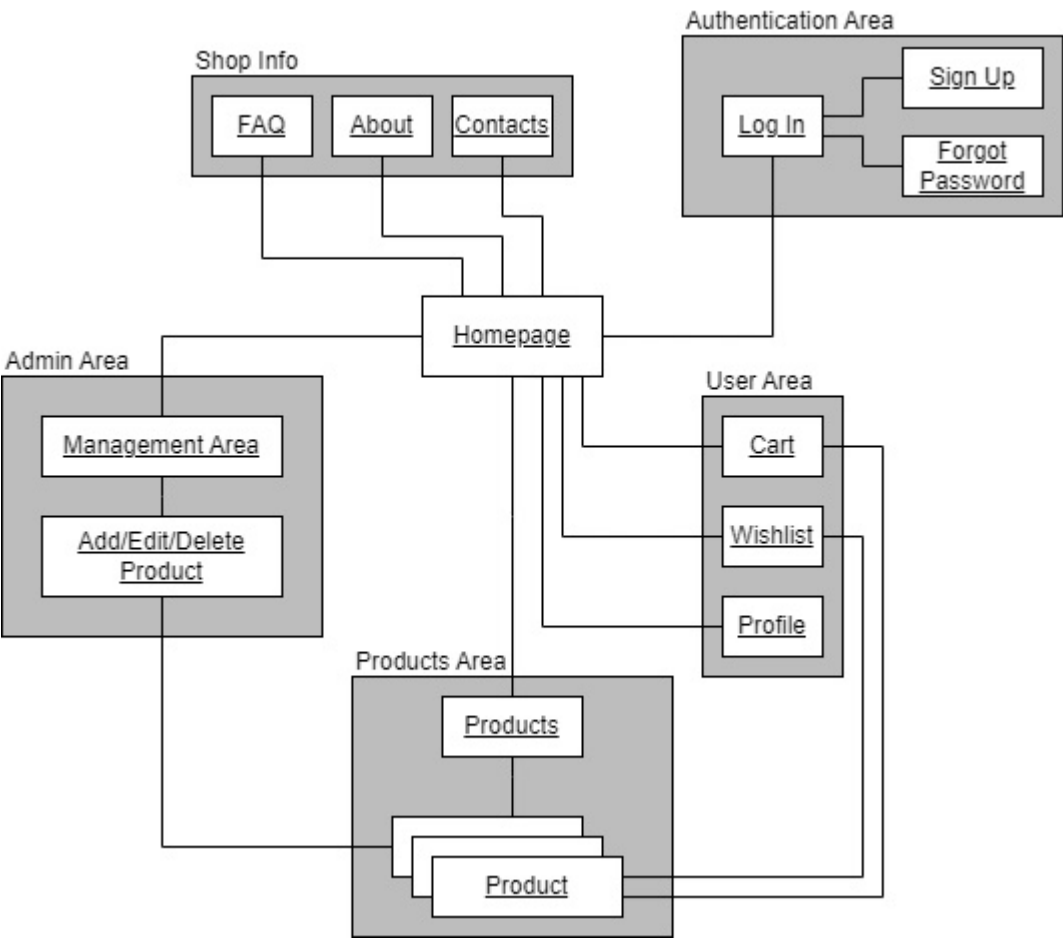


Figure 2: Sitemap

2. Wireframes

UI01: Main menu

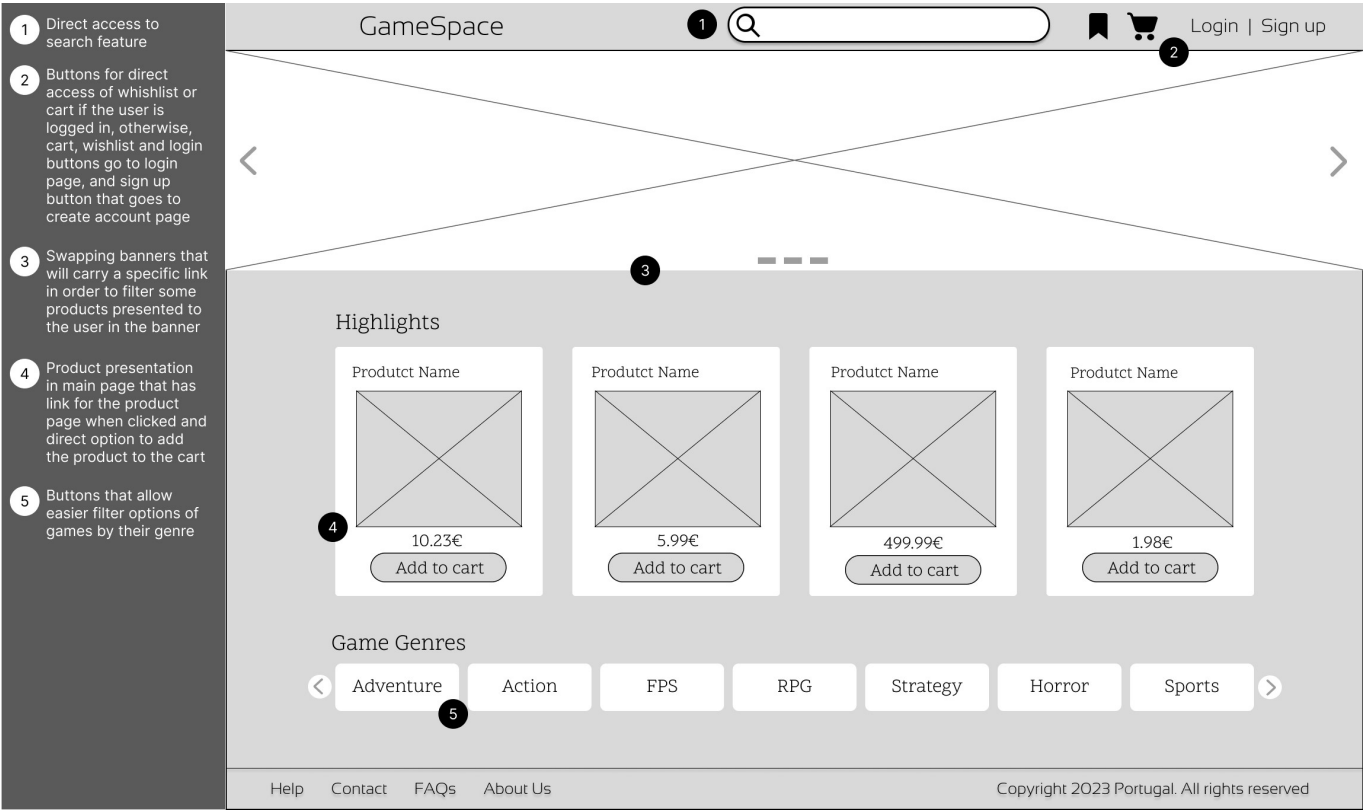
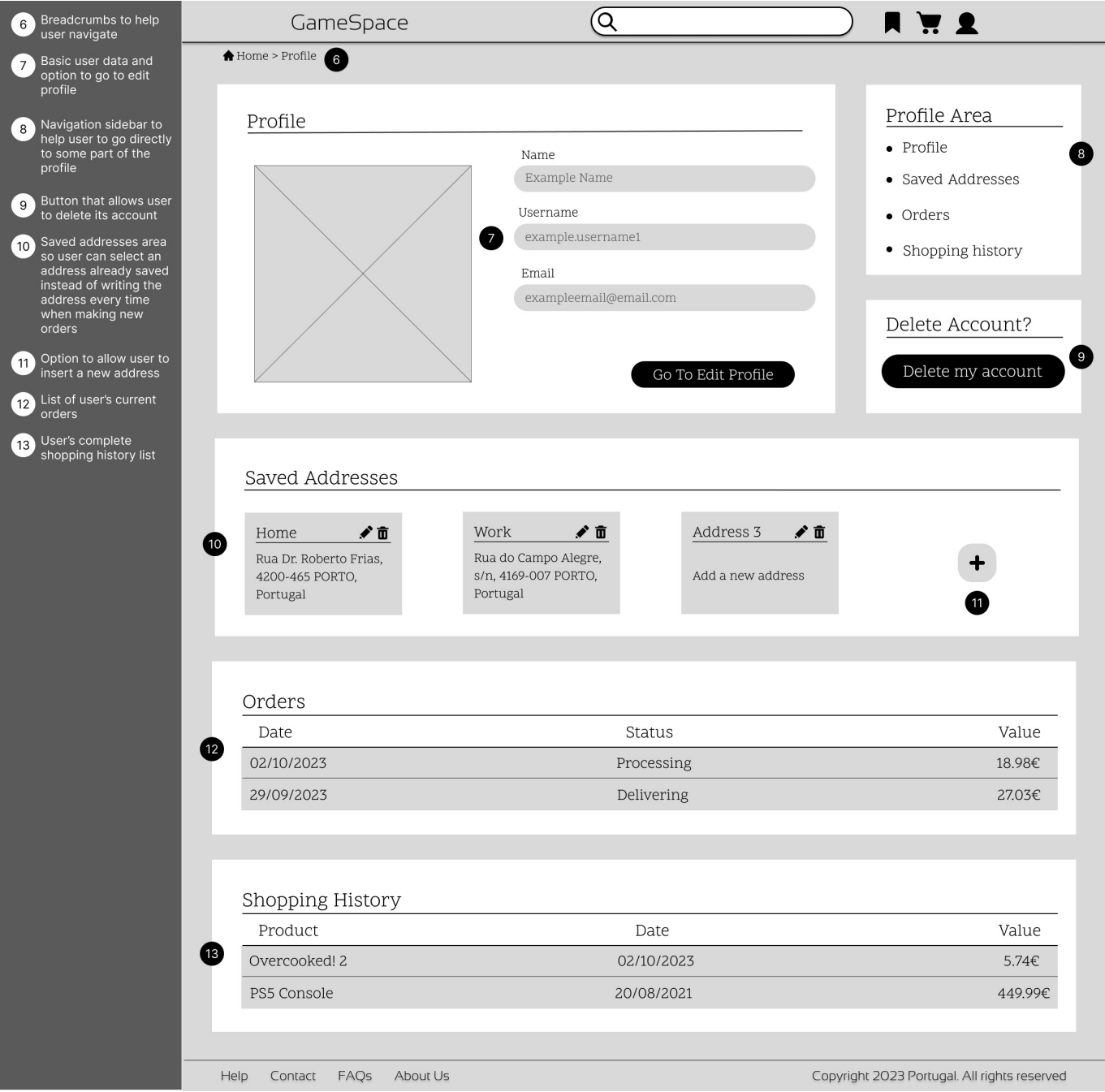


Figure 3: Main menu wireframe

UI02: User profile



UI03: Product profile

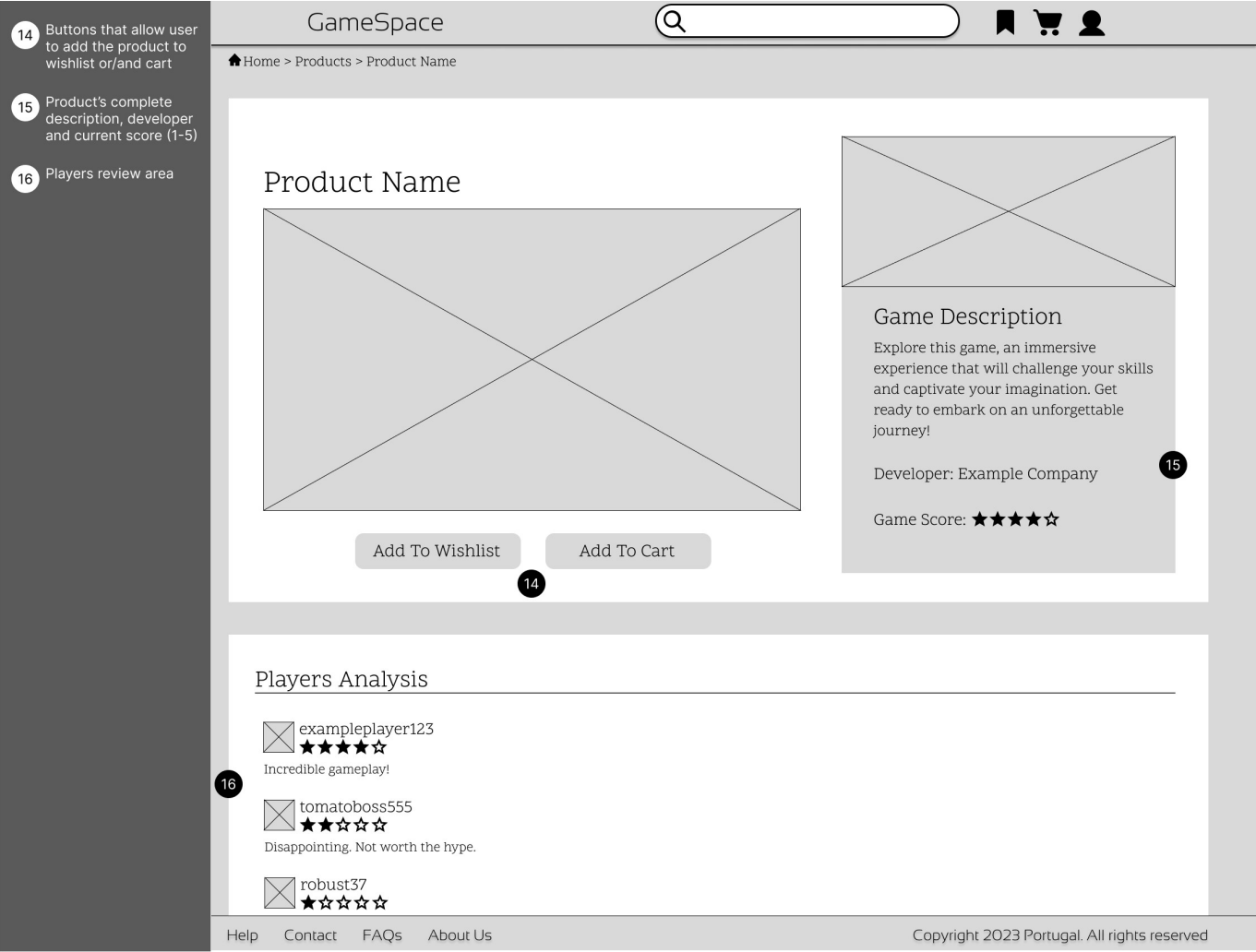


Figure 5: Product page wireframe

Revision History

GROUP23154, 03/10/2023

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