ER: Requirements Specification Component

Bidding the future and Selling the past.

A1: InfinityAuctions

InfinityAuctions is a world-class product for online auctions. It is currently in development by a small but mighty software company in the hopes of revolutionising the way online auctions are handled nowadays.

The main goal of the project is the development of a web-based information system for managing lots, handling absentee bids and bringing users together, from bidders to auction owners. This is a tool, or better yet, an experience, to be used by art collectors, phone sellers, vintage lovers and everyone in between. After the release, a team of administrators will be put in action, which will keep the users safe by managing auctions, cancelling inappropriate lots and, hopefully, will manage auction reports, as well as, changing the categories that the lot belongs to, to improve the user experience.

All our users will have their corner in our app. They will be able to authenticate into our system and from there we will give you all the tools you need to manage your account, as well as your bids and lots.

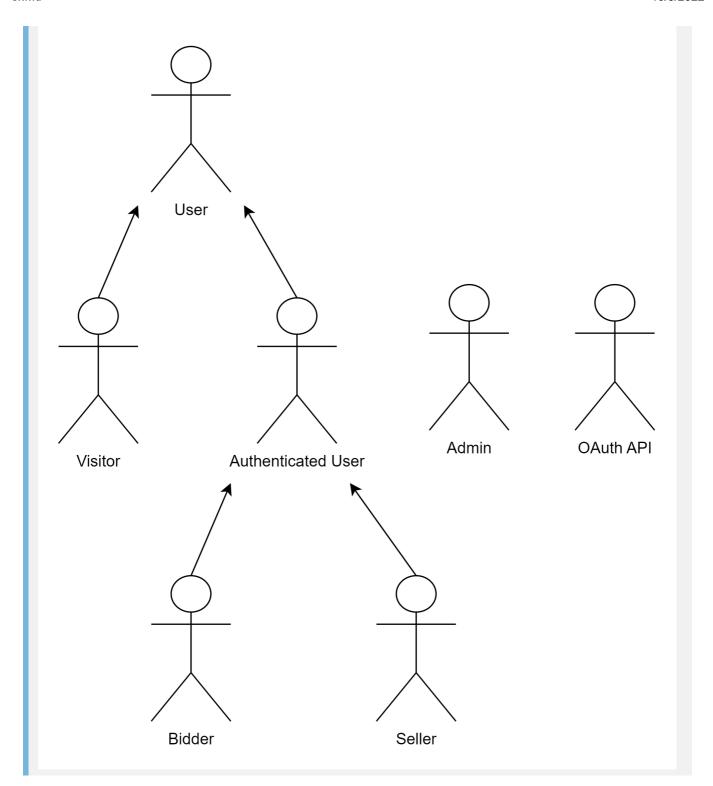
In our product, we have several types of users: the administrators that can manage and delete auctions; the auction owner that edits the auction details (provides a description of the item to be auctioned alongside some photos and defines the categories), manages the auction status and has the power to cancel the auction; the bidder can bid in the auctions, rate the seller and view the bidding history for each auction. Any authenticated user (bidders and sellers) can create new auctions, mark and view auctions followed, easily access auctions in which the user is bidding, add credit to the account and check its previous bidding history. Furthermore, non-authenticated users can access the information on active auctions and search them by using a search box and for more specificality there will be filters for finding any needle in our massive haystack of auctions.

The platform will have a mind-blowing user-friendly design, responsive to all platforms, from smartphones to desktops and all sizes in between. Our goal is in creating simple navigation to be used with the most complex and revolutionary online auction house. It is in our best interest to provide you with the best tools in the market, such as advanced search features. We thrive in making amazing user experiences and we guarantee that auctioning will never be a hassle.

A2: Actors and User stories

This artifact defines the actors and their user stories, serving as agile documentation of the project's requirements.

1. Actors



Identifier	Description
User	Generic user that has access to public information, such as active auctions and user profiles.
Visitor	Unauthenticated user that can register itself (sign-up) or sign-in in the system
Authenticated User	Authenticated user that can consult information, create auctions, follow auctions, bid in auctions and view activities such as bidding history and followed auctions.
Auction owner	Authenticated user that is able to edit an auction, manage auctions status and cancel auctions
OAuth API	External OAuth API that can be used to register or authenticate into the system.

2. User Stories

User stories organized by actor.

For each actor, a table containing a line for each user story, and for each user story: an identifier, a name, a priority, and a description (following the recommended pattern).

2.1. Visitor

Identifier	Name	Priority	riority Description	
US01	Sign-in	High	As a Visitor, I want to authenticate into the system, so that I can access privileged information.	
US02	Sign-up	High	As a Visitor, I want to register myself into the system, so that I can authenticate myself into the system.	
US03	OAuth API Sign-in	Low	As a Visitor, I want to sign-in through my Google account, so that I can authenticate myself into the system.	
US04	OAuth API Sign-up	Low	As a Visitor, I want to register a new account linked to my Google account, to easily register myself in the system.	

2.2. User

Identifier	Name	Priority	Description	
US11	See Home page	High	As a User, I want to access the Home page, so that I can see a brief presentation of the website	
US12	See About page	High	As a User, I want to access the About page, so that I can see a complete description of the website and its creators.	
US13	Consult Services	High	As a User, I want to access the services information, so that I can see the website's services.	
US14	Consult FAQ	High	As a User, I want to access the FAQ, so that I can get quick answers t common questions.	
US15	Consult Contacts	High	As a User, I want to access contacts, so that I can come in touch with the platform creators.	
US16	Search	High	As a User, I want to search the platform keywords, so that I can quickly find goods and services that I am looking for.	
US17	Filters	Medium	As a User, I want to search an auction within a certain criteria, so th I can quickly find goods and services that I am looking for.	
US18	Report auctions	Medium	As a User, I want to be able to report auctions I find inappropriate, so that I can notify administrators of a possible misuse of the platform.	

Identifier	Name	Priority	Description
US19	Report users	Medium	As a User, I want to be able to report other users I find inappropriate, so that I can notify administrators of a possible misuse of the platform.
US20	Featured items	Medium	As a User, I want to have a shortcut to items featured in the platform, so that I can find interesting auctions.
US21	Most active auctions	Medium	As a User, I want to have a shortcut to the most active auctions in the platform, so that I can see what is currently popular.
US22	New auctions	Medium	As a User, I want to have a shortcut to the most recent auctions in the platform, so that I can see the new business opportunities.
US23	Social networks	Low	As a User, I want to have a shortcut to the platform's social media accounts.
US24	More from this seller	Low	As a User, I want to access other auctions by the same seller whose auction I am on, so that I can check if the seller has any other item of interest to me.

2.3. Authenticated user

Identifier	Name	Priority	Description
US31	Create auctions	High	As an Authenticated user, I want to create auctions, so that I can auction a product to other users.
US32	Bid an auction	High	As an Authenticated user, I want to bid on auctions, so that I can set a new price for the product I am willing to buy.
US33	View activity	High	As an Authenticated user, I want to view my account history, so that I can consult previous auctions, as well as those that I am bidding on or following.
US34	Edit account	High	As an Authenticated user, I want to be able to edit my account, so that I can keep my personal data updated.
US35	Bidding history	High	As a Bidder, I want to have access to the bidding history of a certain auction, so that I can study my approach to it and maximize the chances of winning it with a smaller bid.
US36	View Users profile	High	As an Authenticated user, I want to be able to see other users' profiles, so that I can access their information.
US37	Add funds to account	Medium	As an Authenticated user, I want to be able to add funds to my account, so that I can bid in the auctions.
US38	Delete account	Medium	As an Authenticated user, I want to be able to delete my account, so that I can erase personal information from the platform.

Identifier	Name	Priority	riority Description	
US39	Follow auctions	Medium	As an Authenticated user, I want to follow auctions, so that I can keep up to date with an auction in progress.	
US40	US40 Wishlist Medium		As a Authenticated user, I want to be able to add certain keywords and search strings to my Wishlist, so that I can quickly recall past searches.	
US41	Notification	Medium	As a Authenticated user, I want to be notified every time a new product that matches my Wishlist is auctioned, so that I can quickly go bid on it.	
US42	Control profile privacy	Low	As an Authenticated user, I want to be able to change my privacy settings, so that I can control what information other users see.	
US43	Withdraw funds	Low	As an Authenticated user, I want to be able to withdraw funds from my account, so that I can use the money earned by selling items.	

2.4. Bidder

Identifier	Name	Priority	Description
US51	Update bid	High	As a Bidder, I want to update the bid, so that I can set a new competitive price for the product.
US52	Notified on new bid on participating auction	Medium	As a Bidder, I want to be notified, so that I know the state of an auction where I'm bidding.
US53	Notified on participating auction ended	Medium	As a Bidder, I want to be notified, so that I know when an auction in which I was bidding is over.
US54	Notified on participating auction winner	Medium	As a Bidder, I want to be notified, so that I know when I won an auction.
US55	Notified on followed auction canceled	Medium	As a Bidder, I want to be notified, so that I know when an auction in which I was bidding is canceled.
US56	Notified on participating auction ending	Medium	As a Bidder, I want to be notified, so that I know when the auction is close to the end.
US57	Rate a seller	Medium	As a Bidder, I want to rate a seller, so that I can give feedback about my experience.

Identifier	Name	Priority	Description
US58	Buy now	Medium	As a Bidder, I want to be able to buy the item immediately for the predefined asked price, so that I can guarantee I win the auction.
US59	Max bid	Low	As a Bidder, I want to be able to set a max bid value, so that my biddings are made automatically.

2.5. Auction Owner

Identifier	Name	Priority	Description
US61	Edit auctions	High	As an Auction Owner, I want to edit auctions, so that I can edit the product I'm currently bidding.
US62	Manage auction status	High	As an Auction Owner, I want to be able to manage my auction status so that I can change it when I see fit.
US63	Cancel auction	High	As an Auction Owner, I want to be able to cancel my auctions so that my product no longer appears in the auction listing.
US64	Notified on new bid on owned auction	Medium	As an Auction Owner, I want to be notified, so that I know the state of an auction I own.
US65	Notified on owned auction ended	Medium	As an Auction Owner, I want to be notified, so that I know when an auction I own is over.
US66	Notified on owned auction winner	Medium	As an Auction Owner, I want to be notified, so that I know when someone won one of my auctions.
US67	Notified on owned auction canceled	Medium	As an Auction Owner, I want to be notified, so that I know when an auction in which I own is canceled.
US68	Notified on owned auction ending	Medium	As an Auction Owner, I want to be notified, so that I know when the auction is close to the end.

Identifier	Name	Priority	Description
US69	Buy it now	Medium	As a Auction Owner, I want to be able to list my auction product for a very high desired price, so that the item can be bought immediately for the desired sum and ends the auction countdown.

2.6. Administrator

Identifier	Name	Priority	Description	
US71	Manage auctions	High	As an Administrator, I want to manage auctions, so that I can alter multiple aspects of the auctions in the current auction list.	
US72	Cancel auctions	High	As an Administrator, I want to be able to cancel auctions, so that I can eliminate auctions that are infringing our policies.	
US73	Punish users	Medium	As an Administrator, I want to be able to temporarily block/unblock user accounts if they don't follow our policies, so that our policies are respected.	
US74	Delete user accounts	Medium	As an Administrator, I want to, in extreme cases, be able to delete a user account, so that our policies are respected.	
US75	Manage auction reports	Low	As an Administrator, I want to be able to manage auction reports, so that I can change multiple details in any auction report.	
US76	Manage categories	Low	As an Administrator, I want to be able to manage categories, so that I can create more categories and recategorize auctions.	

3. Supplementary Requirements

Section including business rules, technical requirements, and restrictions.

For each subsection, a table containing identifiers, names, and descriptions for each requirement.

3.1. Business rules

Identifier	Name	Description	
BR01	Conflicts of interest	Administrator accounts are independent of the user accounts, i.e. they cannot create or participate in auctions.	
BR02	Cancellation	An auction can only be canceled if there are no bids.	
BR03	Self biding	A user cannot bid on its own auction.	
BR04	Delete user	When an account gets deleted, user activity is saved, but all personal data is erased.	

Identifier	Name	Description
BR05	ltem Filtering	Items considered illegal to be sold (in the respective countries) can't be auctioned.
BR06	Time Integrity	The ending date of a given auction, as well as its biddings, is greater or equal then the starting date.

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	Usability	The system should be simple and easy to use. InfinityAuctions is designed to be used by users that are, at least, 18 years old, with or without technical experience, so a very good usability is a critical requirement.
TR03	Performance	The system should have short response times to make sure that auction prices are always up to date. A response time of over 1 second is unnaceptable because it can lead to poor user experience.
TR04	Web Application	The system should be implemented as a web application with dynamic pages (HTML5, JavaScript, CSS3 and PHP).
TR05	Portability	The server-side system should work across multiple platforms (Linux, Mac OS, etc.).
TR06	Security	The system shall protect information from unauthorized access through the use of an authentication and verification system. Since the system deals with banking details and money of our clients, this is of utmost importance.
TR07	Scalability	The system must be prepared to deal with the growth in the number of users and their actions.
TR08	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).
TR09	Future Proof	A website designed following design patterns and with emphasis in modularity. Prepared to change payment operators and using new API's with ease.
TR10	Database	The PostgreSQL database management system must be used, with a version of 11 or higher.
TR11	Browser Portability	The website must work flawlessly and with all its features in Firefox(91.0), Chrome(107.0) and Safari(15.6.1).

3.3. Restrictions

Identifier	Name	Description
C01	Deadline	The system should be ready to be used before Christmas time.

A3: Information Architecture

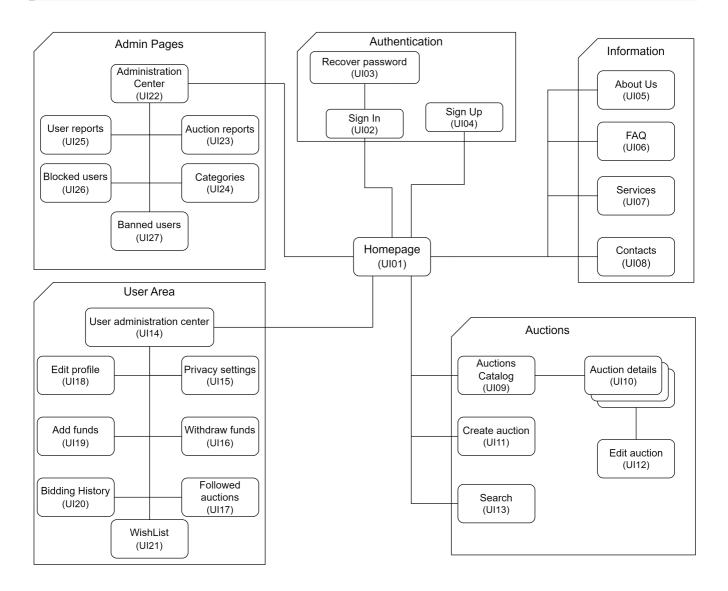
Brief presentation of the artefact goals.

1. Sitemap

Sitemap presenting the overall structure of the web application.

Each page must be identified in the sitemap.

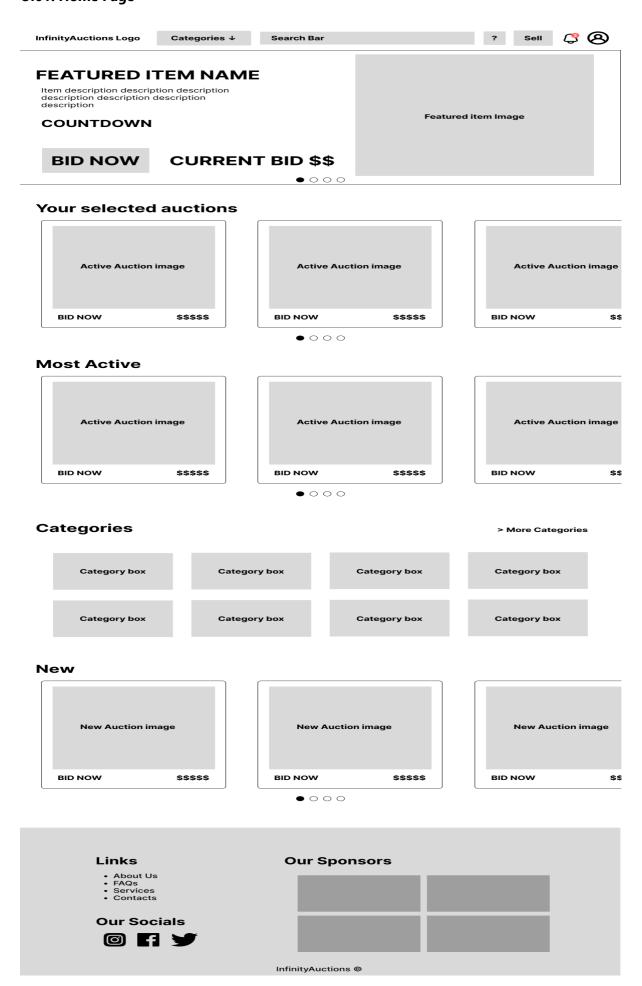
Multiple instances of the same page (e.g. student profile in SIGARRA) are presented as page stacks.



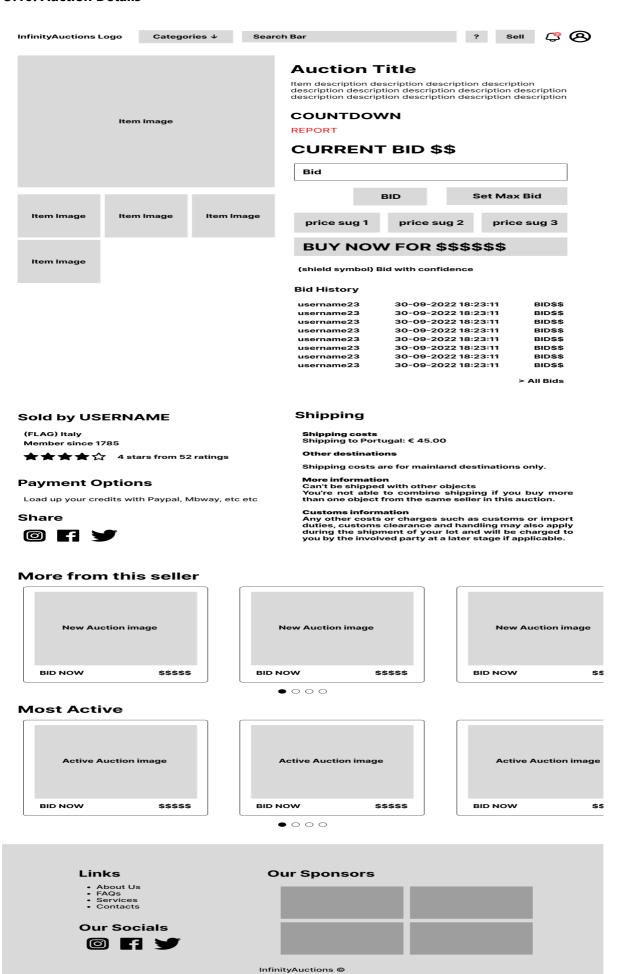
2. Wireframes

Wireframes for, at least, two main pages of the web application. Do not include trivial use cases.

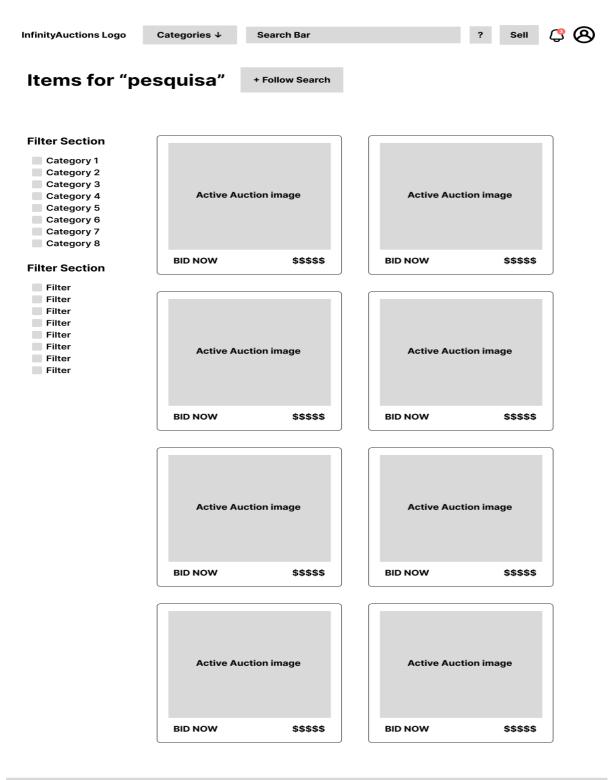
UI01: Home Page



UI10: Auction Details



UI13: Search Results





Revision history

Changes made to the first submission:

1. Item 1

2. ...

GROUP2271, 05/10/2022

- André Sousa, up202005277@fe.up.pt (Editor)
- Pedro Moreira, up201905429@fe.up.pt
- Pedro Fonseca, up202008307@fe.up.pt
- Vítor Cavaleiro, up202004724@edu.fe.up.pt