



Project Proposal

COMP3900 - Let's Chat

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Problem Statement

“To develop a platform that allow users to sell and purchase pets and pets products online”

The platform must allow users to list pets and pet related products for sale, and allow other users to browse and purchase these products. The website must allow users to present detailed information on the pets they have listed for sale which includes the age, breed, possible illness, place of birth, etc. Users must be able to get help from a chatbot for various purposes including customer service, request routing, or information gathering.

Our product “Petiverse” aims to provide a safe and easy-to-use online marketplace for pets and pet products.

Background

The following is a comparison of the features of some major ecommerce sites. By locating their weaknesses we can discover what features can be implemented in a new platform to make it preferable for customers to use.



E-commerce Platform Comparison

Analysis	Amazon	Taobao	Gumtree
Types of goods	<ul style="list-style-type: none"> Huge variety of digital and physical consumer goods Pet food and other animal products Allows limited sale of small live animals such as snails, fish and insects Strict safety guidelines for shipping of animals 	<ul style="list-style-type: none"> Large variety of general consumer goods Many different kinds of pet products (E.g. specific shaver for certain pets, automatic pet feeder, large pets backpack, etc.) Allow to sell a large category of animals --- dogs, cats, fish, turtles, snakes, birds, foxes, etc. (Con: No strict rules for shipping animals, sellers can choose to deliver the pets by their own vehicle, flight delivery, ocean freight, train delivery, etc.) (Con: No strict rules for animals' health, most of the cheap pets on the platform have hidden illness or certain issues) 	<ul style="list-style-type: none"> Huge variety of both consumer goods and commercial products. Mostly contains second hand item sales. Allows sales of pets and pet products as long as it adheres to the guidelines set by gumtree. Pet and pet products exist as its own category
Home / dashboard page	<ul style="list-style-type: none"> User dashboard page with links to recently viewed products and previous orders Curated display of common product categories Automated display of categories deemed relevant to user 	<ul style="list-style-type: none"> Home page shows different kind of popular products Most sold products recently, products that have the most discount or most worthy, most searched products, etc. Home page products will change to the corresponding type of items based on users' search history and the items that they have purchased 	<ul style="list-style-type: none"> Dashboard is inundated with random listings of items in the area that might not interest the user at all. Dashboard is separated into tabs such as "recently viewed", "watchlist" & "Homepage Gallery". Includes a search bar that filters according to location categories.

Types of sellers	<ul style="list-style-type: none">Separate accounts / interfaces for buyers and sellersCarries major brands and businessesMonthly subscription fee for sellers - possible for small businesses but not for hobbyist / casual selling	<ul style="list-style-type: none">Users selling general products need an individual business licenseUsers selling animals need a pets business license	<ul style="list-style-type: none">Gumtree does not have a specific account for business other than for car dealers and businesses looking for job hires. As such there is no clear distinction between private sellers and businesses.Listings for vehicles and other goods are often free. However, listings for pets require a fee depending on what kind of pet is being sold. This is to prevent private unlicensed breeders from exploiting the platform.
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Recommender / user profiling system	<ul style="list-style-type: none"> ● Products placed into categories defined by Amazon ● User is recommended categories they have interacted with through purchases and page views, as well as specific popular products in those categories ● Users are upsold on additional products when on a product page through 'customers who bought this product also purchased' system, which automatically generates a clustering of related products ● Search makes use of product name, category, star rating, and language 	<ul style="list-style-type: none"> ● Products can be searched by the text of product names and description ● Users are recommended products based on their previously purchased and viewed products 	<ul style="list-style-type: none"> ● Search algorithms automatically direct users to a specific category based on the search terms inputted if the user did not specify a category beforehand. ● Sellers can buy upgrades that will bump up their ad on the homepage and search results. ● This often results in the search result being cluttered by "Top Ads" from other categories that are not relevant to the search term.
Review system	<ul style="list-style-type: none"> ● 5 star customer rating system, which is used for search ranking and filtering ● Text based user reviews on product page, which can be searched by automatically generated 'key terms' ● Reviews can be marked as 'helpful' by other users, which is used for ordering of reviews on product page ● Customer questions and answers system on product pages, which 	<ul style="list-style-type: none"> ● Comment reviews can be left on product pages which allow text, pictures and video ● (However, a significant amount of fake / generated comments are created by users to attract customers ● There is a FAQ section in the review page for customers to ask question from the buyers that have already purchased the product (An "already purchased" tag will 	<ul style="list-style-type: none"> ● No item based review system. ● Review of users instead. A buyer can review a seller and vice versa. A user can review another user positively or negatively by giving them features. E.g. "Polite" and "Friendly" or "Haggled too much" and "Time waster".

	are ordered using upvote system, and can be searched by text	be next to the corresponding users)	
Moderation system	<ul style="list-style-type: none"> Report system for reviews - mass reports result in manual moderation - removed if not relevant or offensive Report system for products - reports may result in manual moderation where listing is removed or seller banned for TOS violation User must fill in form with details in 'contact us' section of site - not clearly accessible from product listing or seller profile 	<ul style="list-style-type: none"> Users are able to cancel purchases within a limited time with reasons Users are able to give feedback and comments moderators via a chatbot or online help service Most of the sellers have a online help chat which allows buyers to ask them specific question about the products (A bot takes the online help's place after hours) 	<ul style="list-style-type: none"> Uses a community moderation system where users can report a listing if they believe that it violates Gumtree's community guidelines. An admin or moderator can then either issue a warning regarding the violation and suspend the listing or remove the listing completely.
Help system	<ul style="list-style-type: none"> Access to help system is not very visible - hidden at the very bottom of store pages Help consists of a set of wiki style text pages - wide variety of help topics but it may still be difficult for non internet literate users to access basic functionality such as searching and purchasing Help system is not meaningfully interactive or adaptive to different users 	<ul style="list-style-type: none"> Several types of help system Text articles for common issues AI Chat bot that can answer simple questions and lead users to relevant articles 24 hours online chat with customer service 12 hours online call with customer service, some countries have their corresponding help desk 	<ul style="list-style-type: none"> Access to help centre on the top right of the dashboard is available. It lists all the FAQs and any issues that are not listed can be sent directly. This feature is not as visible on the mobile version as the tips and help section is inside the settings tab.

Problem Summary

Based on the user experiences presented by these websites, here are some major issues that need to be addressed:

1. Strict safety guidelines of shipping animals
2. Proof of pet health before sale
3. Product cancellation with reasonable excuse
4. Fake product rating and comments by bots
5. Easy access to help systems

Overall Features	Amazon	Taobao	Gumtree
Product Related			
Product Overview	✓	✓	✓
Search Filter	✓	✓	✓
Recommendation	✓	✓	✗(Very cluttered dashboard)
Delivery Tracking	✓	✓	✗(No delivery tracking. To be arranged privately between buyer and seller)
Live chat	✗	✓	✗(Only FAQs in help centre and email contact for any questions not covered)
Order cancellation / reversal	✗ (only before dispatch)	✓ (with valid reasons)	✗(Arranged privately between buyer and seller)
Pets Related			



Health guarantees for animals	✓	✗	✗(Only a guideline which aims to inform buyers rather than enforces compliance in sellers)
Strict shipping rules	✓	✗	✗(No guidelines to enforce shipping of live animals)
Seller Related			
Seller Profile	✓	✓	✓
Overall Reviews of Seller	✗	✓	✓
Contact between sellers and buyers	✗ (only through contact details)	✓	✓(Has its own in-app messaging system)
General Features			
Ease of use (out of 5)	3	3.5 as a pet shopping platform 4 as a comprehensive shopping platform	4 as a seller and 3 as a buyer



Product Features / Objectives

1. Users are able to list products for sale with information such as a name, text description, images, tags and shipping information.
2. Users can search for, and view the page of products that have been listed for sale. Searching can be done by text (name and description), or tags, and can be ordered by rating, popularity and date.
3. Users can add products to a cart, which can have its contents edited and then be checked out to complete a purchase
4. Site users have a dashboard page, which displays recently viewed products, manually curated categories, and automatically recommended products to the user in a visually appealing layout.
5. The dashboard utilizes a recommender system, which uses the product tags on previously purchased and viewed products to automatically show relevant listings to the user.
6. A registration and login system allows users to retain their listings, payment details, purchase history, and personalized product recommendations. Unregistered users are able to search and view listings, but aren't able to buy or list products.
7. Users who have purchased a product are able to leave reviews composed of a star rating and a text review on the product's page. These reviews can be viewed and filtered by other users viewing the product page. Users selling a product are able to reply to reviews on their product.
8. Admin users are able to remove product listings and reviews, as well as set some default categories displayed on user dashboards.
9. Sellers are able to list a product as an auction rather than regular listing. When starting an auction, the seller can specify the starting bid, minimum increment, and autobuy price.
10. A chatbot can be utilized by users to easily make purchases, listings, search, ask for product recommendations, and ask for general help.



Novel Feature

1. Product sale can be set to an auction so only the highest bidder can obtain the product
2. Recommendation products can be listed out based on the user's purchase and search history
3. Chatbot will provide a complete instruction for new seller and answers the existing buyers' question about their purchases

User Stories

User Types

1. Buyer --- A logged-in user who is wanting to purchase for pets or pet products
2. Seller --- A logged-in user who is wanting to sell pets or pet products
3. Admin --- A user who is responsible for operating systems, business applications, security tools, service help, etc

Note that a registered user is able to sell or purchase products, instead of dividing sellers and buyers into different types of accounts. Admins are special users that have access to additional functionality such as deleting product listings and reviews through the website interface.

User Stories (with tasks for stories in first sprint)

Registration

As a user, I would like to be able to register an account so that I have access to the site.

Acceptance Criteria

- Unregistered users can click a register button on the website interface which links to a signup form
- Users are prompted on the signup form to enter details:
 - A valid (unregistered) email address
 - A username (of given length)
 - A password (Which must fulfill length and character criteria)
 - A matching password confirmation
- Successful completion of the signup form results in the user's details being stored by the system's database

- | |
|--|
| <input checked="" type="checkbox"/> As a buyer, I would like to register for the platform by entering Registration CWLC-72 ↑ ↘ |
| <input checked="" type="checkbox"/> As a seller, I would like to be able to register an account so I Registration CWLC-23 ↑ ↘ |
| <input checked="" type="checkbox"/> As an Admin, I want to be able to register myself online by entering Registration CWLC-7 ↑ ↘ |

- | |
|---|
| <input checked="" type="checkbox"/> CWLC-132
Redirect to Confirmation Email Sent Page if registration was successful |
| <input checked="" type="checkbox"/> CWLC-126
Create an icon which will list out the requirement for the corresponding field when the mouse has hovered over it |
| <input checked="" type="checkbox"/> CWLC-124
Pops up warning error messages if sign up information do not meet the requirements |
| <input checked="" type="checkbox"/> CWLC-122
Create a Sign Up button |
| <input checked="" type="checkbox"/> CWLC-109
Create a confirmation password text box so user can make sure they have registered with the correct password |
| <input checked="" type="checkbox"/> CWLC-108
Create a password text box as registration information |
| <input checked="" type="checkbox"/> CWLC-106
Create an email text box as registration information |

As a user, I would like to receive a confirmation email once I have registered for the platform so that I know I have registered successfully.

Acceptance Criteria

- When a user completes registration, an email is automatically sent to the account they registered with, containing a link
- If that link is accessed within a given timeframe, the user's account becomes active
- The account cannot be used to log in until the link has been accessed

- | |
|---|
| <input checked="" type="checkbox"/> As a seller, I would like to receive a confirmation email once I Registration CWLC-26 ↑ ↘ |
| <input checked="" type="checkbox"/> As a buyer, I would like to receive a confirmation email once I Registration CWLC-35 ↑ ↘ |
| <input checked="" type="checkbox"/> As an Admin, I would like to receive a confirmation email once I Registration CWLC-9 ↑ ↘ |

- | |
|---|
| <input checked="" type="checkbox"/> CWLC-121
Redirect to Confirmation Email sent page once they have registered successfully |
| <input checked="" type="checkbox"/> CWLC-120
Create a Confirmation Email Sent page |

As a user, I would like to add a nickname to my account so that other users can identify me online.

Acceptance Criteria

- In the account settings menu, registered users have the ability to change their account 'nickname' to a given text string of limited length
- Users who have set a nickname have the nickname displayed in place of their username on their product listings and reviews

<input checked="" type="checkbox"/>	As a buyer, I would like to be able to assign a nickname to my account	Registration	CWLC-77		
<input checked="" type="checkbox"/>	As a seller, I would like to be able to assign a nickname to my account	Registration	CWLC-78		

CWLC-130

Create a nickname text box

CWLC-128

Pops up warning error messages if nickname has been used

Login

As a user, I would like to be able to log in to my account so that I can update my personal, contact and payment details.

Acceptance Criteria

- Guest users are able to access a login form either from a top bar on site pages, or by attempting to add a product to their cart
- On the login form, users are prompted to enter an account's email address and password
- Successfully entering an account email and matching password results in the user being logged in, and redirecting to the site page they were viewing previously
- Being logged in allows users to access their account settings page through an interface icon

<input checked="" type="checkbox"/>	As a buyer, I want to login to my personal account so that I can purchase products	Login	CWLC-3		
<input checked="" type="checkbox"/>	As a seller I would like to be able to log in to my seller account so that I can manage my products	Login	CWLC-38		
<input checked="" type="checkbox"/>	As an Admin, I want to be able to login to the platform so that I have access to all accounts	Login	CWLC-10		

CWLC-100

Create a Log in button for user to login

CWLC-99

Create a password text box as login information

CWLC-98

Create an email text box as login information

CWLC-92

Redirect to the Login page with warning error messages if login details are incorrect

CWLC-91

Redirect to the Home page if login details are correct

As a user, I would like to be able to reset my password when I have forgotten my password so that I can access my account.

Acceptance Criteria

- On the login form, users are able to click a ‘forgot my password’ button, which automatically sends an email to the address entered (as long as there is an account registered with that email)
- The email sent contains a link to a form on the website which prompts the user to enter a new password and confirmation
- Completing this form updates the accounts password, so that they can now log in with the new password, and their old one becomes invalid

- | | | | | | |
|-------------------------------------|--|-----------------------|---------|--|--|
| <input checked="" type="checkbox"/> | As a seller, I would like to reset my password so that I can still login | Login | CWLC-76 | | |
| <input checked="" type="checkbox"/> | As an admin, I would like to reset my password so that I can still log | Login | CWLC-11 | | |
| <input checked="" type="checkbox"/> | As a buyer, I would like to reset my password so that I can still login | Login | CWLC-4 | | |

CWLC-88

Redirect to Forgot Password page after clicking the Forgot Password button

CWLC-85

Create a Forgot Password page so user can reset password with their email or phone number

CWLC-83

Create a Forgot Password button

Product Management

As a seller, I want to be able to list new products for sale, so that other users can view and purchase them.

Acceptance Criteria

- There is a button on the interface for logged in users which takes them to the ‘new listing’ page
- Once a user has satisfactorily completed the form (Contents of the form are provided in the following user stories), they can press a button to confirm the product listing
- A successfully listed product has a product page, which displays the name, details, and images of the product, and can be accessed through a unique url within the website

CWLC-50 / CWLC-42

1 ...

As a seller, I want to be able to list new products for sale, so that other users can view and purchase them

CWLC-225 Check that the seller is able to list a new product

TO DO

CWLC-226 Check that said product appears on the search results

TO DO

As a seller, I want to be able to set details of a product, such as name, images, and description so that potential buyers can see and understand my product.

Acceptance Criteria

- The new listing page prompts the user to enter the following details about the product:
 - Name (Text, of limited length)
 - Description (Text, of limited length, optional)
 - Images (Optional) - Users are able to upload 0-4 image files from their local device through the web interface. The images files are rejected if they are over a given size
 - Delivery info - (Text, of limited length)

CWLC-50 / CWLC-43

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As a seller, I want to be able to set details of a product, such as name, images, and description, so that it is easier for potential buyers to find decide on the product

CWLC-232

Create a number box that allows the seller to input the price

CWLC-231

Create a textbox that allows the seller to set the warranty of the product

CWLC-230

Create a text box that allows the seller to set the functionalities of the product

CWLC-229

Create a text box that allows the seller to set the details of the product

CWLC-228

Create a text box that allows the seller to input in the product name

CWLC-227

Create a UI that allows the seller to upload images of the product

As a seller, I want to be able to browse and set tags for a product I have listed so that it is easier for potential buyers to find my product.

Acceptance Criteria

- When creating a new product listing, users have the option to add multiple 'tags' to the product, where tags are composed of a unique text string
 - Users are shown a list of the most commonly

CWLC-50 / CWLC-44

1 .

As a seller, I want to be able to browse and set tags for a product i've listed, so that it is easier for potential buyers to find it

<p>used tags on other products and can add / remove these tags from their product by clicking them</p> <ul style="list-style-type: none"> ○ Users are able to add new tags to the product through a text box 	<p> CWLC-235 Set a limit for the number of tags allowed per product</p> <p> CWLC-234 Create textbox that allows the seller to set custom tags for the product</p> <p> CWLC-233 Create generic tags that the seller can put into his product</p>
<p>As a seller, I want to be able to set any of my listings as auctions so that I can get the highest price possible for my product or pet.</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● When creating the product listing, sellers can set the listing to either “auction” or “set price”. ● If the seller clicks on the auction option, the seller will see a text field indicating the “reserve price”. This is the lowest price that the seller will take before the item is considered “sold”. ● If the auction ends on a bid that is below the reserve price, the auction is considered a fail and a prompt will come out that gives the seller the option to either relist the item or remove the listing completely. ● If the auction ends on a bid that is above or equal to the reserve price, the auction is considered a success and a prompt will come out that shows the seller the success of the auction and the amount of the successful bid. It also shows the status of payment from the successful buyer and whether any payment has been made or not. 	<p>CWLC-50 /  CWLC-237  1  ...</p> <p>As a seller, I want to be able to set any of my listings as auctions so that I can get the highest price possible for my product or pet.</p> <p> CWLC-258 If the auction ends on a bid above the reserve price, the seller is prompted to wait for the payment from the buyer and any ste...</p> <p> CWLC-257 If the auction ends with no bids above the reserve price, then a notification appears to prompt the seller to reauction the produ...</p> <p> CWLC-256 Create a text box that allows the seller to set the reserve price</p> <p> CWLC-255 Create a text box that allows the seller to set the starting bid price</p> <p> CWLC-254 Create dropdown that lets the seller pick on whether to set the listing as fixed price or auction</p>

<p>As a seller, I want to be able to view the bid history on any of the listings I set to auction so that I know who was interested in purchasing my product.</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> • A link to the bidding history page should be available under the price • The table should show the username of the bidders, the time the bid was submitted and the amount of bid. 	<p>CWLC-50 / CWLC-238 ① ⌂ ...</p> <p>As a seller, I want to be able to view the bid history on any of the listings I set to auction so that I know who was interested in purchasing my product.</p> <p>CWLC-260 Table should show the name of bidders, the amount bid and the time the bid was submitted</p> <p>CWLC-259 Create UI table to show the list of bidders that bid for the product</p>
<p>As a seller, I want to be able to set any of my listings as a fixed price listing so that buyers can just buy my product outright rather than going through the auction process</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> • When creating the product listing, sellers can set the listing to either "auction" or "set price". • If the seller clicks on the 'set price' option, the seller will see a text field indicating the price they want it to sell at. • If a buyer adds the item to the cart, the seller is notified that the item is sold. • If there are still more of the item then the listing stays. Otherwise, the listing is made unavailable for all buyers until it is updated by the seller. 	<p>CWLC-50 / CWLC-261 ① ⌂ ...</p> <p>As a seller, I want to be able to set my listings as a fixed price listing so that buyers can just buy my product outright without going through the auction process</p> <p>CWLC-266 If the product is sold and there are more quantities of it available, the quantity should be reflected in the product listing and no...</p> <p>CWLC-265 If the product is sold and there are no more quantity of the product available, the listing should be unavailable to other buyers</p> <p>CWLC-264 If a buyer checks out a cart with the product in it, the seller is notified that the product is sold</p> <p>CWLC-263 Create a number field that allows the seller to set the price of the product</p> <p>CWLC-262 Create a dropdown that lets the seller pick the fixed price listing option</p>

<p>As a seller, I want to be able to view the name and details of any buyers who have purchased my products so that I can ship the products they purchased and contact them</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> • Users are able to access a page through the interface which shows the names of all of their listed products. • The product names link the user to a page which lists the username and purchase date of all the purchasers of the product. • The usernames link the user to the public profile of the purchaser - showing their contact details and shipping info 	<p>CWLC-50 / CWLC-45</p> <p>⌚ 1 ⚡ ...</p> <p>As a seller, I want to be able to view the name and details of the purchasers of my products, so I can ship to them and contact them</p> <p>CWLC-236 Check that the username and address of the recipient is stated on the seller's sales history</p>
<p>As a seller, I want to be able to edit the details of the product, so that I can change the information, such as price, based on the current market price.</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> • Edits made by the seller for a product listing is reflected in all instances of the listings when changes are made • A confirmation prompt should appear before a change is done. • Product listings of products that have already been purchased by a buyer should not change and should retain old information from the time it was bought. 	<p>CWLC-50 / CWLC-240</p> <p>⌚ 1 ⚡ ...</p> <p>As a seller, I want to be able to edit the details of the product, so that I can change the information, such as price, based on the current market price.</p> <p>CWLC-246 Once the seller has edited the detail of the product, the changes have to be reflected instantly.</p> <p>CWLC-244 A confirmation prompt should appear before a change is done.</p>

As a seller, I want to be able to remove products, so that I will have time to stock more items when I am running out of stock.

Acceptance Criteria

- Product listings removed by a seller should not be seen in the available searches.
- A confirmation prompt should appear before removal.
- If a buyer purchased a product and the product listing is removed, the buyer should still have access to information on the old product listing to refer back to.

[CWLC-50](#) / [CWLC-242](#)

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As a seller, I want to be able to remove products, so that I will have time to stock more items when I am running out of stock.

[CWLC-245](#)

A confirmation prompt should appear before removal.

[CWLC-243](#)

The product should be removed from the available search immediately when the seller has removed it.

Purchase

As a buyer, I want to be able to add products from the store into my shopping cart so that I can checkout all the pets and products I want in one click

Acceptance Criteria

- Product pages have an add to cart button
 - If a logged in user clicks the button, the product is added to their cart - The products in the cart can be viewed through the shopping cart interface
 - If the user is not logged in when they click the button, they are redirected to the login form
- The add to cart button does not do anything if a user attempts to add their own product to their cart

[CWLC-20](#) / [CWLC-49](#)

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As a buyer, I want to be able to add products from the store into my shopping cart, so that I can receive the pets and pet products that I want

	<p> CWLC-138 Update user cart display when button is clicked</p> <p> CWLC-137 Create script to add product object to users current cart</p> <p> CWLC-136 Create 'add to cart' button on product pages</p>
<p>As a buyer, I want to able to remove products from my shopping cart so that I wouldn't accidentally purchase them</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● The shopping cart interface has an 'remove' button next to the name of each item in the cart ● Clicking the remove button visually removes the item from the cart - if the user then completes checkout, the item will not be present 	<p>CWLC-20 /  CWLC-51  1  ...</p> <p>As a buyer, I want to be able to remove products from my shopping cart so that I wouldn't accidentally purchase them.</p> <p> CWLC-117 Update user cart and remove item in cart UI when remove button is pressed</p> <p> CWLC-116 Add 'remove item' button to item cart layout</p>
<p>As a buyer, I want to be able to view the details of a product so that I can make an informed purchase</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Each listed product has a product page which can be accessed through a unique url within the site ● The product page clearly displays the following details of the product: <ul style="list-style-type: none"> ○ Product name ○ Seller name ○ Star rating ○ Text description 	<p>CWLC-20 /  CWLC-52  1  ...</p> <p>As a buyer, I want to be able to view the details of products, so that I can make an informed purchase</p>

<ul style="list-style-type: none"> ○ Images (if present) ○ Tag list 	<p> CWLC-110 Connect product page data elements to server requests</p> <p> CWLC-107 Create dynamic url system for accessing product pages</p> <p> CWLC-105 Create product page layout in HTML / Vue</p> <p> CWLC-104 Add product details tables to database schema</p>
<p>As a buyer, I want to be able to view a history of my purchases so that I have a record of items I have bought</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Logged in users can access a page showing their purchase history through a button on the main site interface ● The purchase history page lists the purchases made by the user (most recent first) with the following information: <ul style="list-style-type: none"> ○ Product name ○ Seller name ○ Date purchased 	<p>CWLC-20 /  CWLC-53  </p> <p>As a buyer, I want to be able to view a history of my purchases, so I have a record of items I have bought</p> <p> CWLC-115 Connect server requests for retrieving user purchase history</p> <p> CWLC-114 Create purchase history page layout</p>

As a buyer, I want to be able to cancel my purchase before the transaction succeeds so that I won't be charged for an unwanted item.

Acceptance Criteria

- Users have a 'cancel purchase' button next to each product on their purchase history page
 - If the seller of the item has marked the purchase as 'shipped', the button is greyed out - it is too late for the purchase to be reversed
 - If the item has not yet been marked as shipped, clicking the button reverses the purchase
- The item is removed from both the purchases history of the buyer and the seller

CWLC-20 / CWLC-54

1 ⌂ ...

As a buyer, I want to be able to cancel my purchase before the transaction success so that I wouldn't be charged for an unwanted item.

CWLC-142

Update list of user purchases on page if request succeeds

CWLC-141

Send request to remove purchase from user purchase history when button is clicked

CWLC-140

Grey out button when the purchase has already been marked as completed

CWLC-139

Create 'cancel purchase' button on user purchase history page

As a buyer, I want to be able to bid in auctions, so that I have a chance to receive high value products

Acceptance Criteria

- If a listing is an auction listing, there should be a number field that allows the buyer to input the price that they are willing to pay for the item.
- If the number set is lower than the current bid, the buyer's attempt to bid will fail and an error says "Bid too low."
- If the number set is higher than the current bid, the number set becomes the highest current bid and if the auction ends on this bid, the buyer wins the auction and has the right to purchase the product or pet.

CWLC-20 / CWLC-239

1 ⌂

As a buyer, I want to be able to bid in auctions, so that I have a chance to receive high value products

CWLC-253

Create UI for successful bidder to pay for the product

CWLC-252

Create UI for failed bidders that recommends other product of similar nature to them

CWLC-251

Other buyers that bid but failed to win the auction should not be able to pay for the product

CWLC-250

Check that only the highest bidder have the right to purchasing the product

CWLC-249

Check that the buyer's bid goes through in the case that the bid from the buyer is higher than the current highest bid

CWLC-248

Prevent the bid from going through if the number inputted by the buyer is less than the current highest bid

CWLC-247

Create a number field that will allow the user to input their highest bid

As a buyer, I want to be able to see the bid history for a particular listing so that I know who else is interested in this item and I can have a competitive edge when bidding.

Acceptance Criteria

- On listings that are set to auctions, under the number field where the buyer sets their desired price, a link should be shown to the bid history.
- The bid history shows the username of all other users that have inputted a successful bid and the time at which they inputted the bid.
- Bids that were made unsuccessful are not shown in the list.

CWLC-20 / CWLC-241

① ⚡ ...

As a buyer, I want to be able to see the bid history for a particular listing so that I know who else is interested in this item and I can have a competitive edge when bidding.

CWLC-251

Other buyers that bid but failed to win the auction should not be able to pay for the product

CWLC-250

Check that only the highest bidder have the right to purchasing the product

CWLC-249

Check that the buyer's bid goes through in the case that the bid from the buyer is higher than the current highest bid

CWLC-248

Prevent the bid from going through if the number inputted by the buyer is less than the current highest bid

CWLC-247

Create a number field that will allow the user to input their highest bid

Product Searching

As a buyer, I want to be able to search for products based on their name, so that I can quickly view a particular product I have in mind

Acceptance Criteria

- The website has a search bar on the top bar
 - Entering text into the bar and confirming will move to the search page, which can list products with the following information:
 - Name
 - Seller
 - Star rating
 - Thumbnail image (if one is available)
 - Entered text will be matched to the name of products, and matching products will be displayed

CWLC-20 / CWLC-241

1 · ...

As a buyer, I want to be able to see the bid history for a particular listing so that I know who else is interested in this item and I can have a competitive edge when bidding.

 CWLC-253

[Create UI for successful bidder to pay for the product](#)

 CWLC-252

Create UI for failed bidders that recommends other product of similar nature to them

 CWLC-251

Other buyers that bid but failed to win the auction should not be able to pay for the product

 CWLC-250

Check that only the highest bidder have the right to purchasing the product

 CWLC-249

Check that the buyer's bid goes through in the case that the bid from the buyer is higher than the current highest bid

 CWLC-248

Prevent the bid from going through if the number inputted by the buyer is less than the current highest bid

 CWLC-247

Create a number field that will allow the user to input their highest bid

As a buyer, I want to be able to search for products based on a tag, so that I can narrow down my search based on the type of product I am looking for

Acceptance Criteria

- On the search page, there is a list of popular tags on a sidebar, and a textbox to add additional tag names
- Clicking these tags, or adding new tags through the text box will add them to a list of 'current search tags'
- Clicking tags in the current search tags list will remove them from the list
- If a search query is now entered, only products containing all of the tags selected will be shown

CWLC-22 / CWLC-57

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As a buyer, I want to be able to search for products based on a tag, so that I can narrow down my search based on the type of product

CWLC-148

[Clicking the tags entered through the textbox removes them from the custom tag list, and from the current search filter](#)

CWLC-147

Tags added through textbox are added to list display of custom tags

CWLC-146

Entering text into tags textbox and confirming adds that text string as a filtered tag

CWLC-145

Add textbox and list for adding additional tags to tags section of search page

CWLC-144

Clicking popular toggles their inclusion in the current search filter

CWLC-143

Add list of popular tags as buttons on sidebar in search page

As a buyer, I want to be able to search for products based on a seller so that I can view products by a seller I trust

Acceptance Criteria

- Search queries entered on the search page will also match the names of the sellers of products

CWLC-22 / CWLC-58

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As a buyer, I want to be able to search for products based on a seller, so that I can view products by a seller I trust

CWLC-152

[Make backend search match query text with names of product sellers](#)

As a buyer, I want to be able to rank search results by review score or listing date, so that my search results are more useful

Acceptance Criteria

- On the search page, there are the following buttons:
 - Order by review score
 - Clicking this button will order future searches in descending order by review score
 - Clicking the button when results are already being ordered by review score has no effect
 - Order by listing date
 - Clicking this button toggles its description text between 'ascending' and 'descending'
 - The results of the next search query are correspondingly ordered in either ascending or descending order of listing date
- If the ordering buttons are clicked when the results of a previous search are already being displayed, the search is redone and the results displayed with the new ordering

CWLC-22 / CWLC-59

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As a buyer, I want to be able to rank search results by review score or listing date, so that my search results are more useful

 CWLC-151

Resend previous search request to server, if search mode is changed

 CWLC-150

Make clicking the buttons change the current search's ordering mode

 CWLC-149

Create order by review and order by listing buttons on search page

Delivery

As a seller, I would like to keep track of any deliveries I have made so that any pet or pet products I have sold will not get lost

Acceptance Criteria

- On the sales history page, when one of the sales is clicked, the estimated delivery date is displayed if the item has not arrived yet.
- If the item has arrived, the date on which the item was delivered is displayed

CWLC-40 / CWLC-14

⌚ 1 🔍 ...

As a seller, I would like to keep track of the delivery so that the pet / product will not get lost



CWLC-219

Check that if the item has been delivered, the date on which it arrived is stated instead of an estimate



CWLC-218

Check that on each sales record, the estimated delivery date appears depending on where the buyer is situated



CWLC-217

Check that on each sales record, the username of the recipient is stated



CWLC-216

Check that the product sold appear on the seller's sales history

As a buyer, I would like to see my estimated delivery date so that I know when to expect the product to come

Acceptance Criteria

- On the purchase history page, when one of the purchases is clicked, the estimated delivery date is displayed if item has not arrived yet
- If the item has arrived, the date on which the item was delivered is displayed.

CWLC-40 / CWLC-73

⌚ 1 🔍

As a Buyer, I would like to see my estimated delivery date so that I know when to expect the product to come



CWLC-220

Check that on the user's profile, the admin can access the sales history of the user and see the estimated delivery date on curr...

As an admin, I would like to be able to see a product's estimated delivery date so that any issue between the seller and buyer regarding delivery can be resolved

Acceptance Criteria

- On the user's record, on either the sales history or purchase history is selected, when one of the item is clicked, the estimated delivery date is displayed if item has not arrived yet
- If the item has arrived, the date on which the item was delivered is displayed.

CWLC-40 / CWLC-74

① ⌂ ...

As an Admin, I would like to be able to see a product's estimated delivery date so that any issues that comes up between the seller and buyer regarding delivery can be resolved

CWLC-224

Check that on each record of goods that have arrived that the exact date it arrives is stated

CWLC-223

Check that on each record of currently in transit goods, it shows the estimated delivery date

CWLC-222

Check that on each record of the purchase history, the sender's name is stated

CWLC-221

Check that the product that the buyer has purchased appears on the buyer's purchase history

Sales Tracking

As a seller, I would like to view the sales of each product so that I can use them for the business decision making

Acceptance Criteria

- The seller should have a sales history tab where all sales made by the seller should be shown as a list with the title of each listing headlining each sale.

CWLC-41 / CWLC-71

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As a seller, I would like to view the sales of each product so that I can use them for the business decision making.

CWLC-169

Implement a sorting feature so that sales history can either be sorted by date or sale price

CWLC-168

Create a search bar that allows the seller to search the item by name

CWLC-167

Create UI for the sales history feature on the seller's dashboard

Chatbot

As a seller, I would like to ask the chatbot about the instructions for selling pets so that I know how to sell pets on this platform

Acceptance Criteria

- Entering phrases related to selling an animal into the chatbot window should result in a response giving detailed text instructions on the process of listing an animal for sale. Some examples of phrases that should be correctly identified by the chatbot include:
 - "selling help"
 - "selling a pet"
 - "how can I sell an animal"
 - "instructions on selling"

CWLC-41 / CWLC-71

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As a seller, I would like to view the sales of each product so that I can use them for the business decision making.

CWLC-171

check that the chatbot provides a link back to the seller's listing page

CWLC-170

Correctly identify phrases related to selling pets

<ul style="list-style-type: none"> The response text should also provide a link to the new seller listing page 	
<p>As a seller, I would like to ask the chatbot about instructions to sell pet products so that I have a guideline on how to sell those types of products on this platform</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> Entering phrases related to selling general products into the chatbot window should result in a response giving detailed text instructions on the selling process. Some examples of phrases that should be correctly identified by the chatbot include: <ul style="list-style-type: none"> “Selling goods” “selling cat toys” “Help selling items” “Instructions on selling” The response text should also provide a link to the new seller listing page 	<p>CWLC-27 / CWLC-28 </p> <p>①  ...</p> <p>As a seller, I would like to ask the chatbot about instructions to sell pet products so that I have a guideline on how to sell those types of products on this platform.</p> <p> CWLC-173 Check that the chatbot returns a link to the new seller listing page</p> <p> CWLC-172 Correctly identify phrases that are related to selling pet products</p>
<p>As a seller, I would like to ask the chatbot for help when raising a complaint so that I can resolve a conflict between me and the customer</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> Entering phrases related to submitting a complaint into the chatbot window should result in a response giving detailed text instructions on submitting a complaint. Some examples of phrases that should be correctly identified by the chatbot include: <ul style="list-style-type: none"> “How to submit a complaint” “I have a complaint regarding a buyer” 	<p>CWLC-27 / CWLC-30 </p> <p>①  ...</p> <p>As a seller, I would like to ask the chatbot for help when raising a complaint so that I can resolve a conflict between me and the customer.</p>

	<p> CWLC-175 Check that the chatbot returns information on the steps to submit a complaint</p> <p> CWLC-174 Correctly identify phrases that are related to complaints against a user</p>
<p>As a buyer, I want to ask the chatbot about details of a product so that I can make a decision for my purchase</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Entering phrases related to the description of an item into the chatbot window should result in a response giving detailed text instructions on how to access the description of the listing or show the link to the listing description. Some examples of phrases that should be correctly identified by the chatbot include: <ul style="list-style-type: none"> ○ "Details of product "xxx"" 	<p>CWLC-27 / CWLC-66 </p> <p>As a buyer, I want to ask the chatbot about the details of a product so I can make a decision for my purchase.</p> <p> CWLC-177 Check that the chatbot returns information on how to access the detail of a product on the listing page</p> <p> CWLC-176 Correctly identify phrases that ask for the details of a product</p>
<p>As a buyer, I want to ask the chatbot about the features of a product so I can know the functionalities of the product</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Entering phrases related to the feature of an item into the chatbot window should result in a response giving detailed text instructions on how to access the feature description of the listing or show the link to the listing feature description. Some examples of phrases that should be correctly identified by the chatbot include: 	<p>CWLC-27 / CWLC-67 </p> <p>As a buyer, I want to ask the chatbot about the features of a product so I can know the functionalities of the product.</p>

<ul style="list-style-type: none"> ○ "Features of product "xxx" " 	<p> CWLC-180 Check that the chatbot returns a link to the functionality section of the specified product listing</p> <p> CWLC-179 Check that the chat bot returns information on the steps to access the functionalities of the product on the listing page</p> <p> CWLC-178 Correctly identify phrases that ask for the functionalities of a specific product</p>
<p>As a buyer, I want to ask the chatbot about the warranty of a product so my online purchase will be guaranteed</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Entering phrases related to the warrant of an item into the chatbot window should result in a response giving detailed text instructions on how to access the warranty of the item in the listing or show the link to the warranty section of the listing. Some examples of phrases that should be correctly identified by the chatbot include: <ul style="list-style-type: none"> ○ "Warranty of product "xxx" " 	<p>CWLC-27 /  CWLC-68  </p> <p>As a buyer, I want to ask the chatbot about the warranty of a product so my online purchase will be guaranteed.</p> <p> CWLC-183 Check that it returns a link to the specified product's warranty section of it's listing</p> <p> CWLC-182 Check that it returns information on how to access the warranty section of a product page</p> <p> CWLC-181 Correctly identify phrases asking about the warranty of a product</p>
<p>As a buyer, I want to ask the chatbot about the delivery date of a product so I can collect my purchased item on time</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> ● Entering phrases related to the delivery date of an item into the chatbot window should result in a response giving detailed text instructions on how to access the estimated delivery date of a listing in the buyer's purchase history . Some examples of phrases that should be correctly identified by the chatbot include: <ul style="list-style-type: none"> ○ "When will product "xxx" arrive?" 	<p>CWLC-27 /  CWLC-69  </p> <p>As a buyer, I want to ask the chatbot about the delivery date of a product so I can collect my purchased item on time.</p> <p> CWLC-186 Check that it returns the estimated delivery date if the product was specified</p> <p> CWLC-185 Check that the chatbot returns information on how to access the estimated delivery date on a buyer's purchase history</p> <p> CWLC-184 Correctly identify phrases that are related to estimated delivery dates</p>

As a buyer, I want to ask the chatbot on who to contact when a complaint arise so that I can resolve said conflicts with the seller

Acceptance Criteria

- Entering phrases related to submitting a complaint into the chatbot window should result in a response giving detailed text instructions on submitting a complaint. Some examples of phrases that should be correctly identified by the chatbot include:
 - "How to submit a complaint"
 - "I have a complaint regarding a seller"
 - "I have a complaint regarding an item I bought"

CWLC-27 / CWLC-70

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As a buyer, I want to ask the chatbot on who to contact when a complaint arise so that I can resolve said conflict with the seller.

CWLC-188

Check that it returns information on how to submit a complaint

CWLC-187

Correctly identify phrases related to complaints regarding a purchase

Review

As a seller, I would like to leave comments on buyer's reviews so that I can respond to their complaints and clear up confusion if there need be

Acceptance Criteria

- Under each buyer's review, a seller can input a comment creating a thread that allows the buyer and seller to publicly communicate.
- The seller can also report a comment if they deem it inappropriate.

CWLC-31 / CWLC-32

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As a seller, I would like to leave comments on buyers' reviews so that I can respond to their issues and clear up confusion

CWLC-198

Under each comment made by a user, a textbox should be created that allows sellers to leave replies

<p>As a buyer, I want to leave a comment for a product based on my genuine feeling so that other users can refer to my experience for their purchase</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none">A button to submit a review will be available on which if pressed opens a text field allowing the buyer to input their opinion on the product.	<p>CWLC-31 / CWLC-63 1 ...</p> <p>As a buyer, I want to leave a comment for a product based on my genuine feeling so that other users can refer to it.</p> <p> CWLC-199 At the bottom of the listing page underneath the description, create a textbox that allows users to leave comments on the product</p>
<p>As a buyer, I want to give a rating to my purchased item based on my satisfaction on the whole purchasing experience</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none">A star rating out of 5 is available for buyers to use if they wish to leave a quick review with or without comments.	<p>CWLC-31 / CWLC-64 1 ..</p> <p>As a buyer, I want to give a rating to my purchased item based on my satisfaction on the whole purchasing experience.</p> <p> CWLC-200 <u>In the review section, create a star based rating system that works with the commented review functionality</u></p>



<p>As a buyer, I want to remove my past review of a product if that comment was inappropriate so that other user's purchasing decision would not be affected</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> A "By you" prompt will be shown next to comments made by this specific buyer. A 3 dotted symbol on the right will allow buyers to edit or remove this comment. 	<p>CWLC-31 / CWLC-65</p> <p>As a buyer, I want to remove my past review of a product if that comment was inappropriate so that other users' purchasing decision wouldn't be affected.</p> <p><input checked="" type="checkbox"/> CWLC-203 CWLC-65 / Check that only comments made by this user can only be deleted by this user</p> <p><input checked="" type="checkbox"/> CWLC-202 CWLC-65 / In that option list a remove comment option should be available</p> <p><input checked="" type="checkbox"/> CWLC-201 CWLC-65 / Create the 3 dotted option icon on comments made by this specific user</p>
<p>As an admin, I want to be able to remove any inappropriate review on any product listing so that users can refer to truer reviews for feedback</p> <hr/> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> Each comment will have a 3 dotted symbol next to them that will allow the admin to remove comments. Removed comments should not be seen by other users 	<p>CWLC-31 / CWLC-19</p> <p>As an Admin, I want to be able to remove any inappropriate review comment so that users can refer to the true feedback.</p> <p><input checked="" type="checkbox"/> CWLC-197 CWLC-19 / Check that the deleted comment is unable to be seen by other users</p> <p><input checked="" type="checkbox"/> CWLC-196 CWLC-19 / In the option list, create a delete comment functionality</p> <p><input checked="" type="checkbox"/> CWLC-195 CWLC-19 / Create a 3 dotted icon next to each comment</p>

Wishlist

<p>As a buyer, I would like to add items to a wishlist so that I can keep track of the items I like</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> A tab will be available to the buyer on the dashboard that links them to their wishlist. This is a list of all the product listings that the buyer wishes to have. 	<p>CWLC-24 / CWLC-60  1  </p> <p>As a buyer, I would like to add items to a wish list so that I can keep track of the items I like.</p> <p> CWLC-159 Make sure that list is displayed properly on the user's dashboard when prompted</p> <p> CWLC-158 Create UI for "Wishlist" tab on the user's dashboard</p>
<p>As a buyer, I would like to receive notifications on my wishlist when a product is available or on sale so that my search results are more useful</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> Any sales, discount or availability associated with items on the wishlist will be notified to the user. This is shown by a number next to the wishlist tab which shows the number of notifications available to the buyer. Next to each item on the wish list, a 3 dotted symbol will show all actions allowed to be taken by the user. One of the options will be to mute any notification made by this item. 	<p>CWLC-24 / CWLC-61  1  </p> <p>As a buyer, I would like to have a notification on wishlist when the products are available or on sale so that I won't miss the product.</p> <p> CWLC-163 Create a system where the number of notifications is shown on the wishlist tab button</p> <p> CWLC-162 Create a mute notification function</p> <p> CWLC-161 Create a system where notification appears when a product on the wishlist that was out of stock is now available</p> <p> CWLC-160 Create a system where notification appears when a product in the wishlist is on discount</p>

As a buyer I would like to remove items from my wishlist so that I would not receive anymore notifications from said item

Acceptance Criteria

- Next to each item on the wish list, a 3 dotted symbol will show all actions allowed to be taken by the user. One of the options will show the remove action.

CWLC-24 / CWLC-62

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As a buyer, I would like to remove items from my wishlist so that I wouldn't accidentally add the item into my shopping cart.

CWLC-166

Items that have notifications but are then removed have their notifications removed from the count

CWLC-165

Make sure that items that have been removed do not create any notifications in the future

CWLC-164

Create remove item functionality

Product Moderation

As an Admin, I want to be able to moderate products so that product listings that do not abide by our guidelines can be removed or omitted from the search results

Acceptance Criteria

- On each listing page, there will be a “Options” tab which allows the admin to remove or suspend the listing and also give reason to the action.
- There will be some general reasons such as:
 - “Inappropriate listing name”
 - “Inaccurate description”

or if the reason is not covered, the admin can input a custom reason in a text field.

CWLC-29 / CWLC-12

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As an Admin, I want to be able to moderate products so that product listings that do not abide by our rules can be removed and omitted from the search results.

CWLC-194

Make sure that the seller who posted the removed listing receives an email regarding the reasons for removal

CWLC-193

Make sure that the listing is removed from the available searches

CWLC-192

Create default generic reasons that the admin can choose when deleting listing

CWLC-191

Create textbox that allows admin to submit reason for removal

CWLC-190

Create a remove ad option in that option list

CWLC-189

Create a 3 dotted option icon on a product's listing page next to the listing title

User Management

As an admin, I want to be able to manage users such that users that have breached our terms of use can have their privileges rescinded

Acceptance Criteria

- Admins can search for users by their username and on their profile, there will be an “Options tab” which allows the admin to suspend the user account followed by reasons for the action.
- There will be some general reasons such as:
 - “Antisocial behavior”
 - “Breached user terms too many times”
 Or if the reason is not covered, the admin can input a custom reason in a text field
- The admin can also adjust the suspension to a set amount of days or a permanent basis.

CWLC-33 / CWLC-13

① ...

As an Admin, I want to be able to manage users such that users that have breached our terms of use whether they are buyers or sellers can have their privileges rescinded.

CWLC-211

Create a dropdown that lets the admin choose the length of the suspension

CWLC-210

Check that listings made by users that have been suspended are removed from the available searches

CWLC-209

Create default generic reasons that the admin can choose from instead of inputting a custom reason for suspension

CWLC-208

Create a textbox that allows the admin to input reason for suspension

CWLC-207

Create a suspend account button

CWLC-206

Create an option tabs on each user's profile that is only accessible to the admin

CWLC-205

Create a search bar that searches the user based on their username

CWLC-204

Create an interface for the admin to moderate users in

<p>As an admin, I want to be able to view a buyer's purchase history so that I can verify the seller they got the item from and resolve any conflict that arise</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> On a buyer's profile, the admin can view their purchase history tab and the list of all purchases made by this specific buyer is shown on the list followed by all associated descriptions of each listing if the item is pressed. 	<p>CWLC-33 / CWLC-15</p> <p>① ⌂ ...</p> <p>As an Admin, I want to be able to view a buyer's purchase history so that I can verify the seller they got the item from and resolve any conflicts that arise.</p> <p> CWLC-213 Check that all the information about a product on the buyer's purchase history is accessible to the admin</p> <p> CWLC-212 In the user's profile, make sure that the admin have access to the buyer's purchase history</p>
<p>As an admin, I want to be able to view a seller's selling history so that I can verify that the seller indeed sold the specified product to the specified buyer</p> <p>Acceptance Criteria</p> <ul style="list-style-type: none"> On a seller's profile, the admin can view their sales history tab and the list of all sales made by this specific buyer is shown on the list followed by all associated descriptions of each listing if the item is pressed. 	<p>CWLC-33 / CWLC-17</p> <p>① ⌂ ...</p> <p>As an Admin, I want to be able to view a seller's selling history so that I can verify that the seller indeed sold the specified product to the specified buyer.</p> <p> CWLC-215 Check that the admin has access to the information of each product in the seller's sales history</p> <p> CWLC-214 In the user's profile, check that the admin has access to the user's sales history</p>

Recommendation System

As a buyer, I want to see products relevant to me on the dashboard page, so that I will be interested in browsing them

Acceptance Criteria

- The dashboard page displays rows of products in a tiled layout
- The products displayed to each user are served by the recommendation system
 - Products are recommended based on the similarity of the tags of products the buyer has looked at / purchased previously, and the tags of the products themselves
 - Product recommendations are also weighted by their review score and price

CWLC-48 / CWLC-267

① ⚡ ...

As a buyer, I want to see products relevant to me on the dashboard page, so that I will be interested in browsing them

CWLC-271

Product recommendation are given scores based on their review score and price

CWLC-270

Products recommended are based on tags the buyer has looked at or purchase recently

CWLC-269

Create UI for the dashboard in a tile layout displaying the products in rows



Sprints

Sprints will be around 2 weeks long. This will allow us to present the progressive demos in week 5, week 8 and the final presentation in week 10. There will also be an extra week's time for us to complete more objectives before our progressive demo in week 8, so we are expecting the main features will be nearly completed after sprint 2. Retrospective meeting will be conducted after the progressive demo in week 5 and week 8.

Sprint	Start Date	End Date	Sprint Objectives
1	07/03/2021	17/03/2021	For the first sprint we will be implementing the most of the basic features of the product in the backend, and a simple front end so we can present a functional website. This will include user registration, user login, product searching, product management, and product purchasing.
2	18/03/2021	07/04/2021	This sprint we will be implementing more advanced functionalities that are core to our system. This includes the personalised recommendation system, the chatbot system, sales tracking and the auction novel feature.
3	08/04/2021	21/04/2021	This sprint we will be finishing up the rest of the functionalities such as product review, delivery estimation date, user management and product moderation.

User Stories for first sprint

As a seller, I would like to be able to register an account so that I have access to the site.	Registration	CWLC-23	↑	-
As a buyer, I would like to register for the platform by entering my email, password and password confirmation so that I can purchase pets.	Registration	CWLC-72	↑	-
As a seller, I would like to receive a confirmation email once I have registered for the platform so that I know my account has been created.	Registration	CWLC-26	↑	-
As a buyer, I would like to receive a confirmation email once I have registered for the platform so that I know my account has been created.	Registration	CWLC-35	↑	-
As a seller, I would like to add a nickname to my account so that a buyer can recognise my e-store.	Registration	CWLC-37	↑	-
As a buyer, I would like to add a nickname to my account so that communication between buyers will be easier.	Registration	CWLC-36	↑	-
As a seller I would like to be able to log in to my seller account so that I can update my personal, contact and payment details.	Login	CWLC-38	↑	-
As a buyer, I want to login to my personal account so that I can purchase pets.	Login	CWLC-3	↑	-
As an Admin, I want to be able to login to the platform so that I have access to all the complaints raised by both buyers and sellers.	Login	CWLC-10	↑	-
As a seller, I would like to reset my password so that I can still login to my account when I have forgotten my password.	Login	CWLC-76	↑	-
As an admin, I would like to reset my password so that I can still login to my account when I have forgotten my password.	Login	CWLC-11	↑	-



<input checked="" type="checkbox"/> As a buyer, I would like to reset my password so that I can still login to my account when I have forgotten my password.	Login	CWLC-4		
<input checked="" type="checkbox"/> As a buyer, I want to be able to view the details of products, so that I can make an informed purchase	Purchase	CWLC-52		
<input checked="" type="checkbox"/> As a buyer, I want to be able to view a history of my purchases, so I have a record of items I have bought	Purchase	CWLC-53		
<input checked="" type="checkbox"/> As a buyer, I want to be able to see the estimated delivery date on any confirmed purchases I make so that I know when the pro	Purchase	CWLC-55		
<input checked="" type="checkbox"/> As a buyer, I want to be able to remove products from my shopping cart so that I wouldn't accidentally purchase them.	Purchase	CWLC-51		
<input checked="" type="checkbox"/> As a buyer, I want to be able to add products from the store into my shopping cart, so that I can receive the pets and pet produ	Purchase	CWLC-49		
<input checked="" type="checkbox"/> As a buyer, I want to be able to cancel my purchase before the transaction success so that I wouldn't be charged for an unwanted product	Purchase	CWLC-54		
<input checked="" type="checkbox"/> As a buyer, I want to be able to search for products based on a tag, so that I can narrow down my search based on the tag	Product Searching	CWLC-57		
<input checked="" type="checkbox"/> As a buyer, I want to be able to rank search results by review score or listing date, so that my search results are more relevant	Product Searching	CWLC-59		
<input checked="" type="checkbox"/> As a buyer, I want to be able to search for products based on a seller, so that I can view products by a seller I trust	Product Searching	CWLC-58		
<input checked="" type="checkbox"/> As a buyer, I want to be able to search for products based on their name, so that I can quickly view a particular product	Product Searching	CWLC-56		
<input checked="" type="checkbox"/> As an Admin, I want to be able to moderate products so that product listings that do not abide by our rules can be removed	Product Moderation	CWLC-12		
<input checked="" type="checkbox"/> As an Admin, I want to be able to set recommendation pages manually based on events so that buyers are able to see relevant products	Recommendation System	CWLC-18		

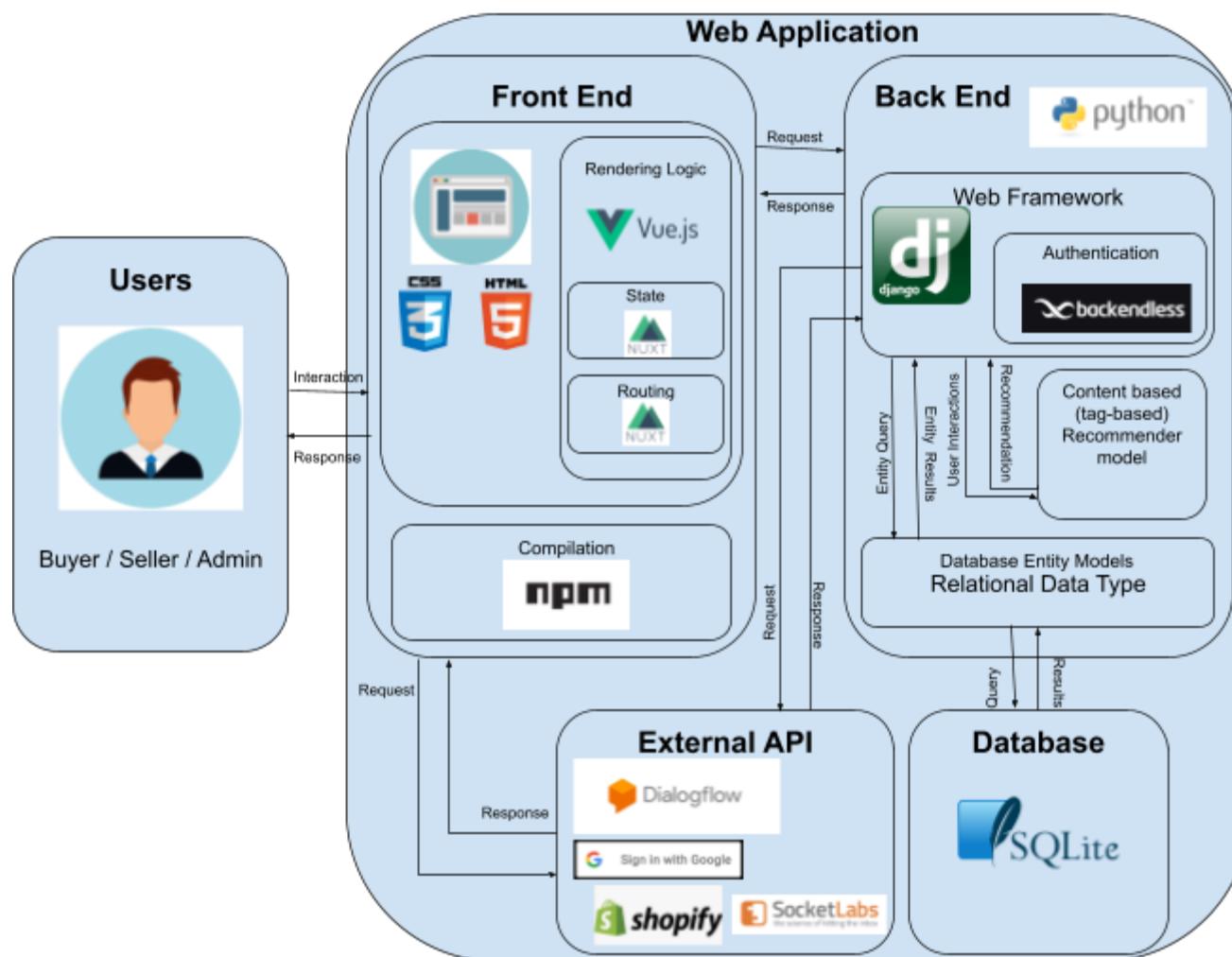
Backlog (unprioritized stories)

<input checked="" type="checkbox"/> As an Admin, I want to be able to manage users such that users that have breach our terms of use whether they are buyers or sellers so that I can verify the user's identity.	User Management	CWLC-13		
<input checked="" type="checkbox"/> As an Admin, I want to be able to view a buyer's purchase history so that I can verify the seller they got the item from is legitimate.	User Management	CWLC-15		
<input checked="" type="checkbox"/> As an Admin, I want to be able to view a seller's selling history so that I can verify that the seller indeed sold the specific item.	User Management	CWLC-17		
<input checked="" type="checkbox"/> As an Admin, I want to be able to remove any inappropriate review comment so that users can refer to the true feedback.	Review	CWLC-19		
<input checked="" type="checkbox"/> As a seller, I would like to keep track of the delivery so that the pet / product will not get lost.	Delivery	CWLC-14		
<input checked="" type="checkbox"/> As a seller, I would like to ask the chatbot about instructions for selling pets so that I am able to sell pets on this platform.	Chatbot	CWLC-25		
<input checked="" type="checkbox"/> As a seller, I would like to ask the chatbot about instructions to sell pet products so that I have a guideline on how to sell those types of products.	Chatbot	CWLC-28		
<input checked="" type="checkbox"/> As a seller, I would like to ask the chatbot for help when raising a complaint so that I can resolve a conflict between me and the buyer.	Chatbot	CWLC-30		
<input checked="" type="checkbox"/> As a seller, I would like to leave comments on buyers' reviews so that I can respond to their issues and clear up confusion.	Review	CWLC-32		
<input checked="" type="checkbox"/> As a seller, I want to be able to list new products for sale, so that other users can view and purchase them.	Product Management	CWLC-42		
<input checked="" type="checkbox"/> As a seller, I want to be able to set details of a product, such as name, images, and description, so that it is easier for potential buyers to find my products.	Product Management	CWLC-43		
<input checked="" type="checkbox"/> As a seller, I want to be able to browse and set tags for a product i've listed, so that it is easier for potential buyers to find my products.	Product Management	CWLC-44		
<input checked="" type="checkbox"/> As a seller, I want to be able to view the name and details of the purchasers of my products, so I can ship to them directly.	Product Management	CWLC-45		

<input checked="" type="checkbox"/> As a buyer, I would like to add items to a wish list so that I can keep track of the items I like.	Wishlist	CWLC-60		
<input checked="" type="checkbox"/> As a buyer, I would like to have a notification on wishlist when the products are available or on sale so that I won't miss the product.	Wishlist	CWLC-61		
<input checked="" type="checkbox"/> As a buyer, I would like to remove items from my wishlist so that I wouldn't accidentally add the item into my shopping cart.	Wishlist	CWLC-62		
<input checked="" type="checkbox"/> As a buyer, I want to leave a comment for a product based on my genuine feeling so that other users can refer to it.	Review	CWLC-63		
<input checked="" type="checkbox"/> As a buyer, I want to give a rating to my purchased item based on my satisfaction on the whole purchasing experience.	Review	CWLC-64		
<input checked="" type="checkbox"/> As a buyer, I want to remove my past review of a product if that comment was inappropriate so that other users' purchasing decis	Review	CWLC-65		
<input checked="" type="checkbox"/> As a buyer, I want to ask the chatbot about the details of a product so I can make a decision for my purchase.	Chatbot	CWLC-66		
<input checked="" type="checkbox"/> As a buyer, I want to ask the chatbot about the features of a product so I can know the functionalities of the product.	Chatbot	CWLC-67		
<input checked="" type="checkbox"/> As a buyer, I want to ask the chatbot about the warranty of a product so my online purchase will be guaranteed.	Chatbot	CWLC-68		
<input checked="" type="checkbox"/> As a buyer, I want to ask the chatbot about the delivery date of a product so I can collect my purchased item on time.	Chatbot	CWLC-69		
<input checked="" type="checkbox"/> As a buyer, I want to ask the chatbot on who to contact when a complaint arise so that I can resolve said conflict with the seller.	Chatbot	CWLC-70		
<input checked="" type="checkbox"/> As a seller, I would like to view the sales of each product so that I can use them for the business decision making.	Sales Tracking	CWLC-71		
<input checked="" type="checkbox"/> As an Admin, I would like to be able to see a product's estimated delivery date so that any issues that comes up between the sell	Delivery	CWLC-74		

<input checked="" type="checkbox"/> As a Buyer, I would like to see my estimated delivery date so that I know when to expect the product to come	Delivery	CWLC-73		
<input checked="" type="checkbox"/> As a buyer, I would like to be able to assign a nickname to my account so that other users can identify who I am on this platfc	Registration	CWLC-77		
<input checked="" type="checkbox"/> As a seller, I would like to be able to assign a nickname to my account so that other users can identify me online.	Registration	CWLC-78		

Software Architecture





Front End

View Layer

In order to build the user interface, we have decided to use *Vue.js*. *Vue.js* is a progressive framework for JavaScript used to build web interfaces and one-page applications. The features of *Vue.js* mainly focus on declarative rendering and component composition. Since the core library of *Vue.js* is focused on the view layer only, it will be used as the core frontend application framework. To achieve the advanced features which are required for complex applications like routing and state management, we will be using the most popular supporting library, *Nuxt.js*. *CSS* and *HTML5* will also be used to format the layout of the webpage, since we will have the freedom to control the font, color, size of text, spacing between elements, and even the screen sizes.

Back End

Business Layer

Our business layer will be using the interpreted, high-level and general-purpose programming language, *Python*. Although there are some other programming languages for backend design, such as *C#* and *Java*, it consumes more time on the algorithms and heuristics due to their complexity compared with *Python*. *Python* has a clear structure of coding, high readability, flexible, easy-to-use, supports vast libraries and extensions, and most of our developers are familiar with it.

To develop the backend web application, *Django* has been chosen to be the web framework due to its clean, pragmatic design and powerful form library that handles rendering forms as *HTML*, validating user-submitted data, and converting that data to native *Python* types. The authentication of the platform will be implemented by *Backendless*, Visual App Development Platform (VADP) that combines database management functionality, user and API with a simple interface and UI Builder.



Data Layer

Since we will be using *Django* as the open-source framework for backend web, *SQLite* has been chosen to be the relational database management system. It is because *Django* supports as many features as possible on all database backends, like *PostgreSQL*, *MySQL*, *Oracle*, and *SQLite*. The advantages of *SQLite* were considered to achieve the goal of our product, as we do not require a large amount of data. *SQLite* is easy to set up, light-weight, can be embedded into other applications easily, portable, high speed to finish tasks, and most importantly, it fits the best for simple cases like a small system. That is also the reason why we didn't choose other relational database management systems, such as *MySQL* and *PostgreSQL*, since we only need to store a small amount of information.

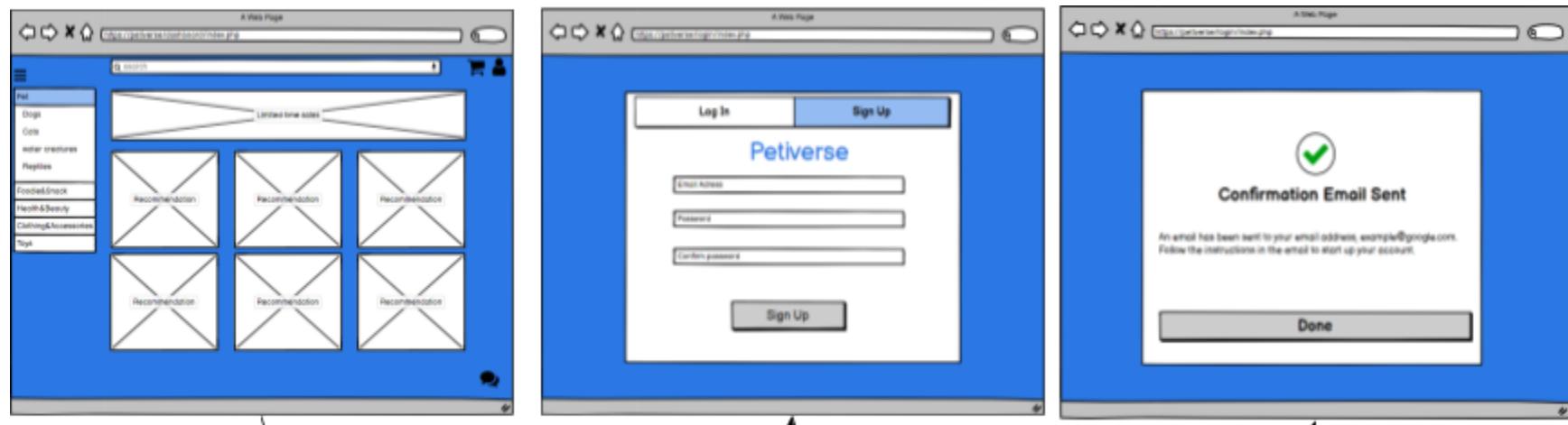
External API

In order to achieve the features that were mentioned earlier, we will be importing some external API into our implementation in the back-end or the front-end.

- Dialogflow --- Design a conversational user interface into the chatbot
- Google Sign-in --- Sign up and sign in with a Google account
- Shopify --- Receive access to the data from Shopify-based online stores
- SocketLabs --- Provides real-time data upon request, and supports the sending of outbound email via HTTP

Interface and Flow

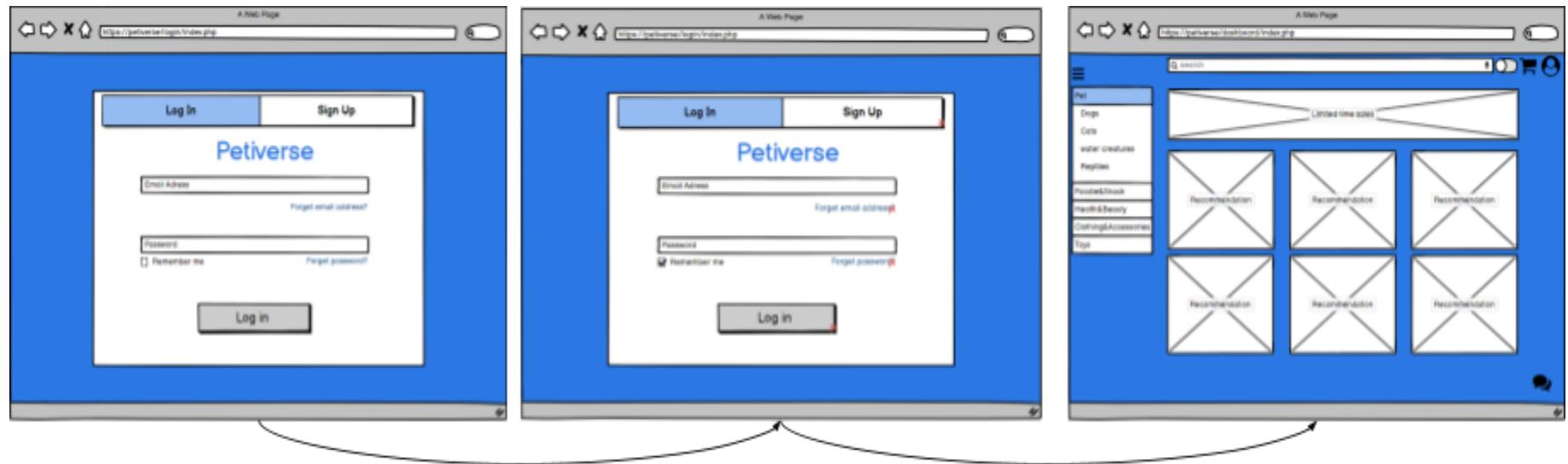
Sign up



User will be redirected to the login/sign up page if they try to add products into cart or clicking the user icon.

After filling the required information and pressing the sign up button, user will be redirected to the reminder page to notify user to verify the provided email.

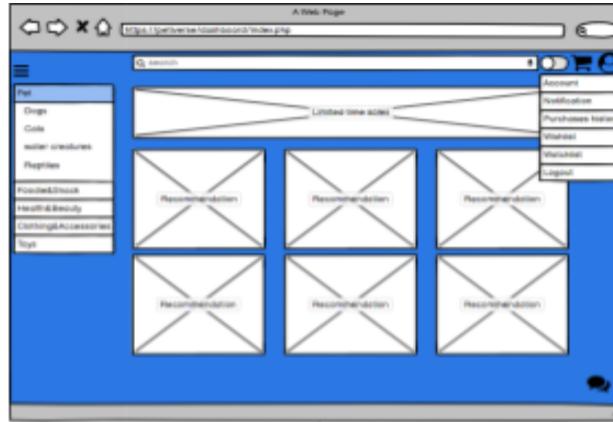
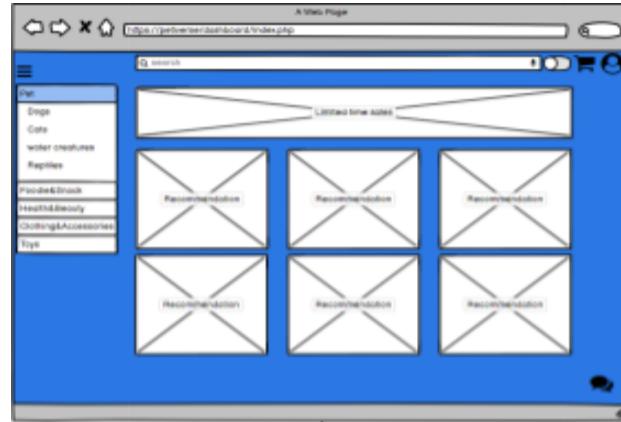
Login



The remember me
checkbox is optional for user
to tick.
After ticking, a tick will be
showed onto the checkbox.

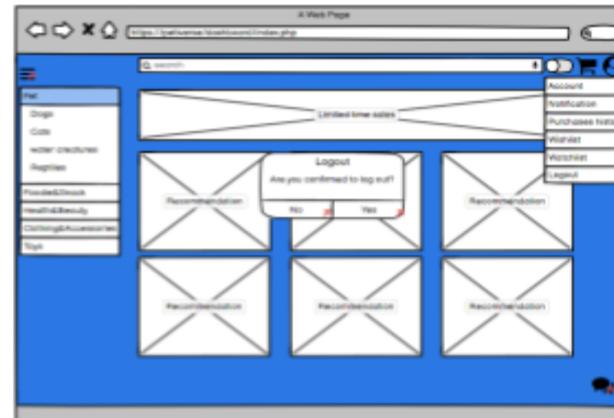
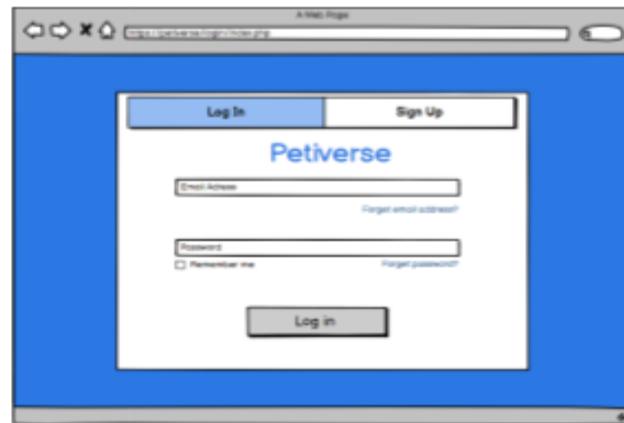
After pressing login
button, user will be sent to
the customised
dashboard page if the
filled in details are
correct..

Logout



Press the user icon, and a menu will appear.

Press logout option on menu will trigger the logout alert to pop up.



Press Yes on the pop up logout alert and user will be sent to the Login page.
Press No will close the pop up alert.

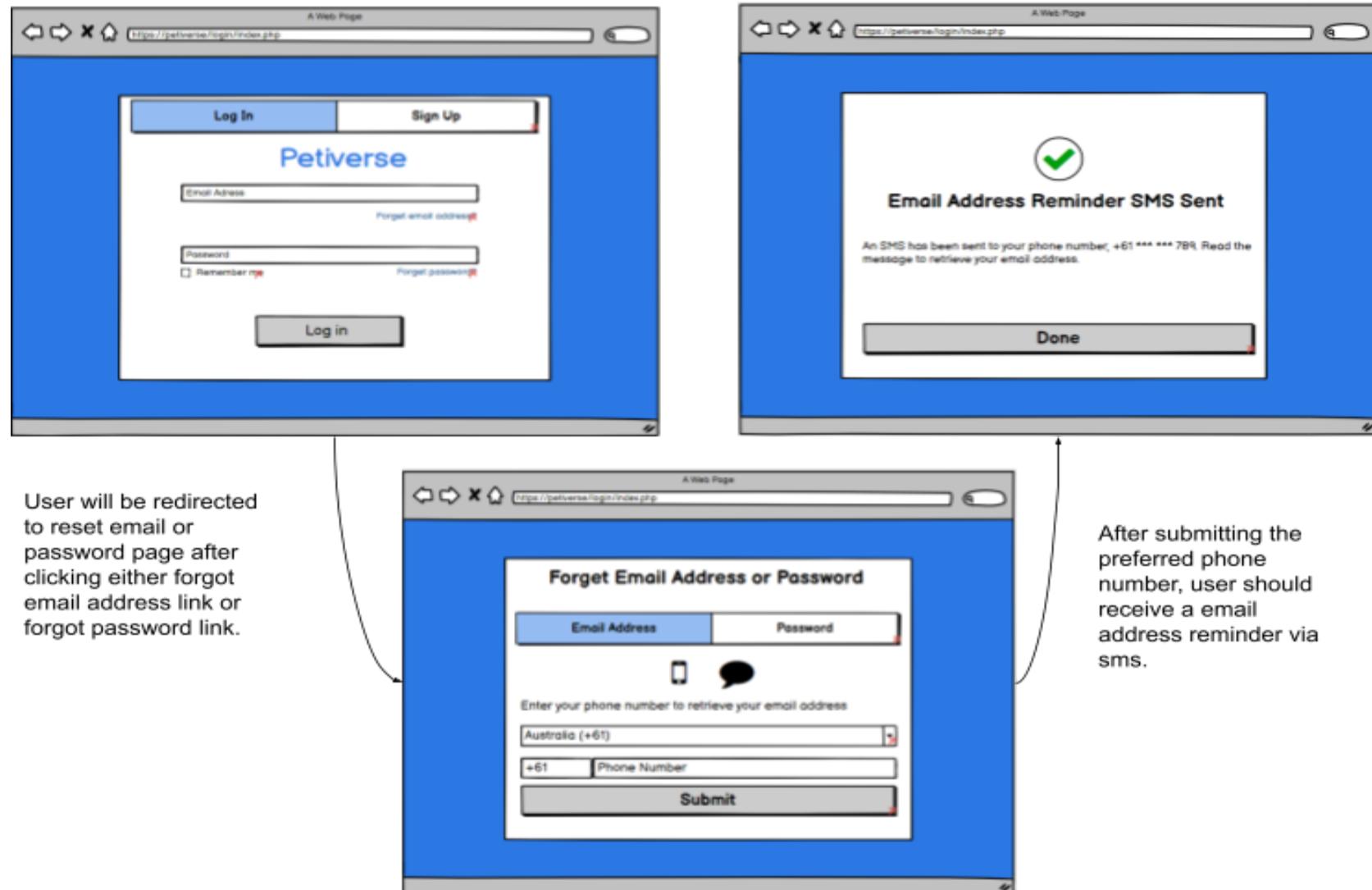
Forget /reset email address using default country phone numbers.



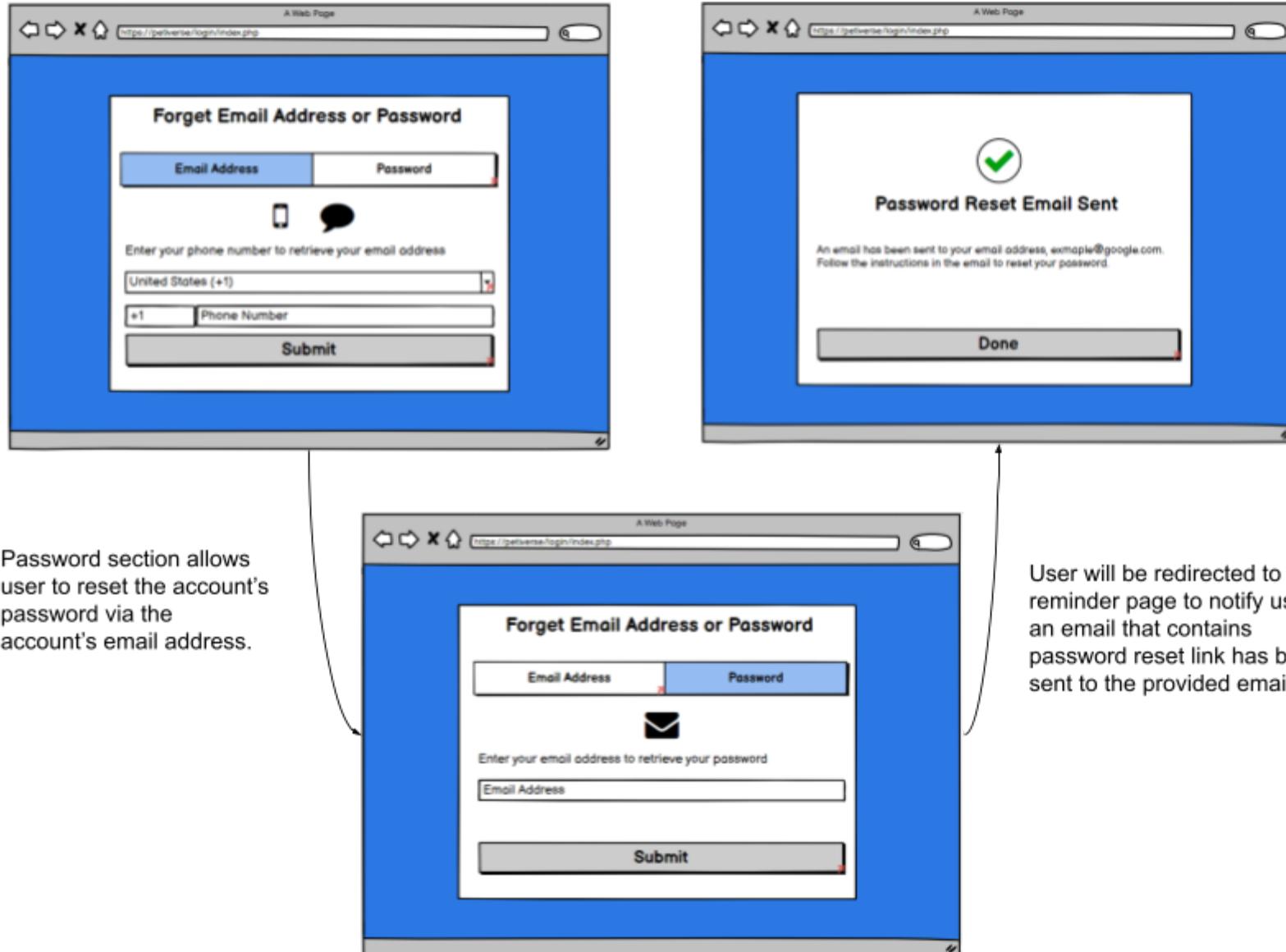
Forget /reset email address - changing of the country code



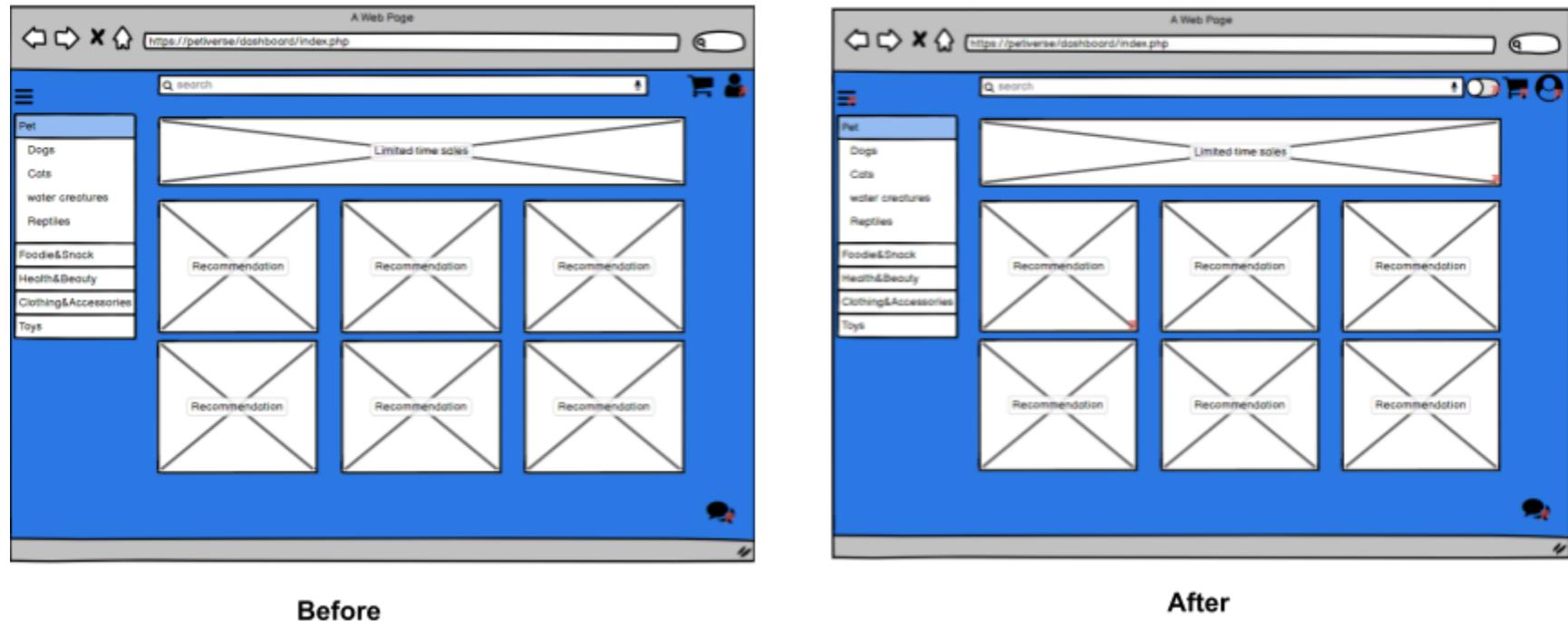
Forget / reset email address using different country phone numbers.



Forget /reset password using email address.

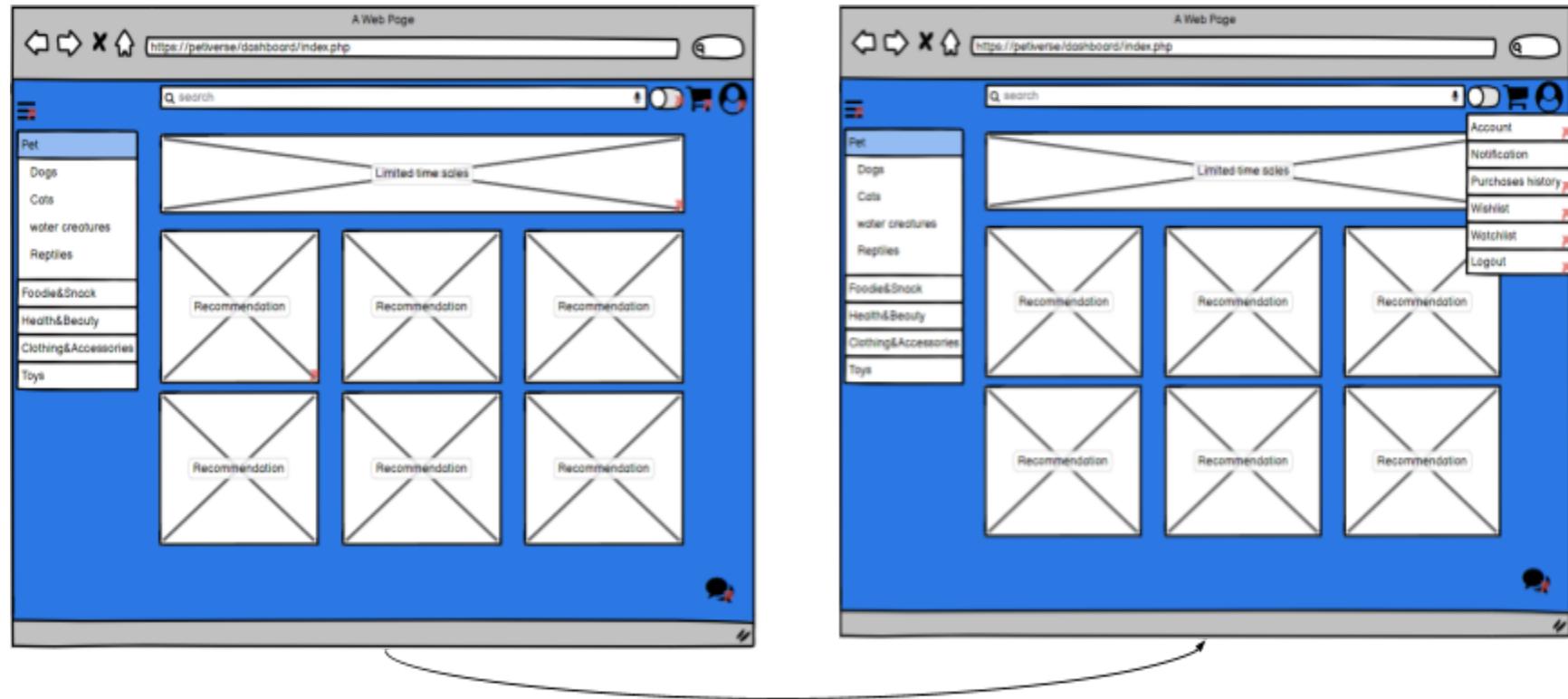


Before and after login



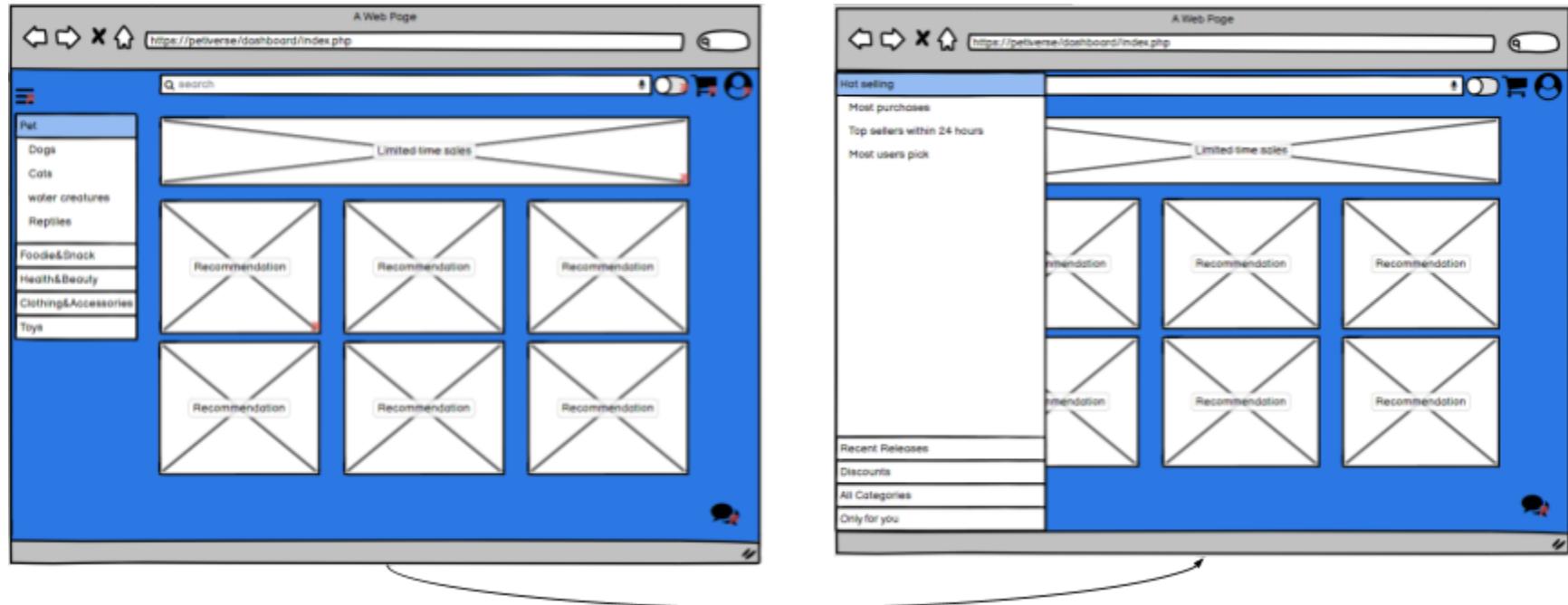
First, the guest icon changed into the user icon or profile picture.
Second, the default recommending products will change to personalise recommendations based on the user purchase interest and habit.
Third, the switch icon showed up beside the shopping cart icon which allows user to switch between buyer mode or seller mode. Currently, buyer mode is shown as the **After**.

Buyer menu



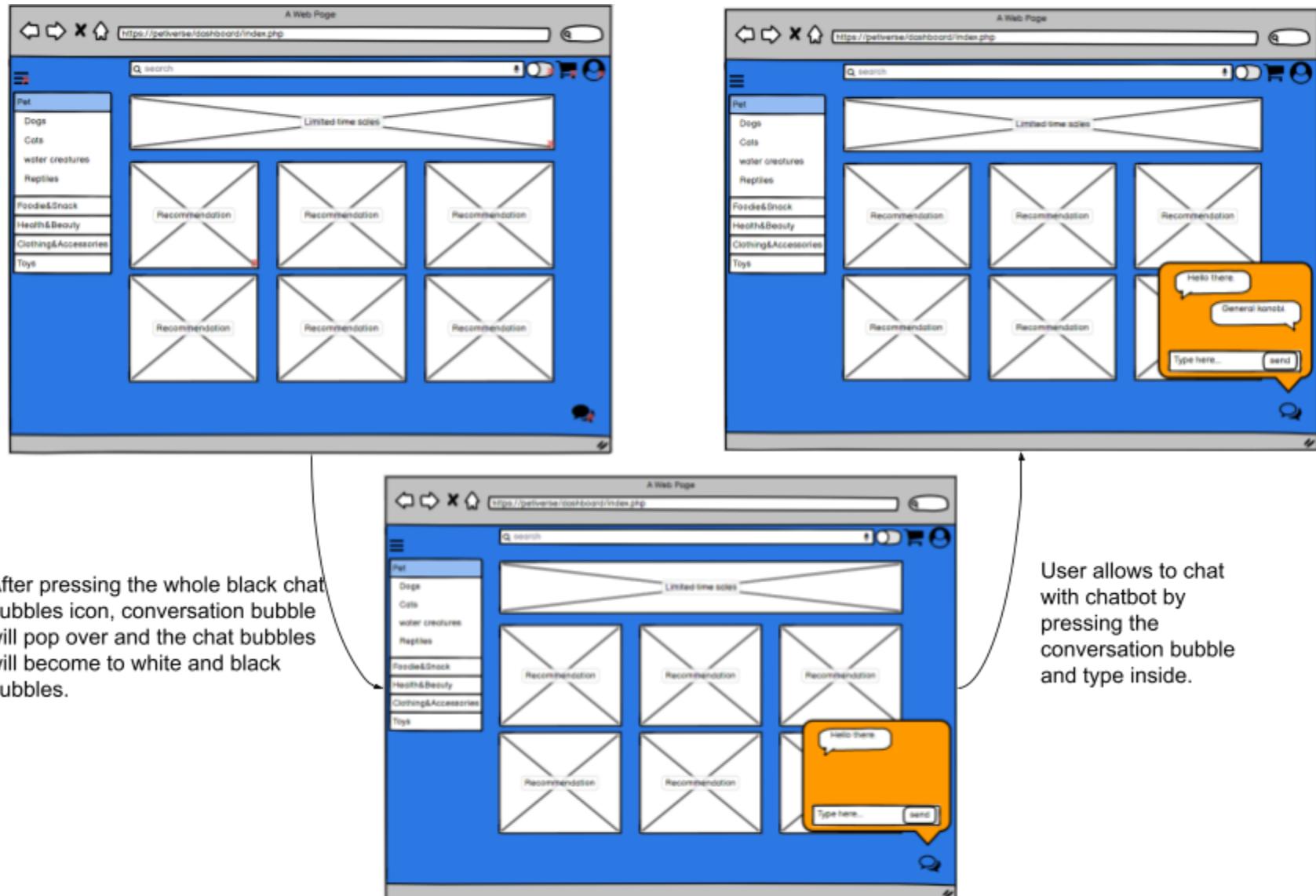
After pressing the user icon, the menu bar will appear under the user icon.

Burger icon

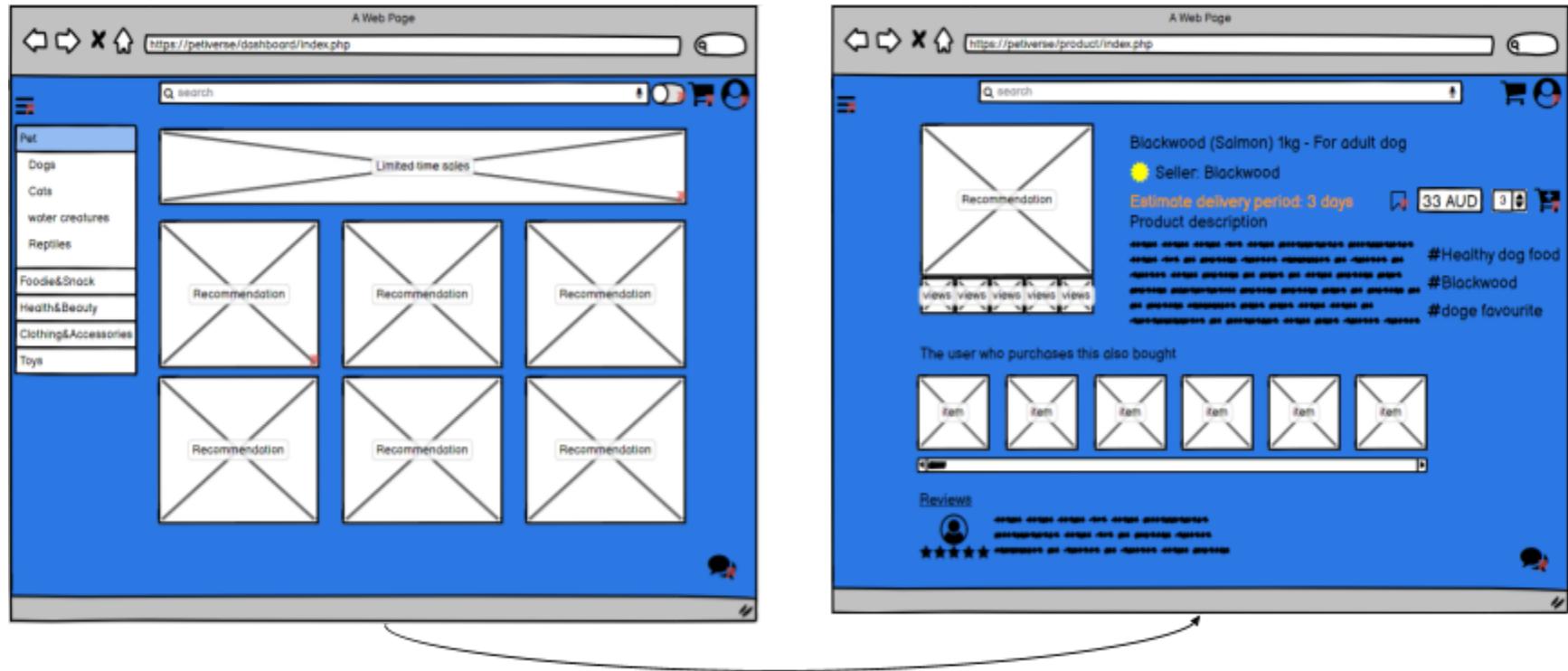


After pressing the burger icon,
the categories list will be
displayed.

Chatbot

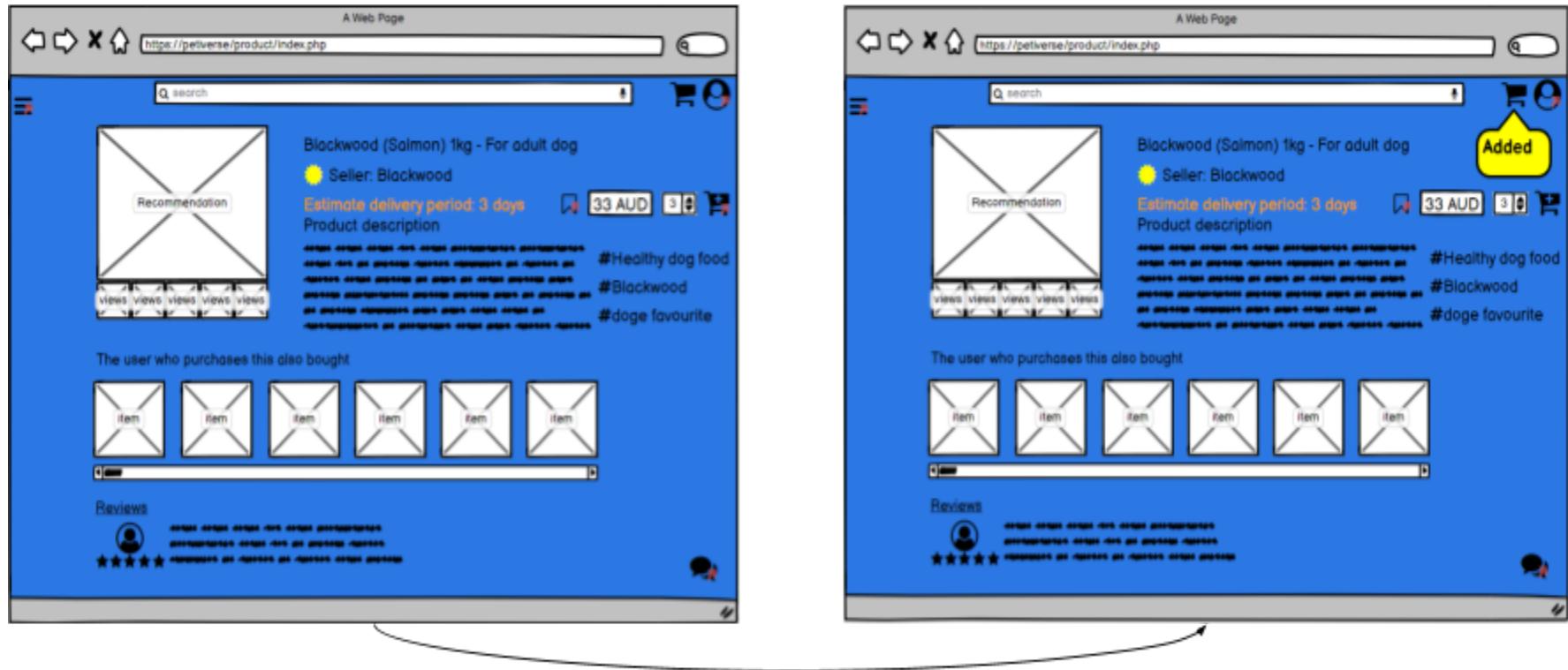


Access to specific product page



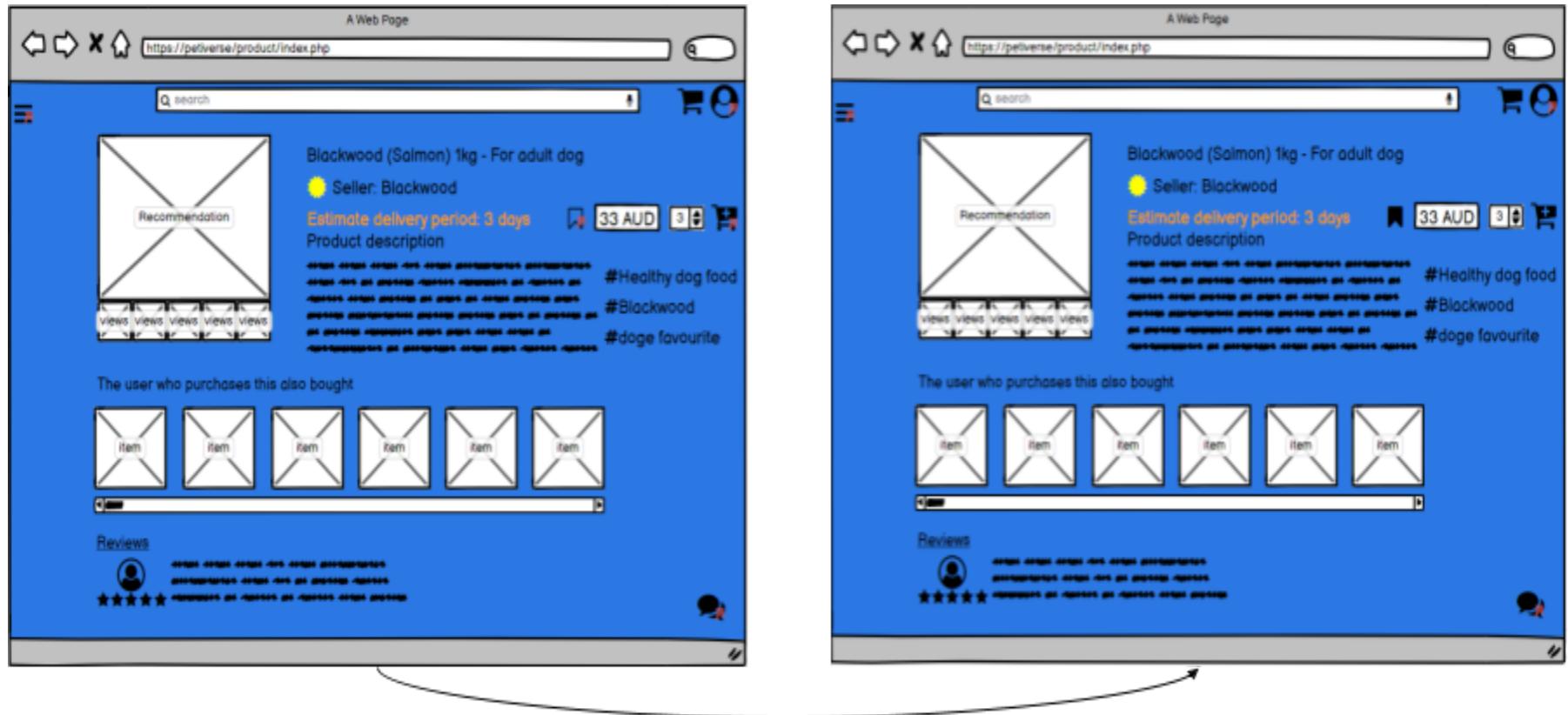
User can access to a specific product page by clicking the product image.
The details of the product will be display in the product page.

Add an item into shopping cart



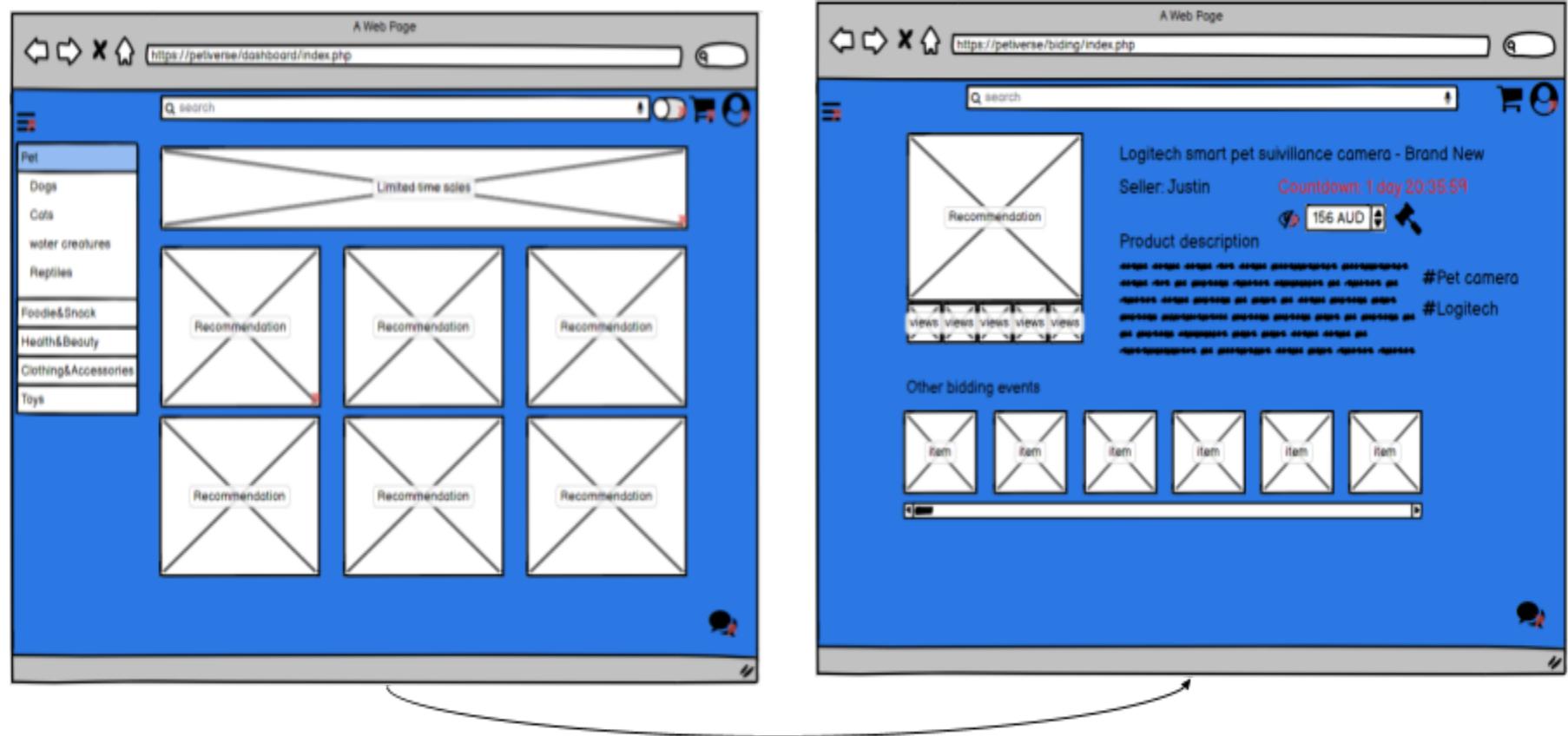
User can add an item into personal shopping cart by pressing the cart icon that with a plus icon inside.
After pressing it, the **added** bubble will pop up under the top right corner shopping cart.

Add an item into wishlist



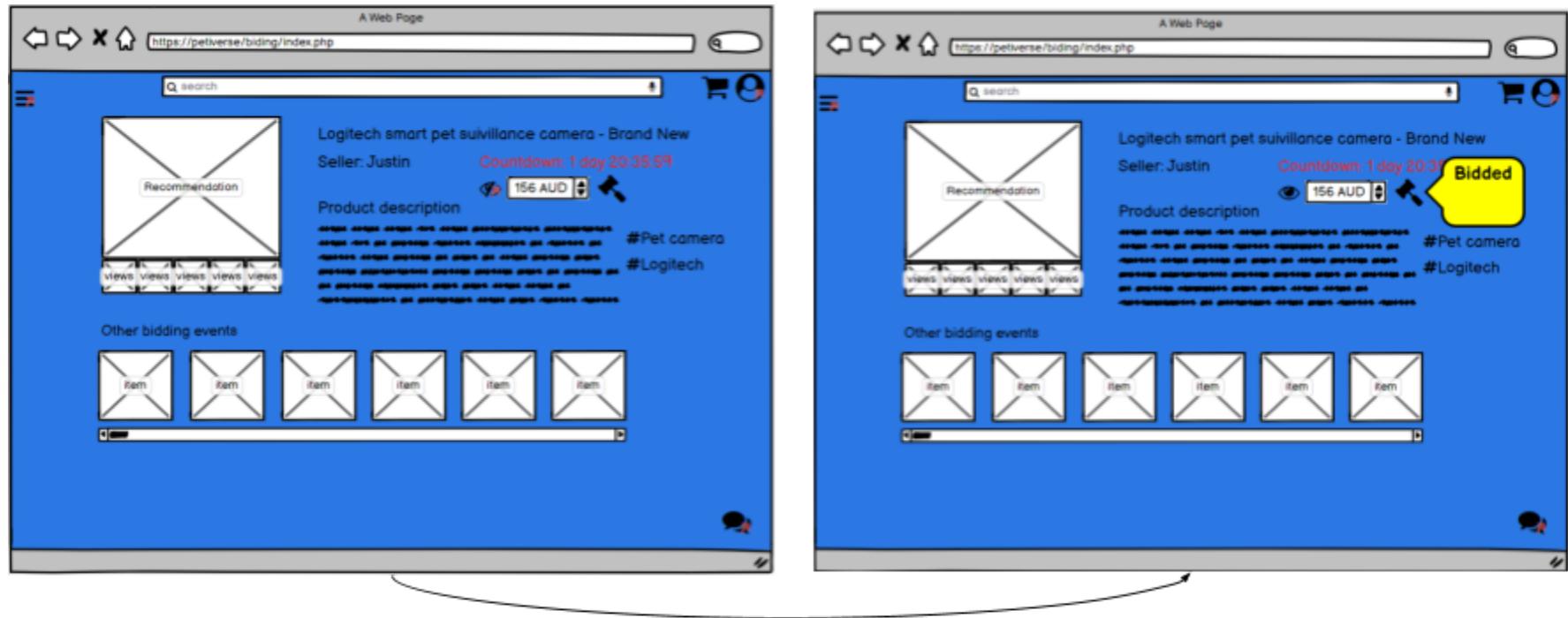
User can add an item into wishlist by pressing the hollow bookmark icon.
After pressing it, the bookmark icon will be filled with black colour to indicate the item is successfully added.

Access to bid item page



User can access to a specific bidding item page by clicking the limited time sales banner.
The details of the product will be display in the bidding page.

Make a bid

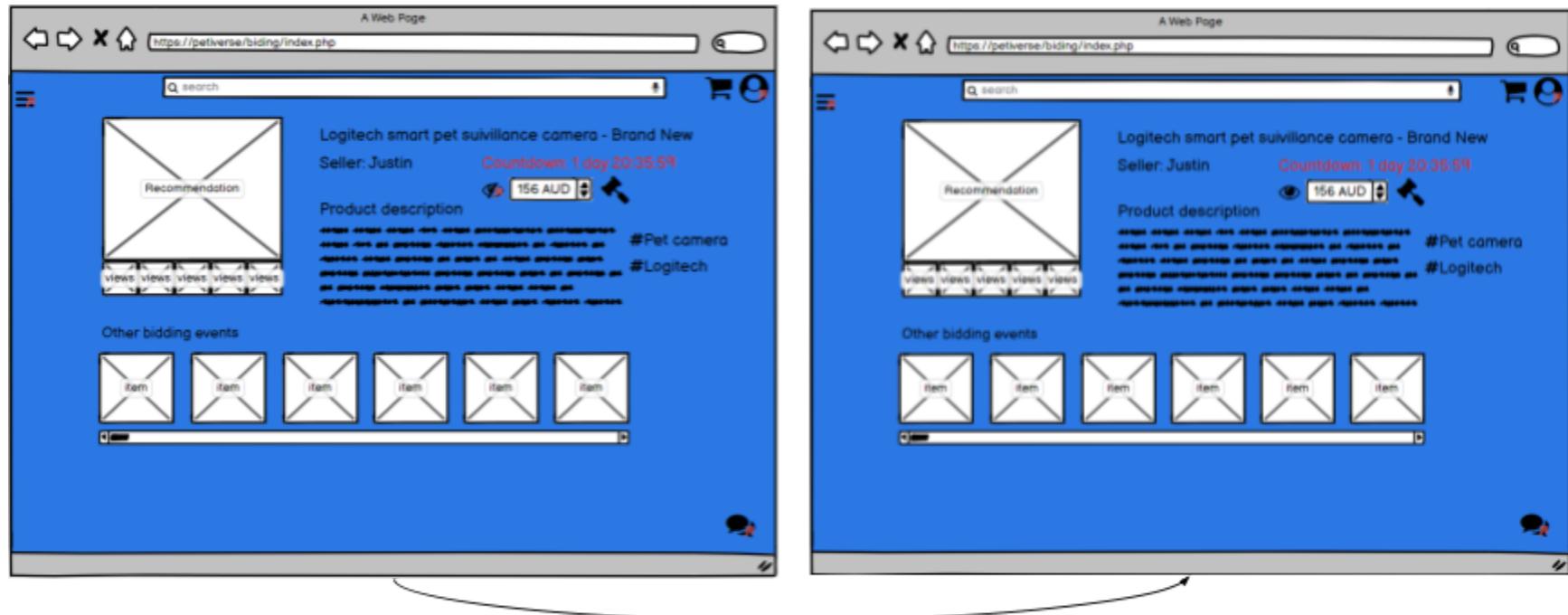


User can set a bidding price using the number stepper and confirm the bid by pressing the gavel icon.

The **bidden** bubble will pop up to indicate the bid has been made.

The slashed eye icon will become the full eye icon which indicates the bidding item has been added into watchlist.

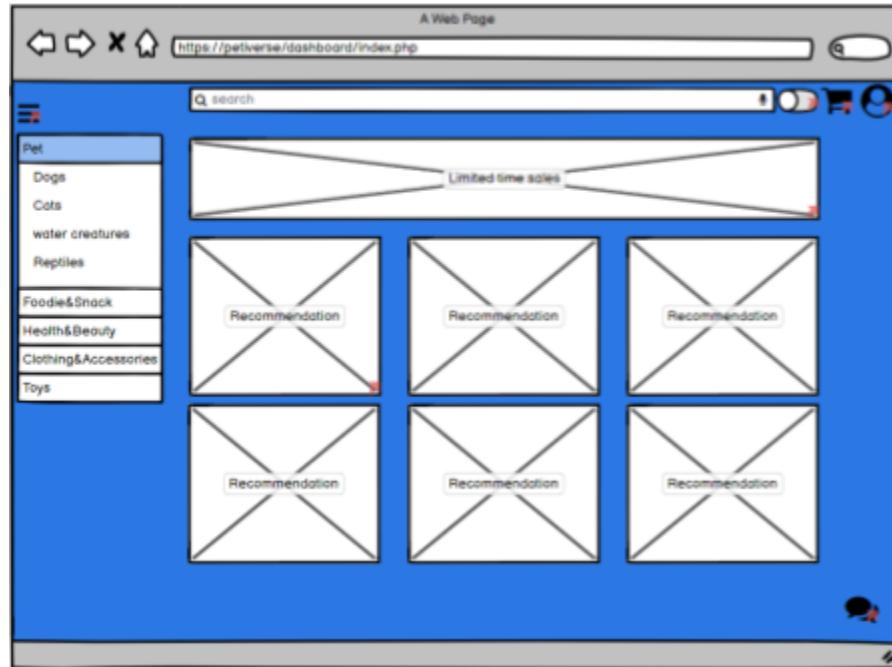
Add an item into watchlist



User can press the slashed eye icon to add an item into watchlist without making a bid.

The eye icon will change to full eye icon to indicate the item has been successfully added.

Product upload page



A screenshot of a web browser window titled 'A Web Page' with the URL <https://petiverse/seller/index.php>. The page has a blue header bar with browser controls. It features a large central input field labeled 'Upload Images' with a large 'X' over it. To the right of this are several input fields: 'Set product name' (with a dropdown arrow), 'Seller' (with a placeholder 'Enter seller name'), 'Set price' (with a dropdown arrow and a checked checkbox), 'Set no. of items' (with a dropdown arrow and a checked checkbox), and a 'Product description' text area with a placeholder 'Please enter your product description'. Below these are optional fields: 'Set estimate delivery period' and 'Set Timer' (both with dropdown arrows and checked checkboxes). At the bottom are buttons for '5%' (with a dropdown arrow), 'Set discount code' (with a dropdown arrow and a checked checkbox), and a 'Submit' button. A small '#+' icon is located next to the product description text area.

User can turn on the switch icon to switch to the seller mode and this will also navigate them to the product upload page.

Seller needs to fill in the details of a product and add tags using the #+ icon before submit it.

It is optional for seller to create a timer or discount code for the product.

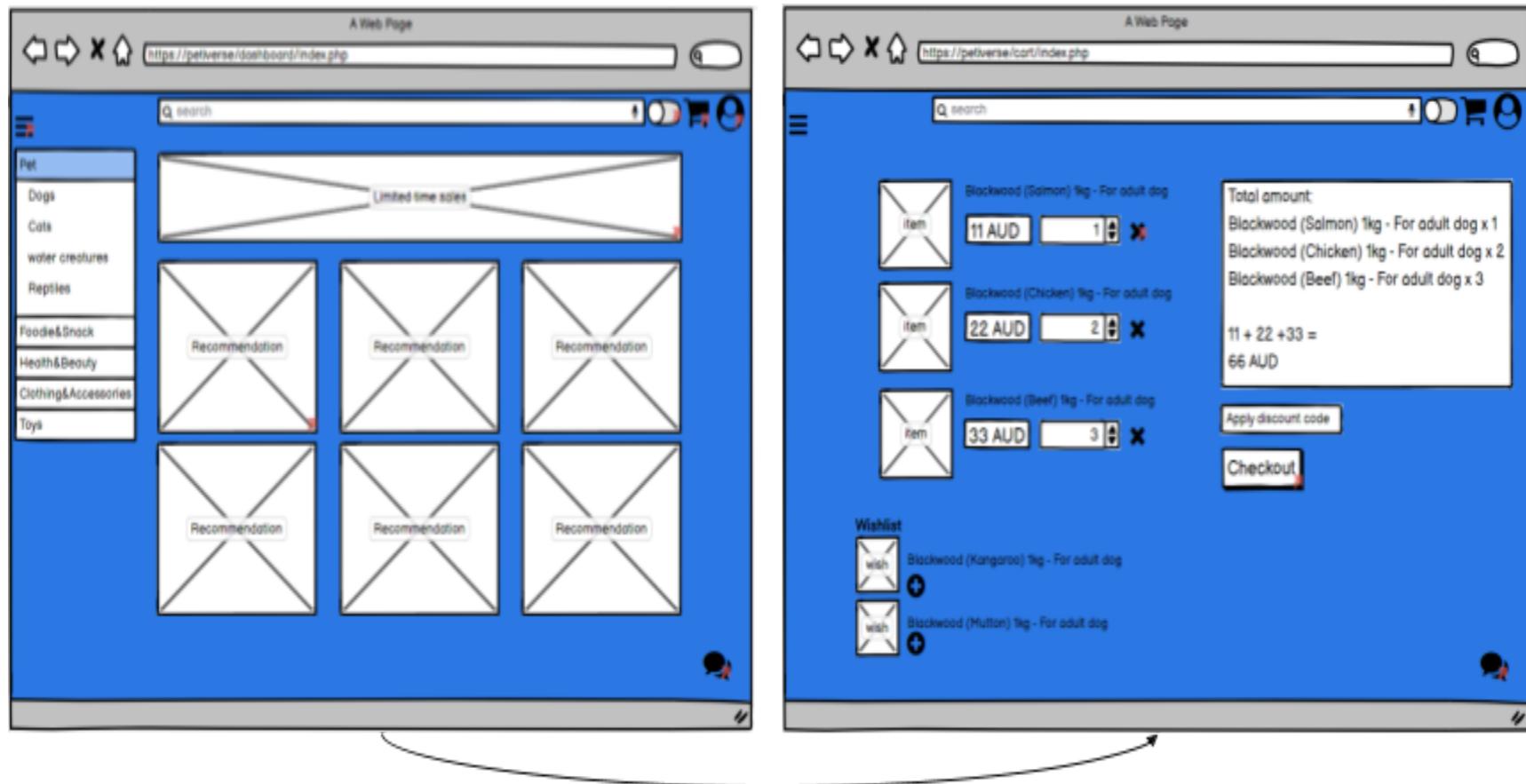
Seller menu and logout

The figure consists of three screenshots of a web application interface for sellers. The top-left screenshot shows the main product listing screen with fields for product name, price, quantity, and description. The top-right screenshot shows the same screen with a 'Logout' button highlighted, and a confirmation dialog box asking 'Are you confirmed to log out?' with 'No' and 'Yes' options. The bottom screenshot shows the same screen again, with the user icon in the top right corner now triggering a dropdown menu bar containing 'Profile', 'View Sales', 'Current selling products', 'Apply for pro seller', 'Contact us', and 'Logout'. Arrows from the text descriptions point to the respective UI elements.

Same as buyer menu, pressing the user icon will trigger the seller menu bar to pop up.

The logout process for seller is same as buyer.

View shopping cart



User can view shopping cart by
pressing the top right corner
shopping cart icon.

Remove/add an item from/into the shopping cart.

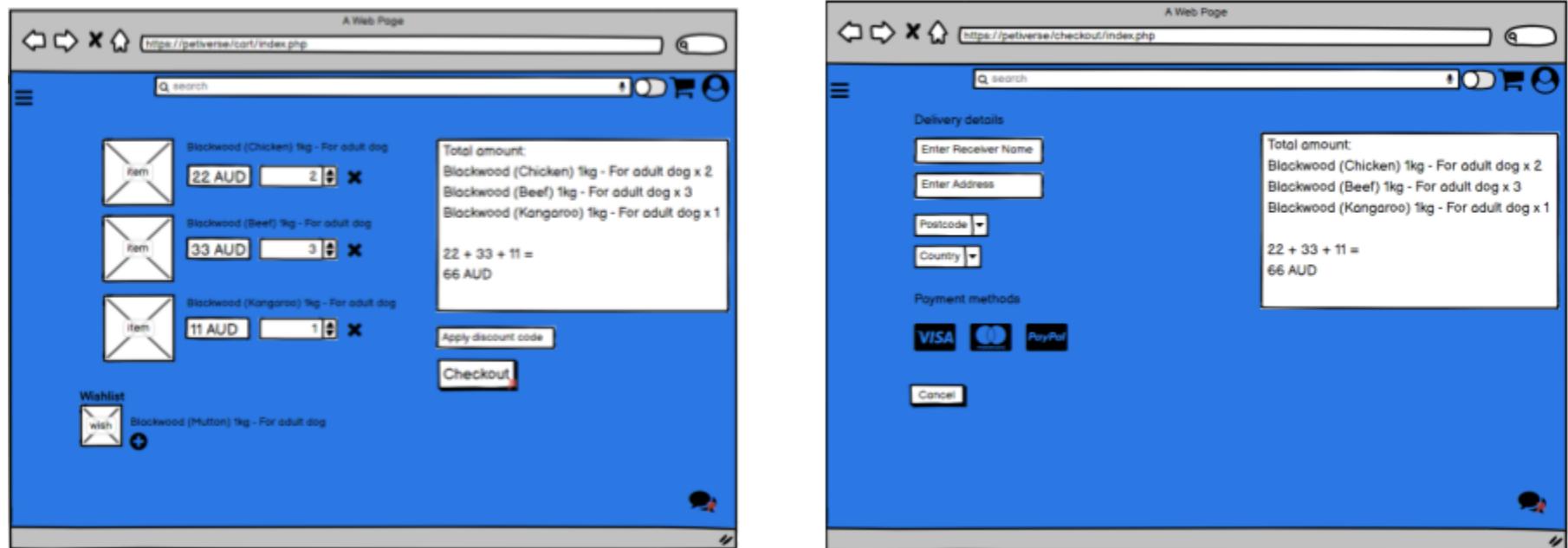
The figure consists of three screenshots of a shopping cart interface, each showing a different state of the cart and wishlist.

- Screenshot 1 (Top Left):** Shows the initial state of the cart. It contains three items: Blackwood (Salmon) 1kg - For adult dog (11 AUD), Blackwood (Chicken) 1kg - For adult dog (22 AUD), and Blackwood (Beef) 1kg - For adult dog (33 AUD). The total amount is 66 AUD. The wishlist section shows two items: Blackwood (Kangaroo) 1kg - For adult dog and Blackwood (Mutton) 1kg - For adult dog.
- Screenshot 2 (Top Right):** Shows the state after removing one item from the cart. The cart now contains Blackwood (Chicken) 1kg - For adult dog (22 AUD), Blackwood (Beef) 1kg - For adult dog (33 AUD), and Blackwood (Kangaroo) 1kg - For adult dog (11 AUD). The total amount is 66 AUD. The wishlist section shows Blackwood (Mutton) 1kg - For adult dog.
- Screenshot 3 (Bottom Center):** Shows the state after adding one item from the wishlist into the cart. The cart now contains Blackwood (Chicken) 1kg - For adult dog (22 AUD), Blackwood (Beef) 1kg - For adult dog (33 AUD), and Blackwood (Kangaroo) 1kg - For adult dog (11 AUD). The total amount is 55 AUD. The wishlist section shows Blackwood (Mutton) 1kg - For adult dog.

User can remove the specific number of items from the cart by pressing the cross icon.

User can add an item from wishlist into the cart by pressing the circle plus icon under the product name.

Checkout



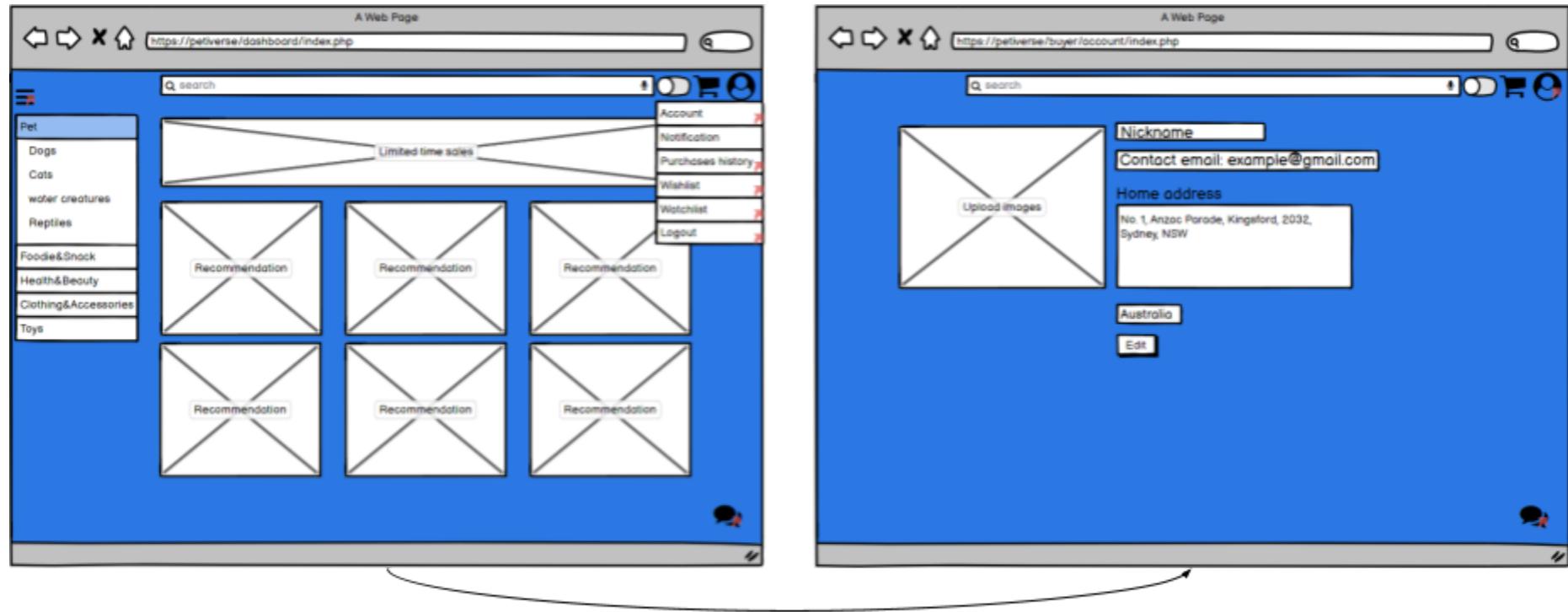
User can apply a valid discount code to obtain offer if there is any.

Checkout button will redirect user to the payment page.

User will need to fill in the delivery form and select payment methods to complete the payment.

Also user cancel the payment process by pressing the cancel button.

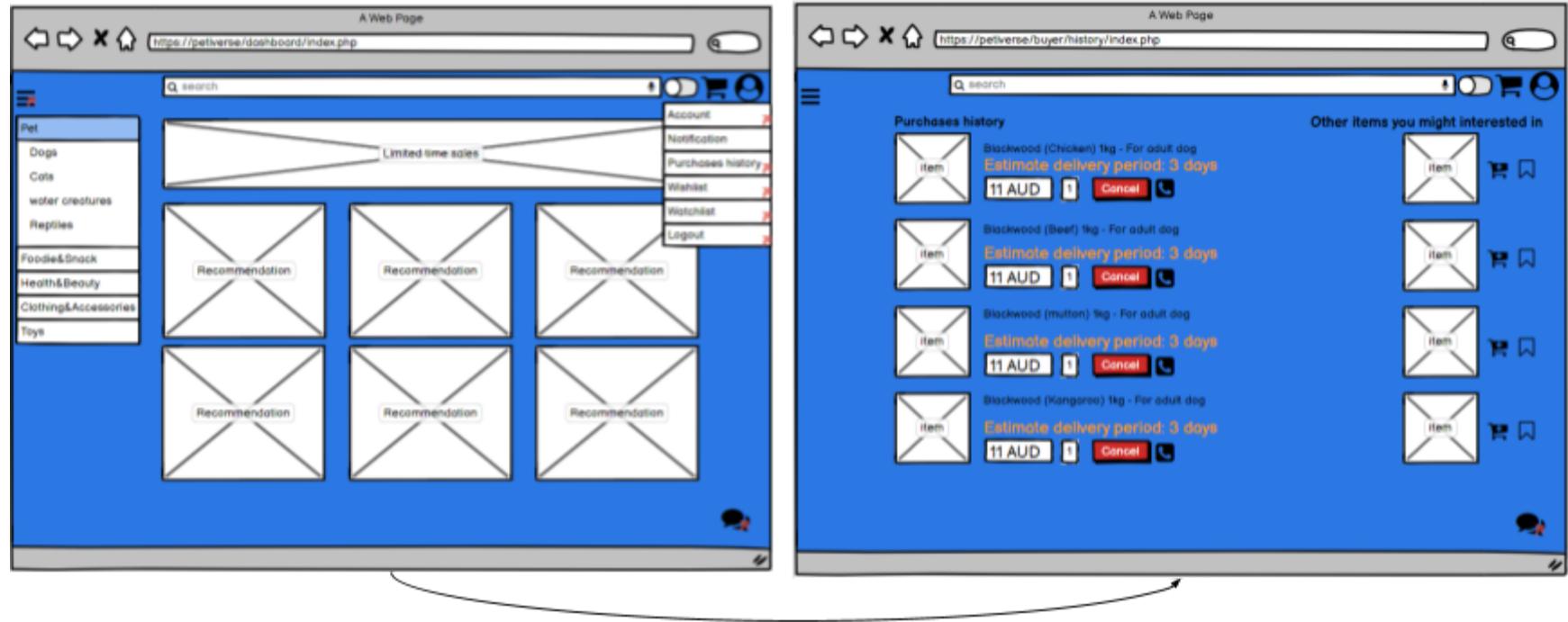
Buyer account



Click the account on the menu bar
to access buyer account page.

Buyer allows to edit the personal
details by clicking edit button

Purchases history (buyer)



Click the purchases history on the menu bar to access the purchases history page.

Buyer can view the purchases' details and cancel the purchased items by clicking the cancel button.

Buyer can view the seller contact details by pressing the phone icon.

Wishlist (buyer)

A Web Page
https://petverse/dashboard/index.php

A Web Page
https://petverse/buyer/wishlist/index.php

Wishlist

Blockwood (Chicken) 1kg - For adult dog
11 AUD 1 +

Blockwood (Beef) 1kg - For adult dog
11 AUD 1 +

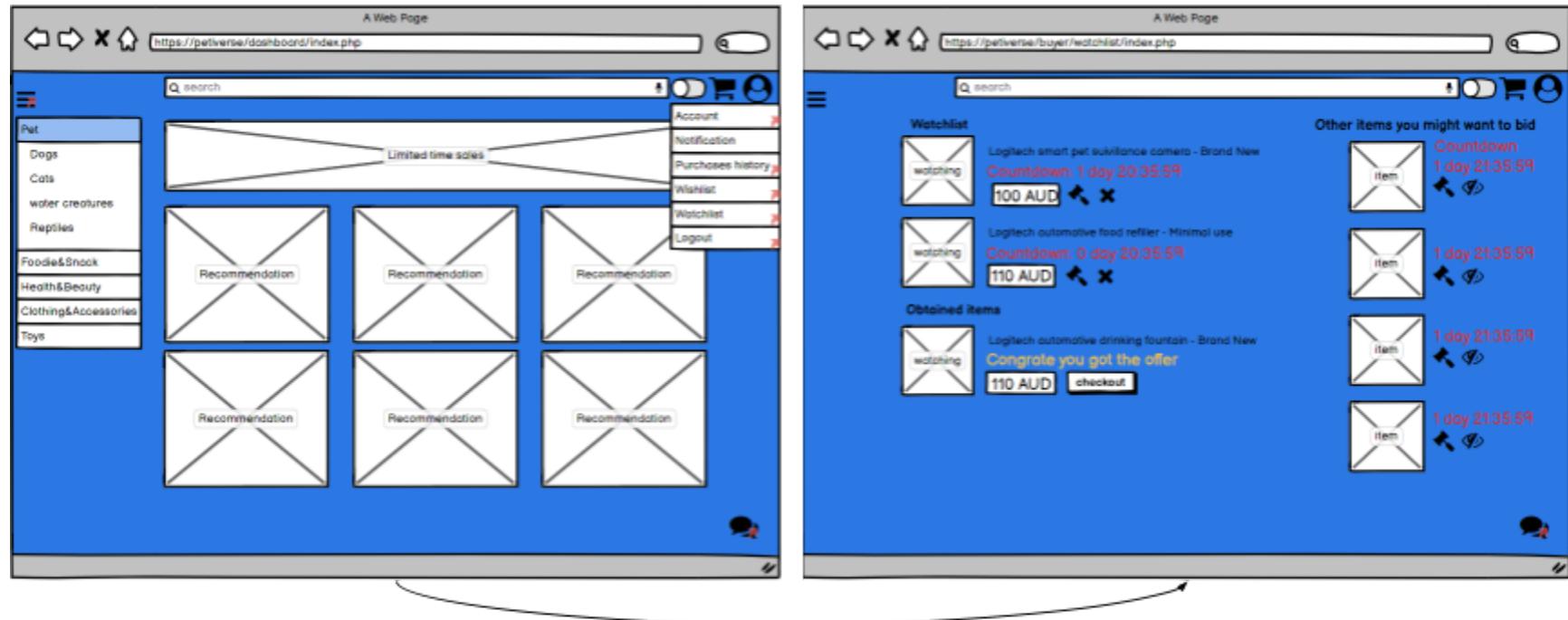
Blockwood (mutton) 1kg - For adult dog
11 AUD 1 +

Blockwood (Kangaroo) 1kg - For adult dog
11 AUD 1 +

Click the wishlist on the menu bar to access the wishlist page.

Buyer can add a watching products into shopping cart by pressing the plus cart icon and cancel an item by clicking the cross button.

Watchlist (buyer)

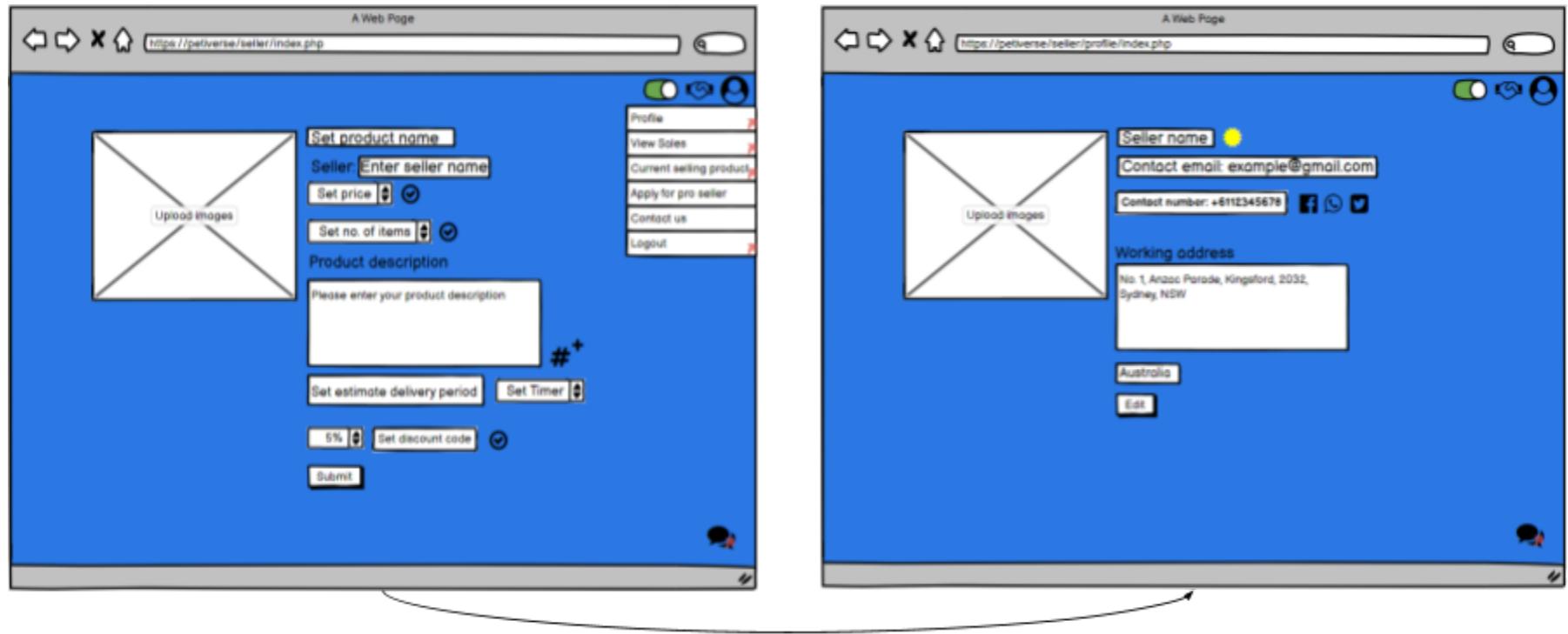


Click the watchlist on the menu bar to access the watchlist page.

Buyer can reset bidding price by filling new price in the bidding box and pressing the gavel icon.

Buyer remove an bidding item by clicking the cross button.
The successfully bid items will be display at the obtained items section and checkout the item by pressing the checkout button.

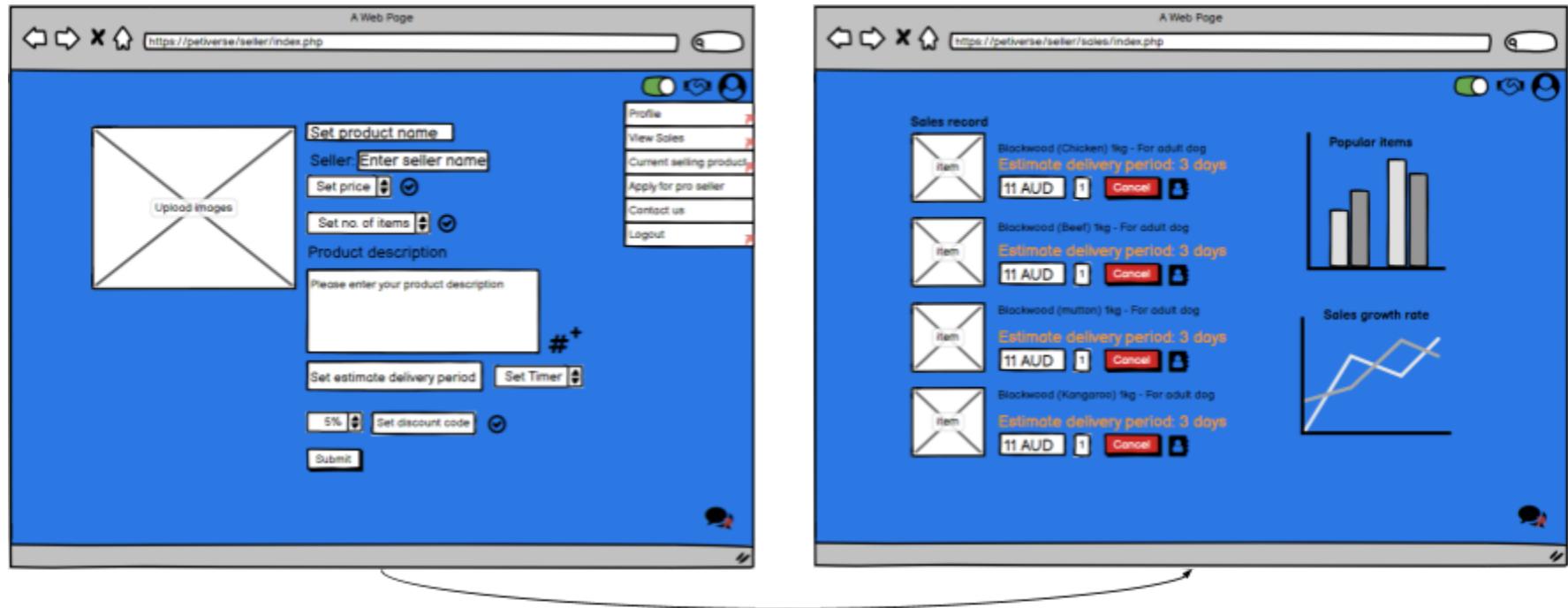
Seller profile



Click the profile on the seller menu bar to navigate to the seller profile page.

Seller can edit profile details by clicking the edit button.

View sales (seller only)



Click the view sales on the seller menu bar to navigate to the seller sales page.

Seller can view sold unit and earning.

Seller can collect back all sold unit for a specific product by pressing the cancel button.

Seller can view lists of buyers for every sold product by pressing the contact book icon.

Current selling product (seller only)

The image consists of two side-by-side screenshots of a web application interface for sellers.

Left Screenshot: This is the 'Current selling product' page. It features a large input field for 'Upload images' with a cross icon. Below it are several input fields: 'Set product name' (with placeholder 'Enter seller name'), 'Set price' (with dropdown options), 'Set no. of items' (with dropdown options), 'Product description' (with placeholder 'Please enter your product description' and a '#+' button), 'Set estimate delivery period' (with dropdown options), 'Set Timer' (with dropdown options), '5%' (with dropdown options), 'Get discount code' (with dropdown options), and a 'Submit' button.

Right Screenshot: This is a list of 'Current selling products'. It shows four items:

- Blackwood (Chicken) 1kg - For adult dog
Estimate delivery period: 3 days
11 AUD [edit](#) [View](#)
- Blackwood (Beef) 1kg - For adult dog
Estimate delivery period: 3 days
11 AUD [edit](#) [View](#)
- Blackwood (Mutton) 1kg - For adult dog
Estimate delivery period: 3 days
11 AUD [edit](#) [View](#)
- Blackwood (Kangaroo) 1kg - For adult dog
Estimate delivery period: 3 days
11 AUD [edit](#) [View](#)

Below this list is a 'Add product' button. To the right, there is a sidebar titled 'Other sellers who also sell the same product' showing two more items:

- Blackwood (Chicken) 1kg - For adult dog
10 AUD
- Blackwood (Beef) 1kg - For adult dog
12 AUD
- Blackwood (Mutton) 1kg - For adult dog
12 AUD
- Blackwood (Kangaroos) 1kg - For adult dog
11 AUD

Click the view current selling product on the seller menu bar to navigate to the selling product page.

Seller can view the set unit price.

Seller can edit a product details by clicking the edit button.

Seller can add a new product by clicking the square plus button that located at add product section.



References

- Dialogflow ES documentation.* (2007). Retrieved from Dialogflow:
<https://cloud.google.com/dialogflow/es/docs/reference/rest/v2-overview>
- Docs for Shopify APIs.* (2021, 03 01). Retrieved from Shopify Developers: <https://shopify.dev/docs>
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