



Team 16 - Product Backlog

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Problem Statement:

Nowadays e-commerce sites have been exploding all over the internet. However, not all of them are created equal. We intend to create a site which provides an excellent client experience regardless of whether they are a merchant or a customer. With recommended products, reviews, and search autocomplete, we aim to build a web application that can compete with top sites like Amazon and eBay.

Background Info:

Audience:

Primarily merchants and customers who would like to sell/purchase products. Merchants will sign up on the website and need to be confirmed by us in order to become validated sellers. Buyers will also sign up on the website as either a normal member or a Prime member, who will have exclusive membership (discounted products). Ordinary people can also browse the website if they don't know what they need.

Similar Platforms:

Amazon is one of the most popular e-commerce site. Visitors have the capability of browsing through products listed for auction/sale. Our website functions in a similar manner and will have exclusive membership, similar to Amazon Prime. Our project differs from Amazon in the sense that we do not have a retail division for our own products, all of the products simply come from third-party merchants. Another platform which we will be competing with is eBay. Congo will serve as a third-party facilitator, similar to the structural operations of eBay. eBay is an "auction house", which serves as a mediator between third-party merchants and customers. Our project differs from eBay in the sense that we will require merchant verification for prospective sellers. This would ensure that we can certify our sellers for future reference and ensure all products are being processed legally.

Limitations:

One way in which we are different from eBay is that we will be requiring merchants to get verified through our system before they will be allowed to add products. This will be a similar process to how Apple verifies it's developers. You provide contact information, an organization, and pay a fee, then we (the site admins) will look over your request. One way that we will be different from Amazon is that we will be adding a social media aspect to our site. Customers will be able to share their purchases and favorite products on Facebook and Twitter with one click, using their APIs.

Functional Requirements:

Unregistered Congo Customer

1. As an unregistered congo customer , I would like to register for a Congo account.
2. As an unregistered congo customer , I would like to browse the products.
3. As an unregistered congo customer , I would like to browse products by category.

Registered Congo Customer

4. As a congo customer member, I would like to have all the abilities that an unregistered congo customer have.
5. As a congo customer member , I would like to login to my account
6. As a congo customer member , I would like to add a product to my shopping cart.
7. As a congo customer member , I would like to remove an item/s in my shopping cart.
8. As a congo customer member , I would like leave reviews on products I have purchased.
9. As a congo customer member , I would like to view my recommended products.
10. As a congo customer member , I would like to purchase products in my cart with stripe api.
11. As a congo customer member , I would like to refund products with stripe api.
12. As a congo customer member , I would like to view my items in my shopping cart.
13. As a congo customer member , I would like to view my purchase history.
14. As a congo customer member , I would like to view how many products are remaining on a product I am viewing.
15. As a congo customer member , I would like to view how many people are viewing this product.
16. As a congo customer member, I would like to purchase a Congo gift card.
17. As a congo customer member , I would like to redeem a Congo gift card.

18. As a congo customer member , I would like to receive email confirmation after a successful order placement.
19. As a congo customer member , I would like to save my payment information.
20. As a congo customer member , I would like to save my shipping information.
21. As a congo customer member , I would like to save my billing information.
22. As a congo customer member , I would like to reset my account password through my email.

Congo Stream Member

23. As a congo customer Stream member, I would like all the same features as a regular member
24. As a congo customer Stream member , I would like to receive expedited shipping
25. As a congo customer Stream member , I would like to receive discounts on select products.

Congo Merchant

26. As a congo merchant, I would like to be verified.
27. As a congo merchant, I would like to add products
28. As a congo merchant, I would like to edit products
29. As a congo merchant, I would like to remove products
30. As a congo merchant, I would like to be able to login in to a merchant page
31. As a congo merchant, I would like an merchant page with my statistics
32. As a congo merchant, I would like to be able to add tags to my products
33. As a congo merchant, I would like to be able to remove tags to my products
34. As a congo merchant, I would like to pay to promote my products

Congo Admin

35. As an congo admin, I would like to approve merchants
36. As an congo admin, I would like to reject merchants
37. As an congo admin, I would like to approve products
38. As an congo admin, I would like to reject products
39. As a congo admin, I would like to be able to login to a site admin page.
40. As an congo admin, I would like to see overall site statistics

Non-Functional Requirements:

Architecture and Performance:

We will be using Firebase as our platform and NodeJS for the backend. It will handle all of the client requests as well as storing products and sensitive user information on its database. We will be using NoSQL in conjunction with Firebase as the platform for the database. For users to have secure payments, we will be using STRIPE API since it deals with refunds as well. Another feature we plan to implement is dynamic searching and autocomplete using AJAX. The site will also be running 24/7 with the worst case average response time being 1.5 seconds. We are also optimizing the user experience by implementing a caching system using REDIS. This is for better performance in real-time when the user wants to see his/her recommended products.

Security:

We will be implementing a few security features in our app. First, we will be hashing our passwords so that no one can retrieve them. When a user inputs a password, we will hash it the same way and compare it to the stored hash. If it matches, then the login is successful. Additionally, we will be storing the currently logged in user in session. We will then store a hash of the email in session, and upon entering every page, compare that user id's email, hashed, to the stored hash. If it is not a match, we will automatically log the user out and redirect them to the appropriate page. In terms of payments, we will be using Stripe API, which handles all forms of security on that end.

Usability:

The interface should be easy to navigate and understand. Given the variety of different e-commerce sites, users should be accustomed to navigating and expecting similar features on our platform as well. We have made sure that all the features that other sites have are implemented in ours as well as a couple of new features that will be highlighted and made apparent to the user. Congo's color palette that we have chosen has a great balance between whites and greys and should allow the user to understand the layout and navigate through all pages of our site more fluidly than others. Similar platforms have an entirely different layout and color scheme for both sellers and buyers, however we want to create a central platform and interface for both the sellers and buyers as it would show consistency with our brand.

Hosting/Deployment:

Since we are hosting an e-commerce site and will be dealing with a lot of data from all of our consumers, we chose to have our backend and frontend hosted from the same service, which allows our product to run seamlessly and easier to operate. We will be using Google's Firebase platform which allows our product to be SSD-backed, so that our product

will be delivered fast and efficient all around the globe, SSL certificates for custom domains, and the will deploy our site from a local directory with one command.