

Database Design

UserInfo (uid, first_name, mid_name, last_name, email, address, password)

UserAcc (uid, balance)

Description and constraints:

- uid describes the unique ID assigned to each user and is the superkey
- emails must be unique

Seller (uid)

Description and constraints:

- a seller must also be a user

Products (product_id, category, name, descrip, img_link, price)

Description and constraints:

- Each product belongs to one category
- product_id is to uniquely identify each product
- Name, description, image, price cannot be null

SellProducts (seller_id, product_id)

Description and constraints:

- primary key is seller_id and product_id combined

Purchases (order_id, seller_id, product_id, date, uid, num_items, fulfillment_status)

Description and constraints:

- Each purchase has a unique order ID
- Dated so it can be sorted chronologically

UserCarts (uid, product_id, quantity)

Description and constraints:

- No entry in the cart can agree on the user, product, and seller, since any repeat would be recorded as higher quantity but not an additional entry in the table
- Each user has one cart
- Each entry in the cart refers to one product from one seller with a specific quantity
- To place an order, the listed items must be available, and the user's balance must be at least the price of the order

Feedback (buyer_id, product_id, rating, review, date)

Description and constraints:

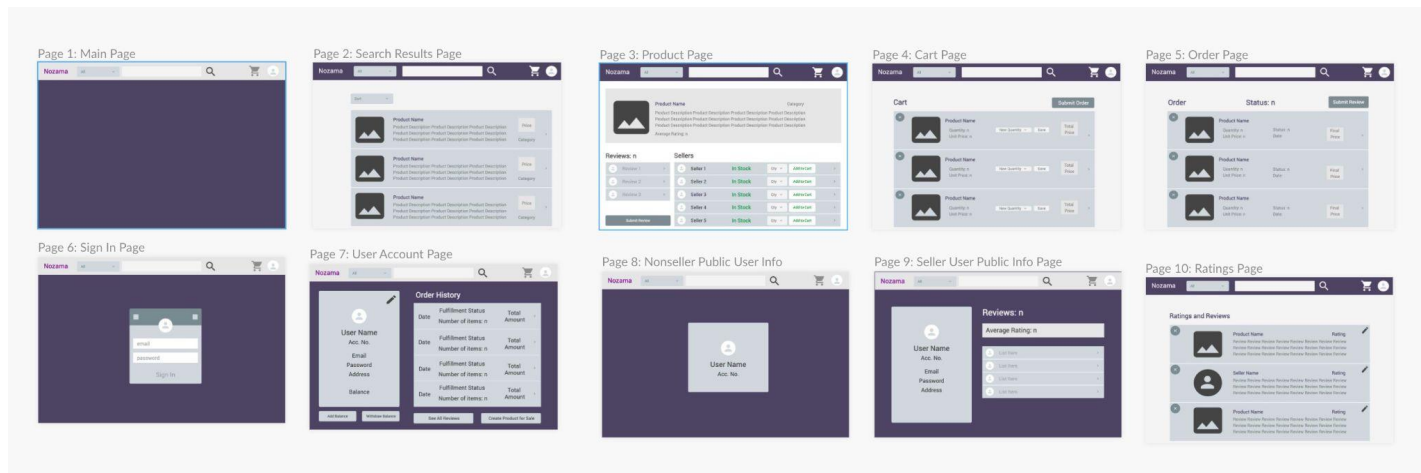
- A review/rating will be uniquely identified by the user and product it is about
- A user cannot submit multiple ratings/reviews for the same product

SellerReviews (uid, review_id, review)

Description and constraints:

- A review/rating will be uniquely identified by the review_id and uid where review_id is the seller being reviewed
- A user can only submit a single rating/review for a seller, provided that the user has ordered something from the seller

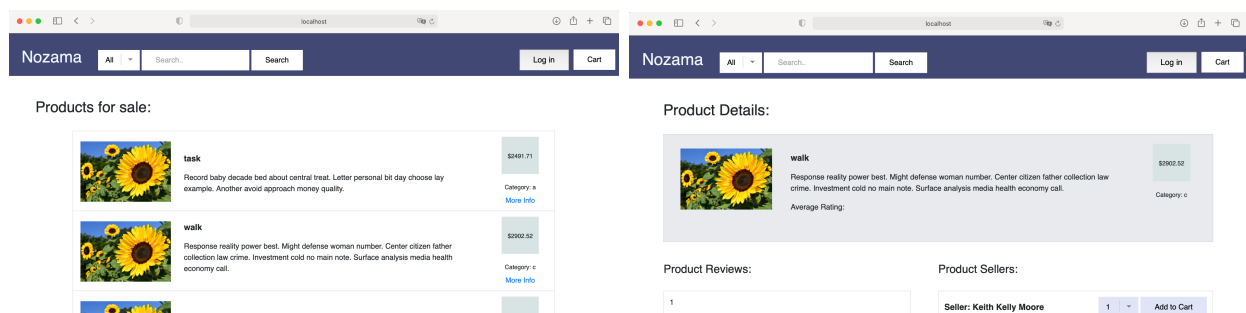
Original Mock up and Flow



1. Main Page
 - a. Acts as the homepage for our online retail website. Should include user-catered products and recommendations based on recently watched/purchased that lead directly into product pages (page 3). Also features a search bar which leads into page 2, a cart button that leads into page 4, and user button that leads into page 6 or page 7, depending on if the user is already signed in or not. All pages lead directly back to this page when the user clicks on the logo in the top left corner
2. Search Results Page
 - a. Shows products based on search query. Can be accessed from any other page when using the search bar on the top. Leads directly into page 3 when clicking on a product. Also leads into pages 1, 4, and 6/7 from the navigation bar on top.
3. Product Page

- a. Shows description, price, and images of product. Leads into page 9 for information and other listings by seller and page 10 for ratings on given product. Also leads into pages 1, 2, 4, and 6/7 from the navigation bar on top
4. Cart Page
 - a. Lists all products that have been added to the cart by the user. Can adjust product quantity and remove any items from cart. Accessible from all pages via the navigation bar. Leads directly into page 5 to order the items in the cart. Also leads into pages 1, 2, and 6/7 from the navigation bar on top.
5. Order Page
 - a. Lists all items that are currently in the cart. User inputs delivery address, payment info, and chooses shipping option. Also acts as a confirmation page for items from cart. User must already be logged in at this point. Accessible from page 4. Also leads into pages 1, 2, 4, and 7 from the navigation bar on top
6. Sign In Page
 - a. Allows user to log in to their account/sign up for an account if they don't already have one. Accessible from any other page if not already logged in and the account button in navigation bar is chosen. Leads back into page that the user was previously on. Also leads into pages 1, 2, and 4 from the navigation bar on top
7. User Account Page
 - a. Shows view history, purchase history, addresses, stored payment info. Accessible from any other page through navigation bar if already logged in. Also leads into pages 1, 2, and 4 from the navigation bar on top
8. Nonseller Public User Info
 - a. Shows name and basic contact info for non-sellers. Also lists the ratings/reviews that the users have previously left behind. Accessible from page 10 where the nonseller has left a review behind. Also leads into pages 1, 2, 4, and 6/7 from the navigation bar on top
9. Seller User Public Info Page
 - a. Gives average rating for the seller as well as a list of all products sold by the seller. Also gives contact information for users. Accessible from corresponding page 3 where product is sold by the seller and leads into all page 3s that are sold by the seller. Also leads into pages 1, 2, 4, and 6/7 from the navigation bar on top.
10. Ratings Page
 - a. Shows all the reviews and ratings for a particular item. Accessible from page 3 and leads back into page 3. Also leads into page 8 for users that leave ratings/reviews. Also leads into pages 1, 2, 4, and 6/7 from the navigation bar on top

Current Website Design



Login

Email

Password

Login

Register

User Account Page

Name: Joshua Michael Snyder
Email: pamelaanderson@example.org
Address: 0519 Sarah Wells Apt. 314 Debraside, WY 98059
Balance: \$1036.77
Account Id: 7

Your recent purchases:

Order ID	Account ID	Seller ID	Product ID	Time Ordered	Quantity	Fulfillment Status
18	7	9	0	2021-11-07 03:26:37 PM	16	Delivered
8	7	5	5	2021-11-03 06:13:27 AM	3	Shipped

Public View

Add Balance

Withdraw Balance

Non-Seller User Public Info

Joshua Michael Snyder
pamelaanderson@example.org
Account Id: 7

New User Account Page

Name: April Anthony Cole
Email: suewilson@example.com
Address: 969 Eddie Overpass Suite 675 West Anthonyshire, AZ 36209
Balance: \$2793.78
Account Id: 8

Your recent purchases:

Order ID	Account ID	Seller ID	Product ID	Time Ordered	Quantity	Fulfillment Status

Public View

Add Balance

Withdraw Balance

Nozama

All

Search...

Search

Log in

Cart

Derek Julia Hood

Reviews

:heryljohson@example.net

Average Rating:

Jnit 3539 Box 2597 DPO AA 77979

Nozama

All

Search...


Search

Log in

Cart

Cart

Checkout



simple

Risk place herself world turn push. Hair might main example significant office. Response small eye sit. Everybody too skill eight. Voice lay maintain professor near. Major heavy house where home.

Quantity: 6

\$1249.23

Category: f

Nozama

All

Search...

Search

Log in

Cart

Shipping Information

First Name

Last Name

Address Line 1

Address Line 2

Zip Code

State

Country


Payment Information

Card Number

CVV

Month

Year



simple

\$1249.23

Category: f

Quantity: 6

Shipping Options

Promo Code

Subtotal: \$7495.38

Shipping and Handling:

Total: \$7495.38

Submit Order

Implemented:

1. Can click on Nozama button to return to home page.
2. Search bar with Search by category feature
3. Redesign home page to display information on each product.

4. Implemented a product details page with more details on products, a section for product reviews (unfinished), and a section to show all the sellers of the product along with buttons to add some items from a seller to the cart (backend incomplete)
5. Implemented redirect from Login button to the User Account page, which shows user's info, balance, and sorted purchase history
6. Implemented redirect from Register button to the New User Account page, which shows user info and no purchase history
7. Implemented page that displayed non-seller users' public info/view
8. Implemented cart page that displays item(s)
9. Implemented checkout page with input boxes for shipping/payment info.

To dos:

1. Change search feature to substring matching rather than exact match
2. Check that generated image urls are valid and pull those image urls from the database to display on the page.
3. Implement unfinished parts of product details page.
4. Allow users to click on seller names to go to seller public info page.
5. Potentially have a sorting results feature
6. Debug and implement login/authentication feature and flesh out registering a new user
7. Have checkout page reflect proper totals/subtotals
8. Have cart and checkout reflect for the individual user's cart