Refined Database Design

Changes from the last milestone have been highlighted.

User(<u>UID</u>, Email, Password, FirstName, LastName, Email, ==*Street1*==, ==*Street2*==, ==*City*==, ==*State*==, ==*Zip*==)

- Address was split into its components (street, city, state, zip)
- Balance was removed from this table and made into a view instead

==*Funding(<u>UID</u>, <u>transactionDT</u>, amount)*==

- Can be positive or negative add/remove funds from account as long as the overall balance does not go negative

Seller(<u>SellerID</u>)

Products(<u>ProductID</u>, Name, Description, Category, unitPrice, Inventory, SellerID, image)

Purchases(<u>UID</u>, <u>ProductID</u>, <u>SellerID</u>, <u>OrderDateTime</u>, finalUnitPrice, Quantity, FulfillmentStatus, FulfillmentDateTime)
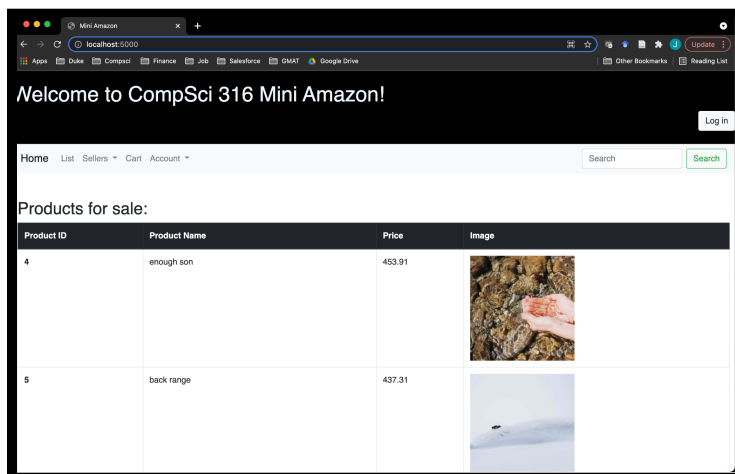
Cart(<u>UID</u>, <u>ProductID</u>, <u>SellerID</u>, Quantity)

ProductReview(<u>UID</u>, <u>ProductID</u>, Rating, ==*numDownVotes*==, ==*numUpVotes*==, Review, DateTime)

SellerReview(<u>UID</u>, <u>SellerID</u>, Rating, ==*numDownVotes*==, ==*numUpVotes*==, Review, DateTime)

- Added ability for users to downvote and upvote both types of reviews

Updated Design for Website

Home page for logged out user has featured products, and option in the top right corner to log in

Login page prompts user to enter email and password; they can click 'login' if they have already registered or 'register' if they do not yet have an account. 'login' will display an error message if the user enters an email that does not exist in the database (i.e. has not been registered) or if the password is incorrect for the corresponding email address

Clicking on the 'Account Details' section underneath the 'Account' tab shows the user's registration info, and gives them the option to update their information and their password

Clicking on 'update information' prompts the user to fill out this form and they can either submit or cancel that

Clicking on 'Update Password' prompts user to enter their old password (for identity verification purposes) and then enter & confirm their new password before updating

The 'Cart' tab displays the items currently in the user's cart. User has the option to update the quantity of an item, remove the item from their cart, view the unit price of an item, view price multiplied by desired quantity of an item, and view the subtotal of their order. Further development will redirect the user to an order confirmation (or order failed if funds are insufficient) page.

Filling out each of the fields and pressing 'Create' creates a new listing in the products table. This product will then be displayed in the user's inventory page and the product list on the home page.

Inventory page shows all of the products the logged in seller has listed with their product id, name, and inventory. There is an update button for the user to update their inventory and the remove button allows the user to remove a product from inventory

Orders shows the seller the history of orders in which people have bought from them, showing the buyer ID and address, the date the order was placed, the total amount spent in the order, the number of items in the order, fulfillment status and the date the order was fulfilled.

To register as a new user a person can fill out each field given and press register. The user will be added to the Users table and can then login.

List of Features Implemented

Account/ Purchases

Basic
- Functioning user login with the database existing users
- Register a user with a new account (enforces email is unique)
- Allow user to update their information (except user id)
- Allow user to see and update their balance (need to add constraints still)

Products

Basic
- Showed a summary (id, name, price, image) for each product in the result list
- Users can create new products for sale

Cart/ Order

Basic
- Cart displays product, product id, quantity, unit price, and price for the user's quantity
- Buttons to remove from cart & checkout
- Button to increase/decrease quantity of an item
- Displays product image
- Displays order subtotal
- Cart contents are persistent

Advanced
- Redirects user to login page if they click on the "cart" tab when they are not logged in
- Cleaned up UI with CSS
  - buttons change colors if you hover over them
  - table layout is more aesthetically pleasing & shows product images

Inventory/ Order Fulfillment

Basic
- People can list items to sell
- Products are given a generated unique product ID when listed
- When a user lists an item they are added to the sellers table
- Orders sold by current user are displayed under the Orders tab
- Order are sorted in reverse chronological order
- Newly added products are persistent in both inventory and the products for sale (home) page
- Buttons to update number of products in stock and remove from inventory

Advanced

- Redirects user to login page if they are not logged in click on the create, orders, or inventory tabs
- Returns 'Congratulations, you listed a product!' (need to change location this flashes)

Feedback/ Messaging

Basic
- User cannot submit multiple reviews for the same product
- User cannot submit multiple reviews for the same seller
- User can only submit a review for products they have purchased
- User can only submit a review for sellers from which they have purchased

Advanced
- Only a user can start a private message thread
- User can only message sellers from which they have made purchases from
- Upvote value stored in the schema

List of Features Planned

Users/ Purchases

Basic
- Add more error handling for forms related to user guru
- Add constraints to balances being increased and decremented
- Allow users to update their passwords (form is there needs functionality)
- Users can browse their history of purchases, sorted in reverse chronological order by default. For each purchase, show a summary and link to the detailed order page
- Provide a public view for a user. Also for sellers. And if user is seller show more info and their review from previous buyers

Advanced
- Will allow search/filter purchase history by item, by seller, by date etc.
- Will visualize history of balances, spending amounts and purchases by category, etc.

Cart/ Order

Basic
- Need to add backend to call delete on row where user clicks to remove item from cart
- Need to make checkout page with order summary
    - Checkout on this page needs to check for sufficient user balance and then call DELETE on Cart table plus INSERT on Purchases table for each item in order
    - Will also subtract amount from user funds and add corresponding amounts to the product's respective seller

Advanced
- Need coupon code functionality

- Need 'save for later' option

Product

Basic
- Will implement a detailed product page
- Will let user browse and filter and sort products
- Will group products into categories
- Need 'Add to Cart' button/functionality on each product listing

Advanced
- More enhancements to sorting

Feedback/ Messaging

Basic
- Front-end implementation of being able to leave reviews
- Incorporate leaving a review on the detailed product page
- User can edit any existing reviews for sellers and products
- Incorporate leaving a seller review on the detailed order page and the public view of the seller
- List all reviews authored by user (sorted in reverse chronological order)-- Link to this interface in user account view
- Summary ratings for products and sellers

Advanced
- Private interface for messaging
- Links to message threads will be shown in buyers' and sellers' views of orders
- Implement upvote functionality and sort reviews based on numbers of votes
- Possibly allow users to submit images along with reviews

Inventory/ Order Fulfillment

Basic
- Make remove button functional to remove from inventory
- Make update button functional to update inventory for product
- Allow seller to update fulfillment status

Advanced
- Update UI and change color
- Show analytics for orders