

SW Engineering CSC648-848-01

Summer 2023

Project Title: Jewelry Shopping Site: ArtisanAura

Team 05

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Milestone - Version	Date Submitted
M3V1	07/25/2023

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1. Data Definitions

- User
 - General user: Do not require logging in.
 - General users are able to view, search, purchase, and customize products.
 - Attributes: ID
 - Approved user: Require logging in.
 - Approved users inherit privileges from general users, with the addition of many more features offered by our application.
 - Attributes:
 - ID
 - Account
- Account: Every approved user has an account that contains user information.
 - Customer account
 - Customer accounts have access to saved product customizations and past orders.
 - Attributes:
 - User ID
 - Name
 - Email
 - Password
 - Admin account
 - Admin accounts have access to privileges like creating and removing product pages and reviewing customer orders.
 - Attributes:
 - User ID
 - Name
 - Email
 - Password
- Product
 - Ready-made product
 - Ready-made products are products that do not offer any options for changing the way the product appears with the exception of size adjustments.
 - Attributes:

- ID
 - Name
 - Type: refers to type of jewelry such as ring, bracelet, etc.
 - Material
 - Gemstone
 - Description
 - Price
 - Images
 - Images will only be in PNG format with a maximum size of 3MB each
 - Size
 - Created_at
- Customized product
 - Customized products are products that have options for the general user to change the way the product appears.
 - Attributes:
 - ID
 - Type
 - Design
 - Material
 - Gemstone
 - Packaging
 - Size
 - Created_at
- Cart
 - Cart is similar to a shopping cart where the user will be able to add one or more products for purchase.
 - Attributes:
 - ID
 - User ID
 - Product ID
- Order
 - Order is referring to the user information and list of products within a single transaction. It is used to keep track of what products are purchased and by who.
 - Attributes:
 - ID

- Cart ID
 - Created_at
- Review
 - Reviews are posts created by users who have purchased a product and would like to share their opinions about that specific product.
 - Attributes:
 - ID
 - Product ID
 - User ID
 - Description
 - Rating
 - Created_at
- Payment
 - Payment is the card information used to purchase an item. This will be associated to only one user.
 - Attributes:
 - ID
 - User ID
 - Name
 - Billing address
 - Card number
 - Expiration date
 - Security code

2. Functional Requirements

Priority 1:

1. User

1.1. General user: Does not need to login/register.

- 1.1.1. (1) A general user shall be able to have unrestricted access to the website and view product details from many devices.
- 1.1.2. (1) A general user shall be able to purchase many products by adding them into their shopping cart and completing the checkout process.
- 1.1.3. (1) A general user shall choose at most one type of jewelry per product customized.
- 1.1.4. (1) A general user shall have the option to register one and only one account by providing account registration details through the account creation form.
- 1.1.5. (1) A general user shall be able to add many items into their shopping cart for purchase at a later date while being able to continue shopping.
- 1.1.6. (1) A general user shall be able to make changes to the items added to the shopping cart.
- 1.1.7. (1) A general user shall be able to track the status of their placed orders using an order ID provided through their order confirmation page or email.
- 1.1.8. (1) A general user shall be able to search for specific products by entering relevant keywords or product names into the search bar.
- 1.1.9. (1) A general user shall be able to filter products by applying many filters to narrow the displayed products based on their preference.

- 1.1.10. (1) A general user shall choose at most one design per product customized.
- 1.1.11. (1) A general user shall choose at most one metal per product customized.
- 1.1.12. (1) A general user shall choose at most one gem stone per product customized.
- 1.1.13. (1) A general user shall choose at most one size per product customized.
- 1.1.14. (1) A general user shall choose at most one engraving per product customized.
- 1.1.15. (1) A general user shall choose at most one packaging per product customized.
- 1.1.16. (1) A general user shall choose to make a customized product or purchase a normal product.
- 1.2. Approved user: Needs to login/register.
 - 1.2.1. (1) An approved user shall be able to log into the system which will grant access to save customizations and retrieve these customizations.
 - 1.2.2. (1) An approved user shall be able to edit customizations that have been previously saved.
 - 1.2.3. (1) An approved user shall be able to view current/past orders through the system displaying order history along with relevant information such as dates, items and price.
 - 1.2.4. (1) An approved user shall be able to delete the account after confirming deletion through a prompt, allowing removal of their profile and data from the system.
 - 1.2.5. (1) An approved user shall be able to manage shipping address(es) by editing, adding or deleting shipping addresses.

- 1.2.6. (1)An approved user shall be able to manage their payment methods by editing, adding and deleting payment options from their account.
 - 1.2.7. (1)An approved user shall be able to log into the system using their approved credentials that will verify user identity.
 - 1.2.8. (1)An approved user shall be able to log out from the system, which removes their current session from their account data.
2. Employee: Needs to login
- 2.1. (1)An Employee shall be able to make changes to product details by modifying product descriptions, price and images.
 - 2.2. (1)An Employee shall be able to create and post many new products into the system.
 - 2.3. (1)An Employee shall be able to remove many products from the system allowing data of the product to be removed.
 - 2.4. (1)An Employee shall have access to store transactions that include user information and order details.
 - 2.5. (1)An Employee shall be able to manage product inventory allowing adjustment of stock levels.
3. Account:
- 3.1. (1)An account shall be owned by one and only one user per email provided during creation of account.
4. Products
- 4.1. (1)The system shall be able to display many products.
 - 4.2. (1)A product shall have a quantity selection in respect to the amount of product available in the database.
 - 4.3. (1)A product shall have a unique identifier to accurately track the product's information.

- 4.4. (1)A product shall have only one main image to be displayed on the catalog page.
- 4.5. (1)A product shall have at least one price.
- 4.6. (1)A product shall have zero or many stock availability.
- 4.7. (1)A product shall be ordered by many users.
- 4.8. (1)A product shall be able to be added to one and only one cart.
- 4.9. (1)A product shall be ordered many times.
- 4.10. (1)A product shall be reviewed many times.
- 5. Shopping cart
 - 5.1. (1) A cart shall be associated to at most one general user.
 - 5.2. (1) A cart shall be able to contain many products.
 - 5.3. (1) A cart shall calculate the sum of at most one price per product placed in the cart.
- 6. Order
 - 6.1. (1) An order shall be associated to at most one general user.
 - 6.2. (1) An order shall have at most one unique order number.
 - 6.3. (1) An order shall contain at least one product.
 - 6.4. (1) An order shall have at most one total price.
 - 6.5. (1) An order shall include at most one shipping information.
 - 6.6. (1) An order shall include at most one billing information
- 7. Review/Rating
 - 7.1. (1) A review shall have one title.
 - 7.2. (1) A review shall have at most one description.
 - 7.3. (1) A review shall be associated to at most one product.
 - 7.4. (1) A review shall be associated with at most one approved user.
 - 7.5. (1) A review shall have at most one rating.

Priority 2:

1. User
 - 1.1. General user: Does not need to login/register.
 - 1.1.1. (2) A general user shall have a tracking id provided once their order has been completed which allows them to check the shipment status with the postal service.
 - 1.2. Approved user: Needs to login/register.
 - 1.2.1. (2) An approved user shall be able to provide feedback for products purchased by them through a star rating and text based reply.
2. Employee: Needs to login
 - 2.1. (2) An Employee shall be able to track sales on each product in the system.
3. Account
4. Products
 - 4.1. (2) A product shall have one or multiple images associated with it.
 - 4.2. (2) A product shall have one and only one description.
 - 4.3. (2) A product shall be able to be compared with at most one product.
5. Shopping cart
 - 5.1. (2) A cart shall be able to be saved for later by at most one approved user.
6. Order
 - 6.1. (2) An order shall have at most one order status.
 - 6.2. (2) An order shall be able to be returned at most once.
 - 6.3. (2) An order shall be able to be canceled at most once.

Priority 3:

6. Order

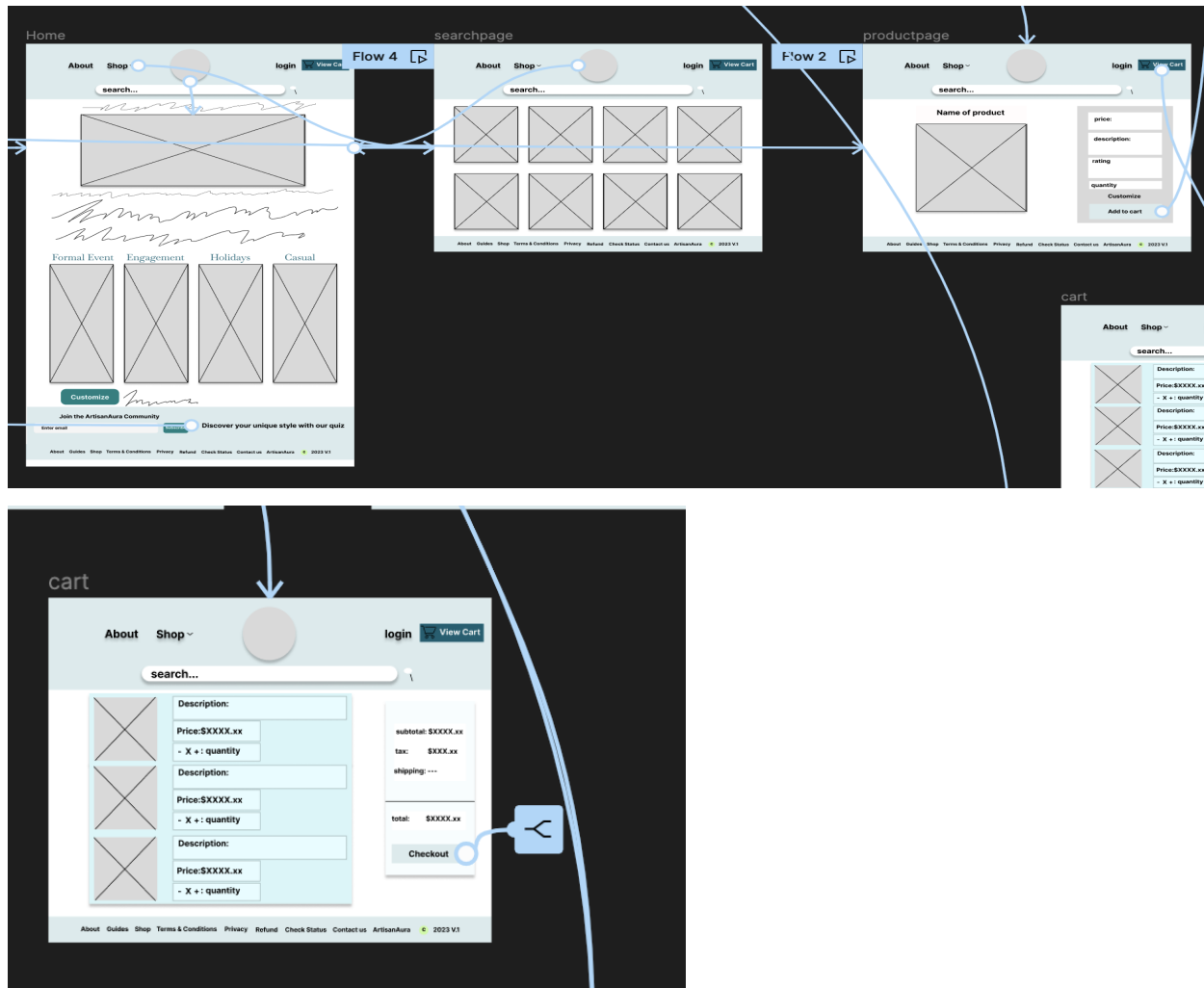
6.1. (3) An order shall include at most one shipment tracking details.

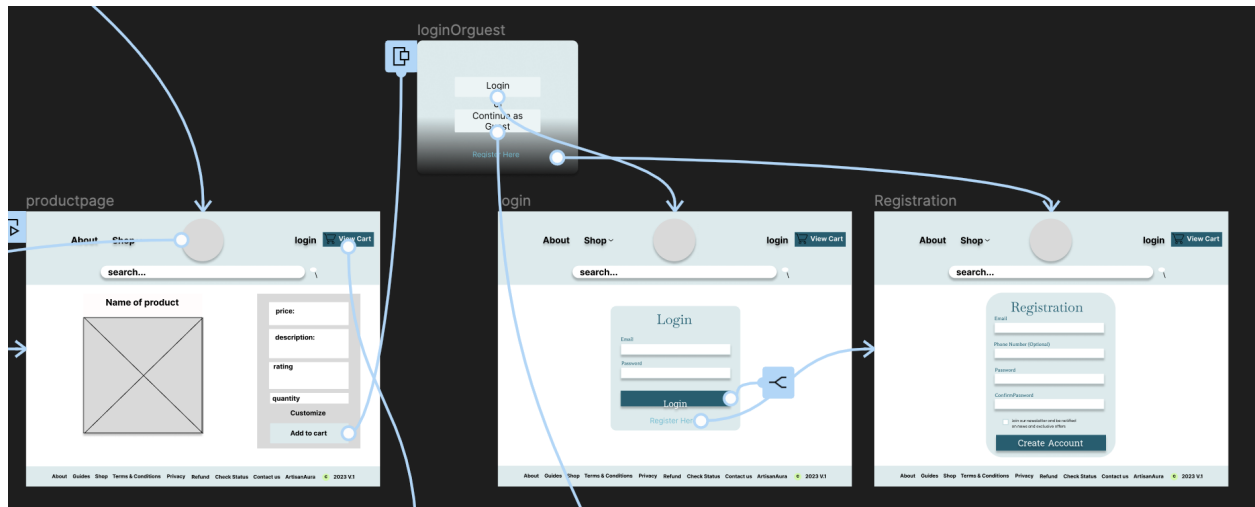
7. Payment

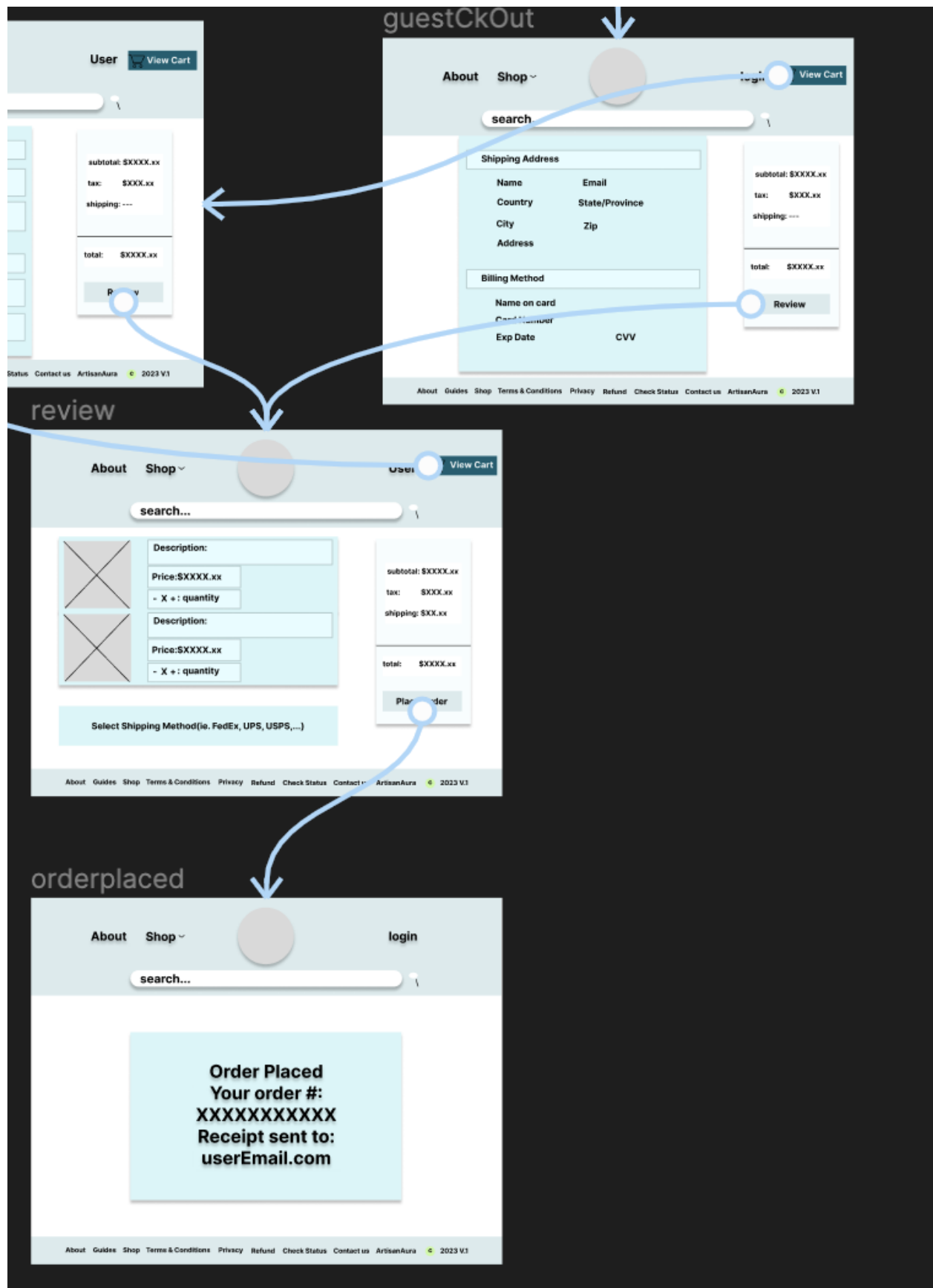
7.1. (3) A default payment method shall be associated to at most one approved user.

3. Wireframes Based on Mockups/Storyboards

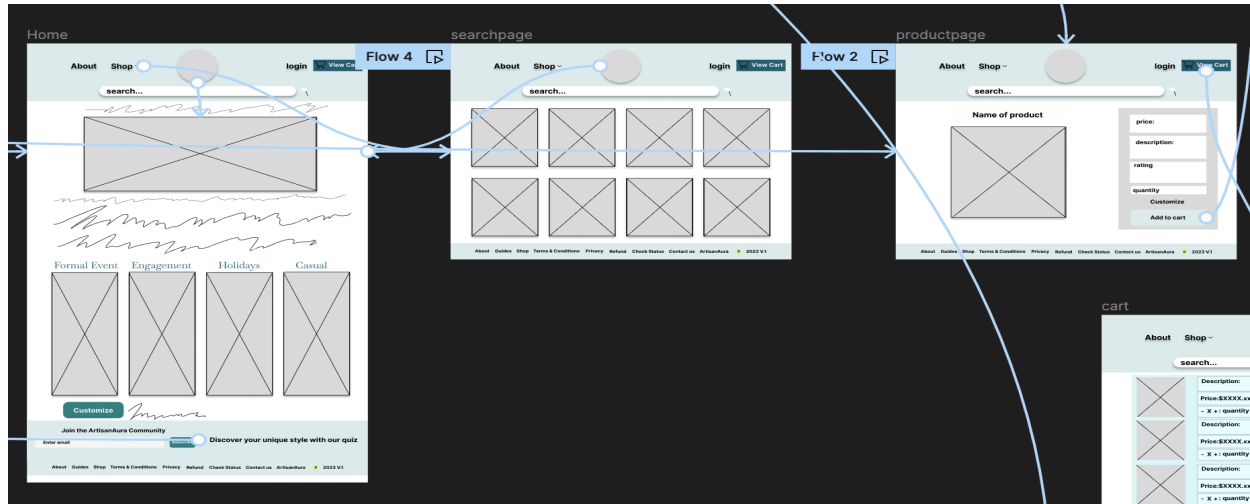
Guest purchase

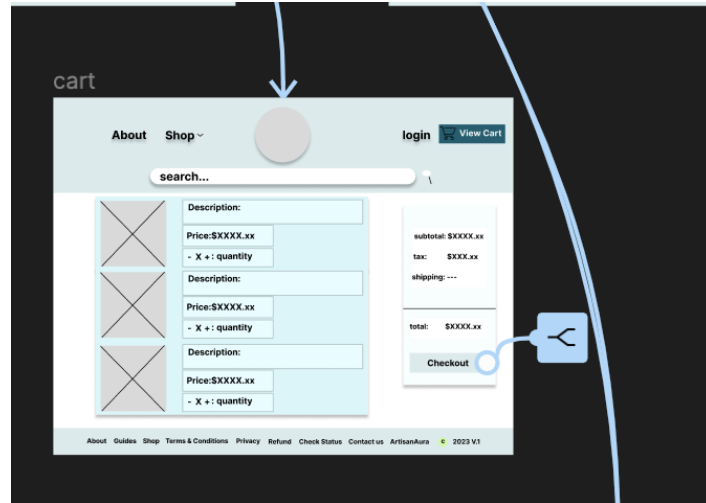


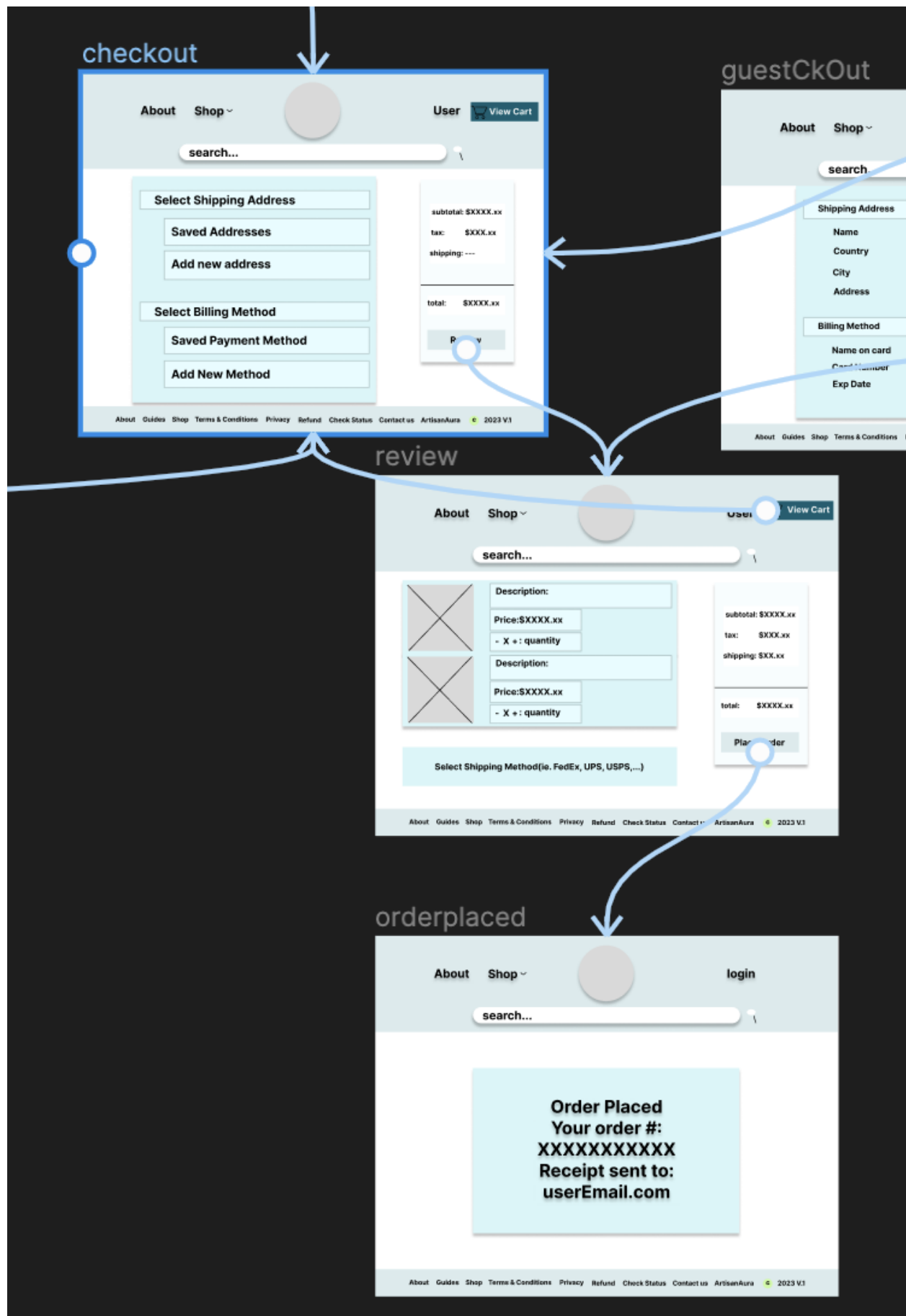




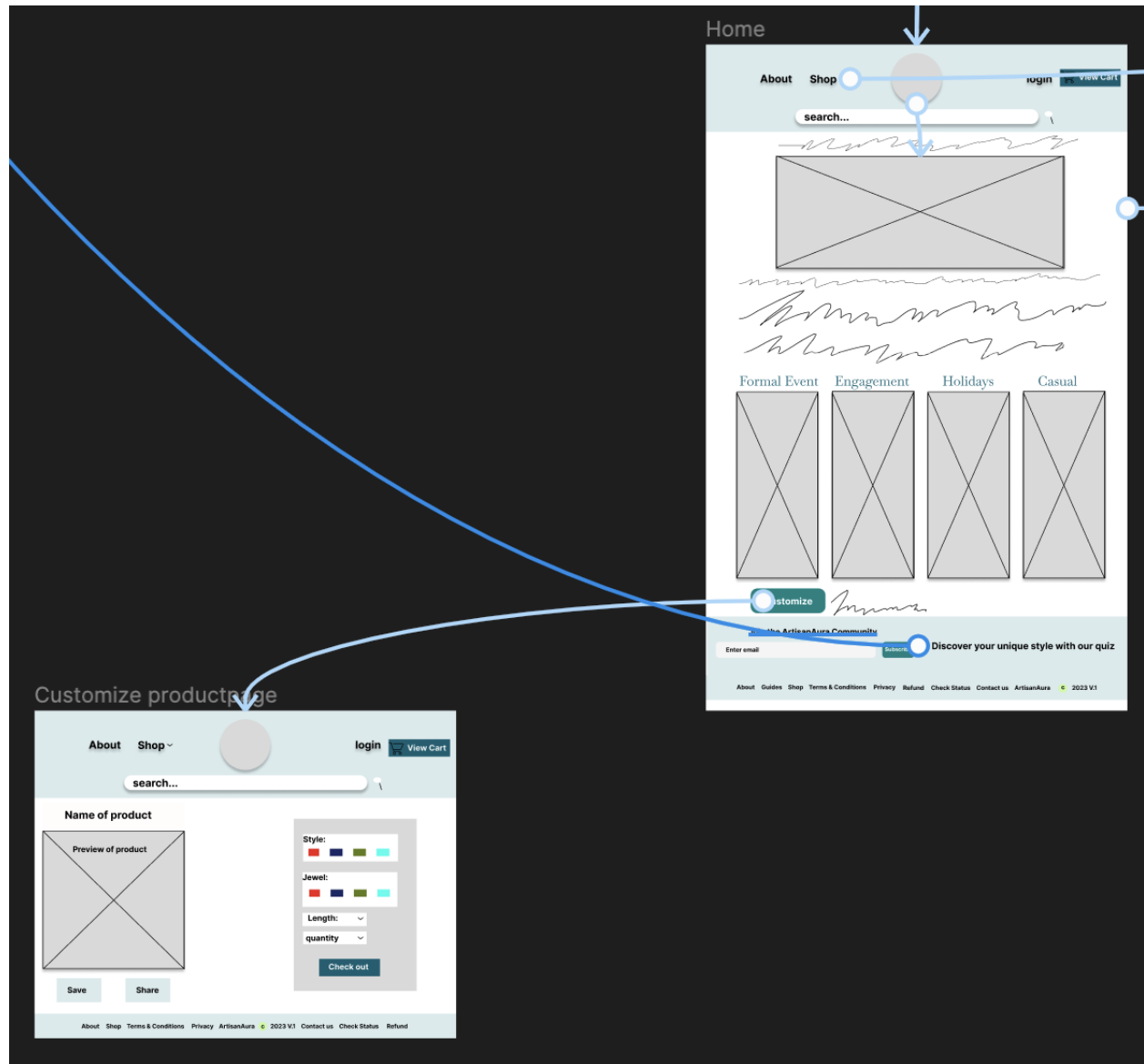
Account Checkout








Customize necklace/jewelry



Customize productpage

[About](#) [Shop](#) 

[login](#) [View Cart](#)

search...

Name of product

Preview of product

Save

Share

Style:

Jewel:


Length:

quantity

Check out

67 × 36 [Shop](#) [Terms & Conditions](#) [Privacy](#) [ArtisanAura](#) © 2023 V.1 [Contact us](#) [Check Status](#) [Refund](#)

Save and share design

[About](#) [Shop](#) 

[login](#) [View Cart](#)

search...

Account details
Order History
Customizations:

Saved Designs

Saved of product

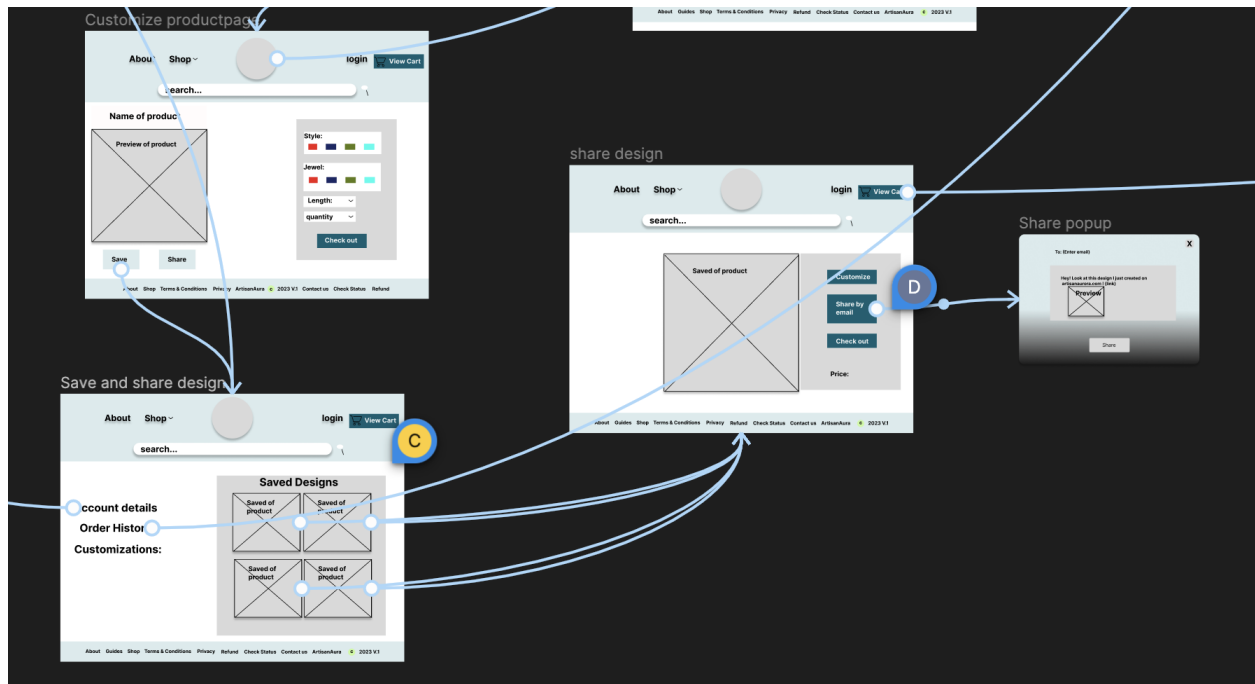
Saved of product

Saved of product

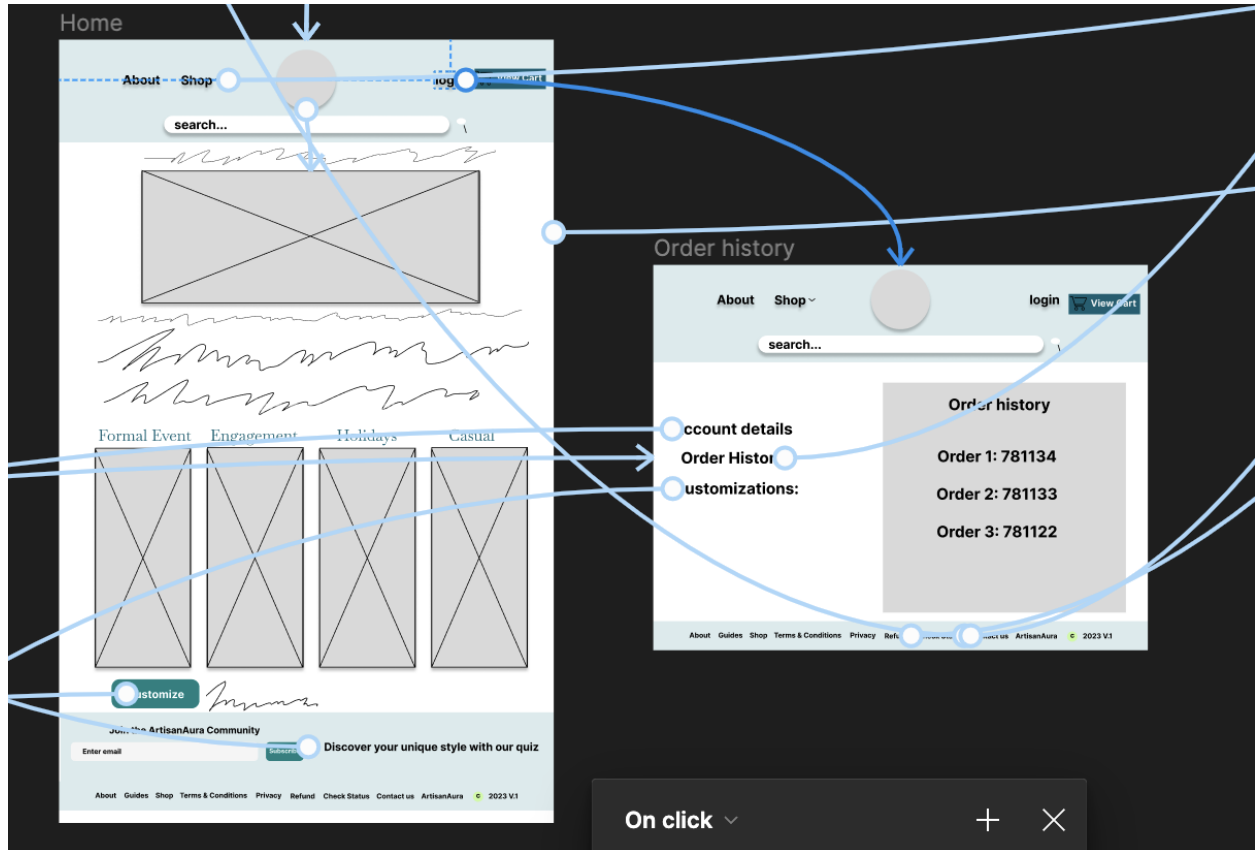
Saved of product

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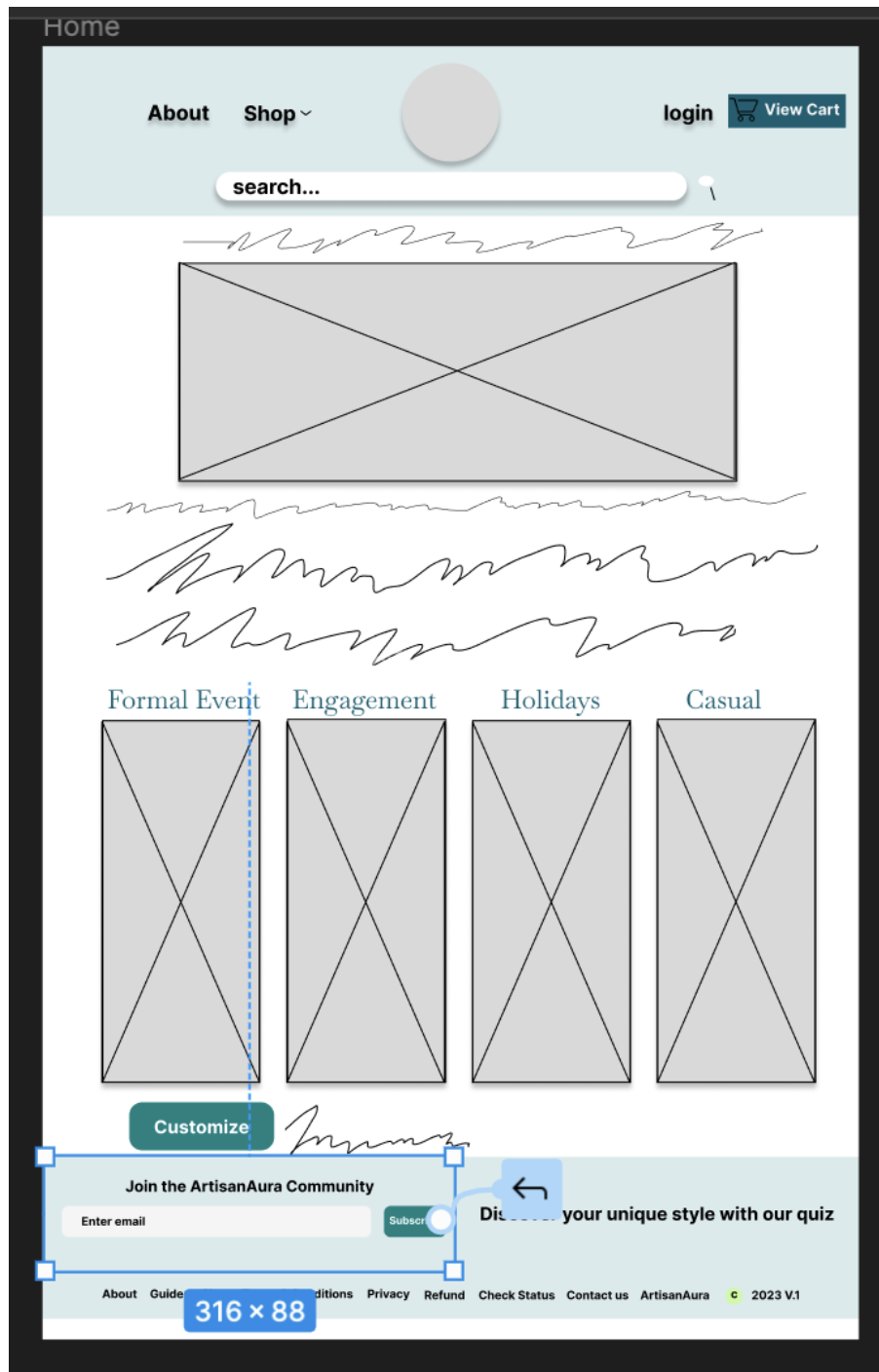
Save and Share Designs



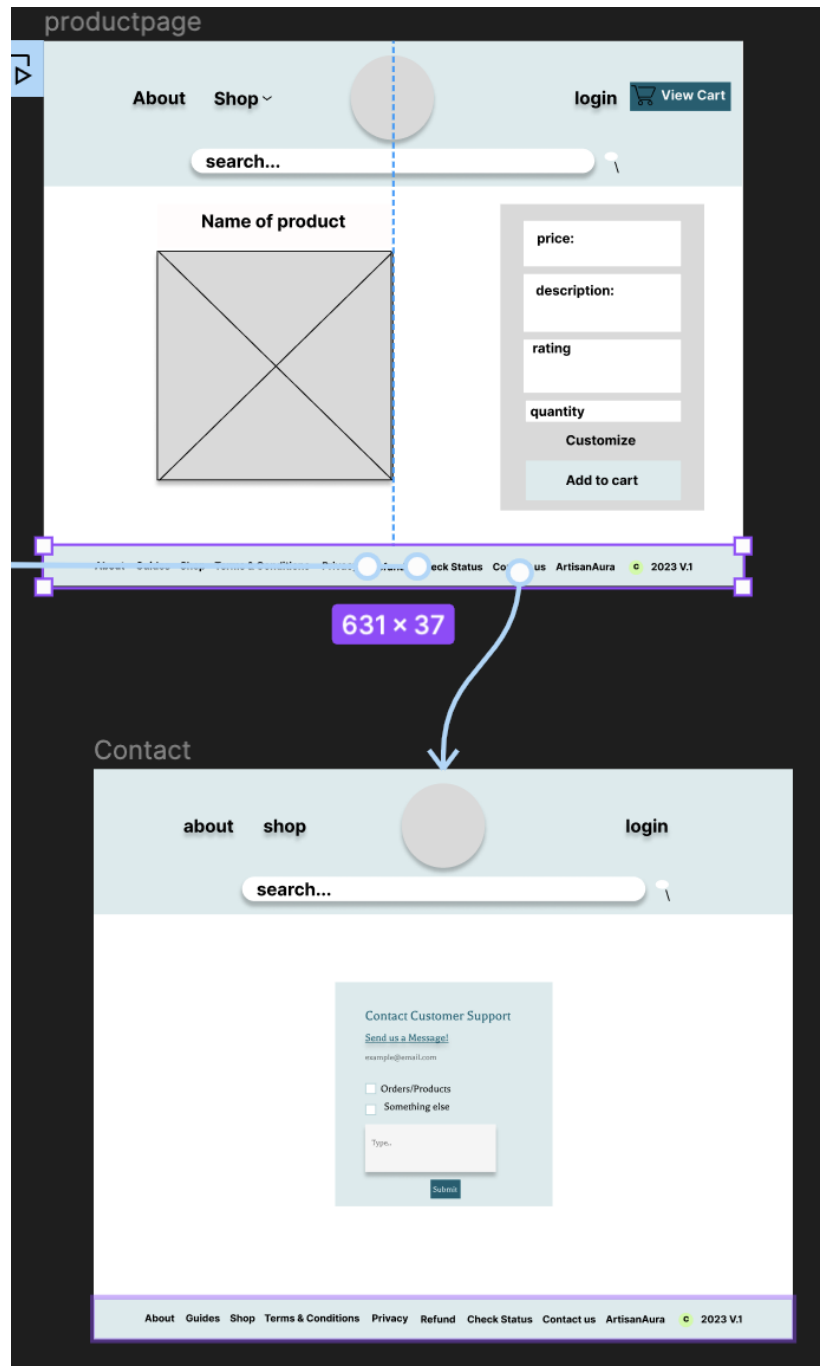
Checking status of order



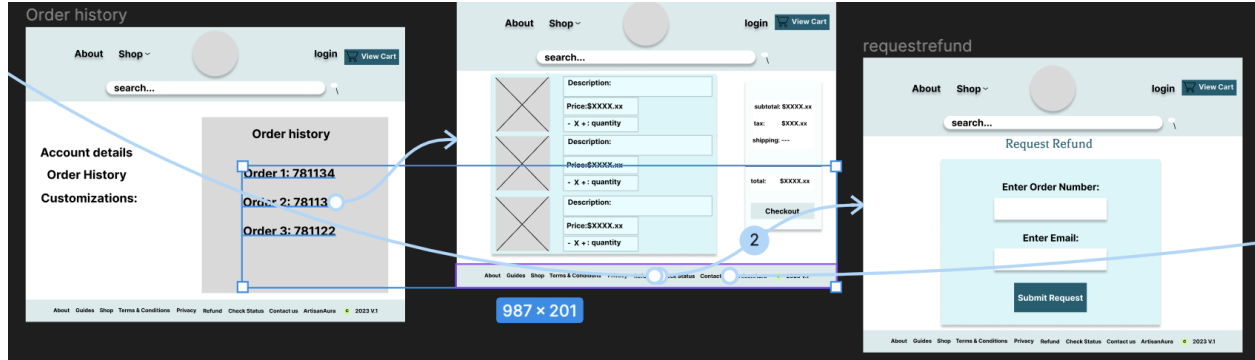
Sign up for newsletter



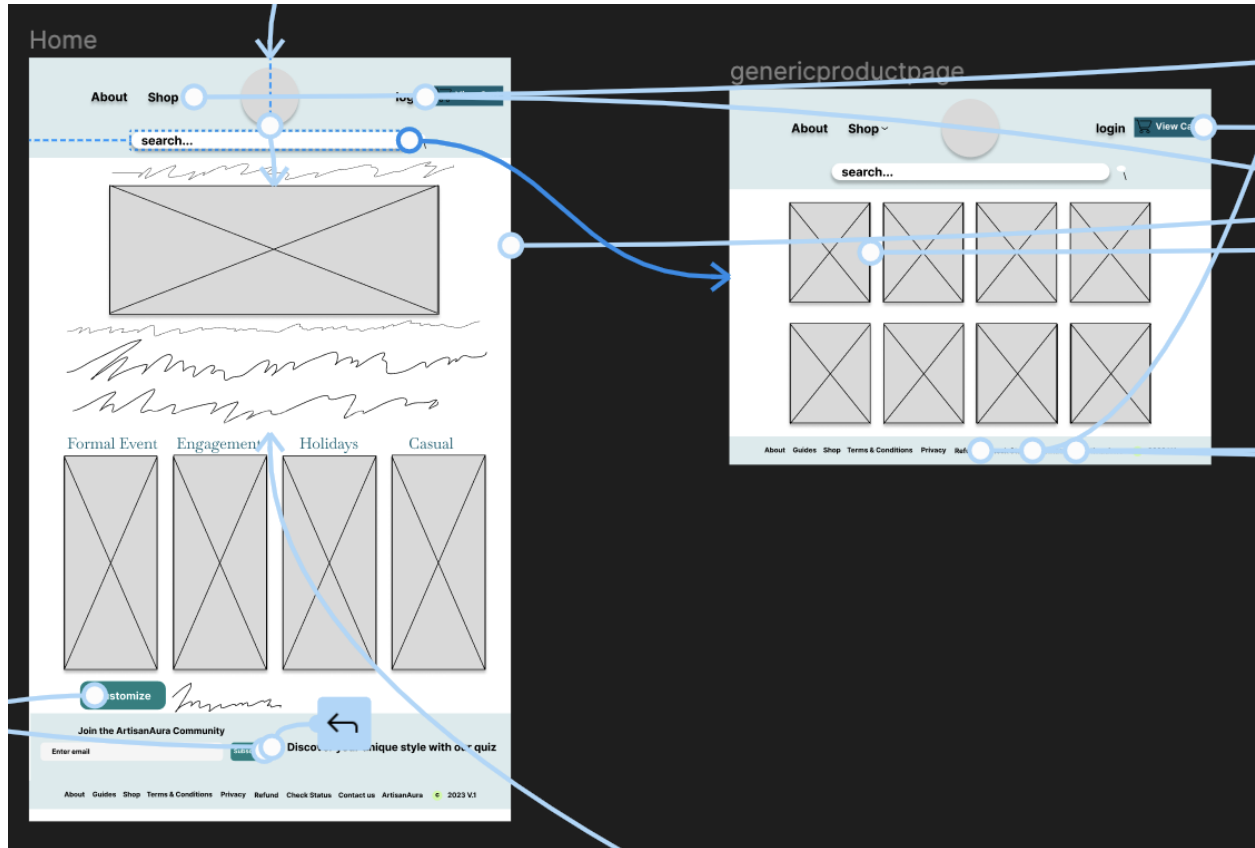
Contacting Customer Support



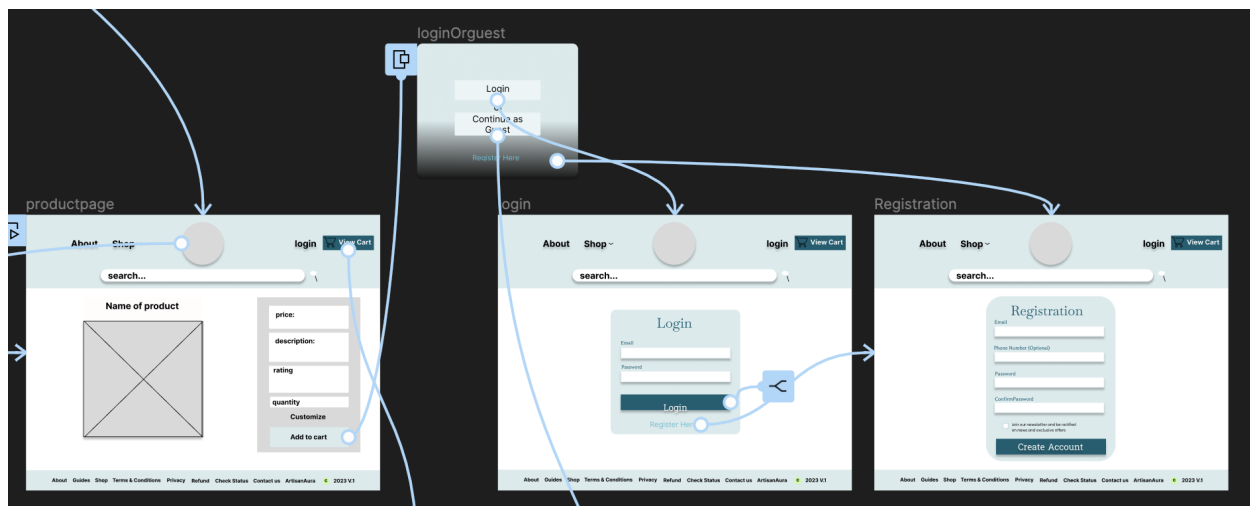
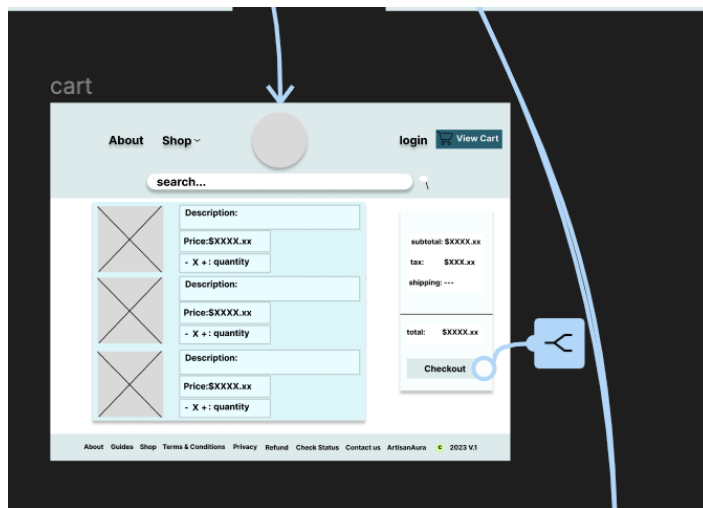
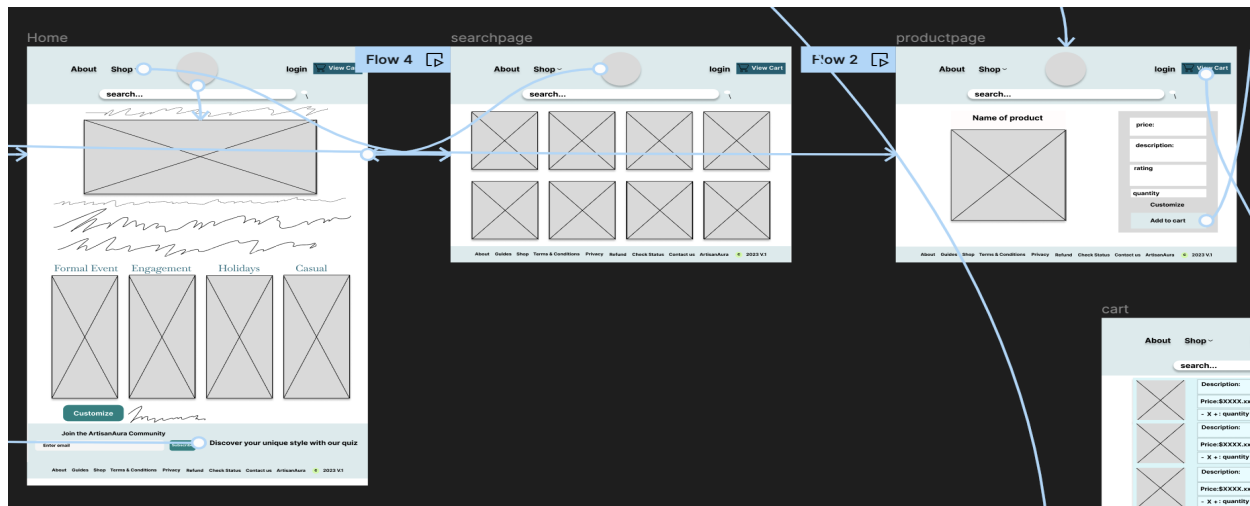
Request Refund

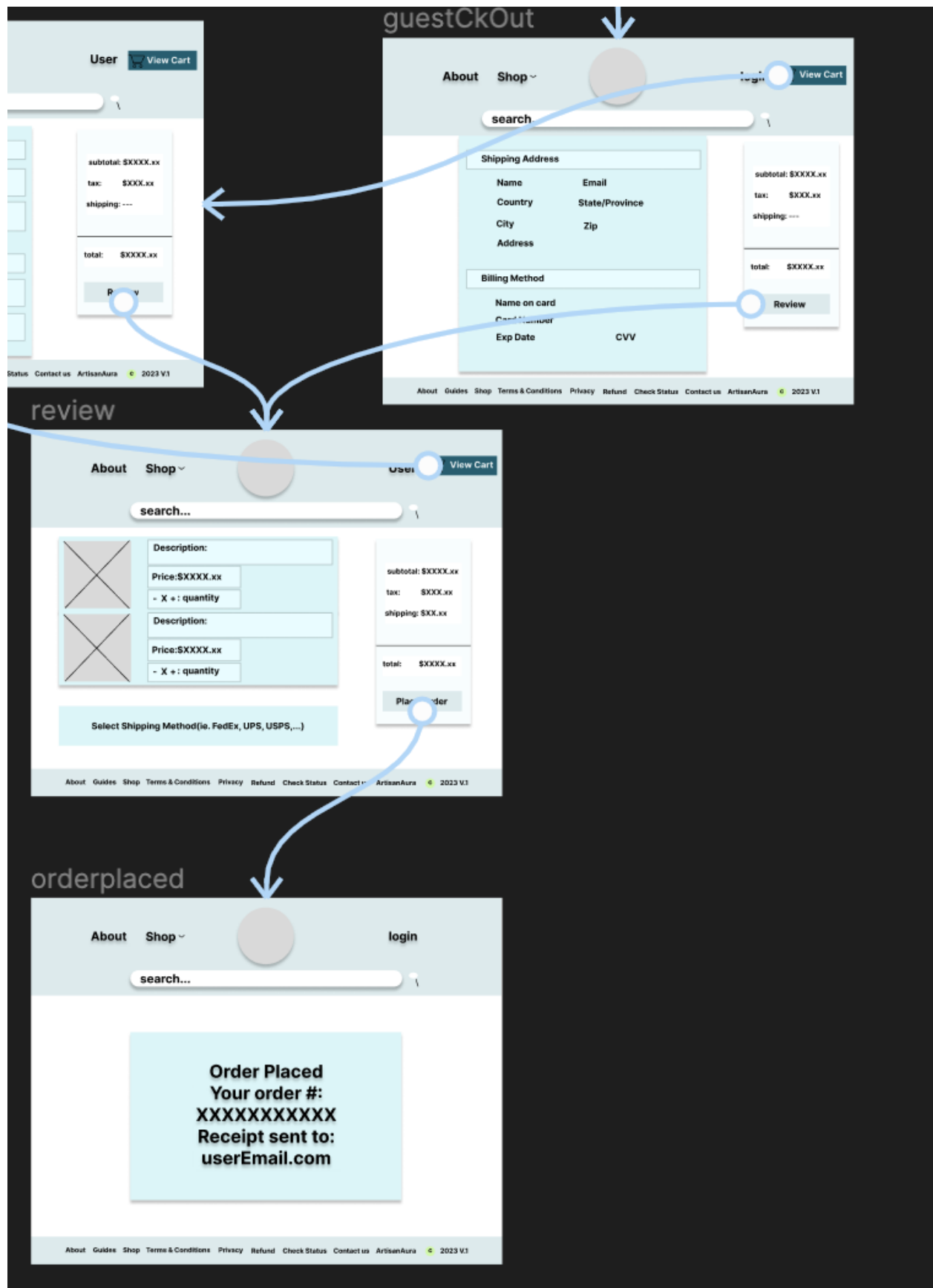


Search for product

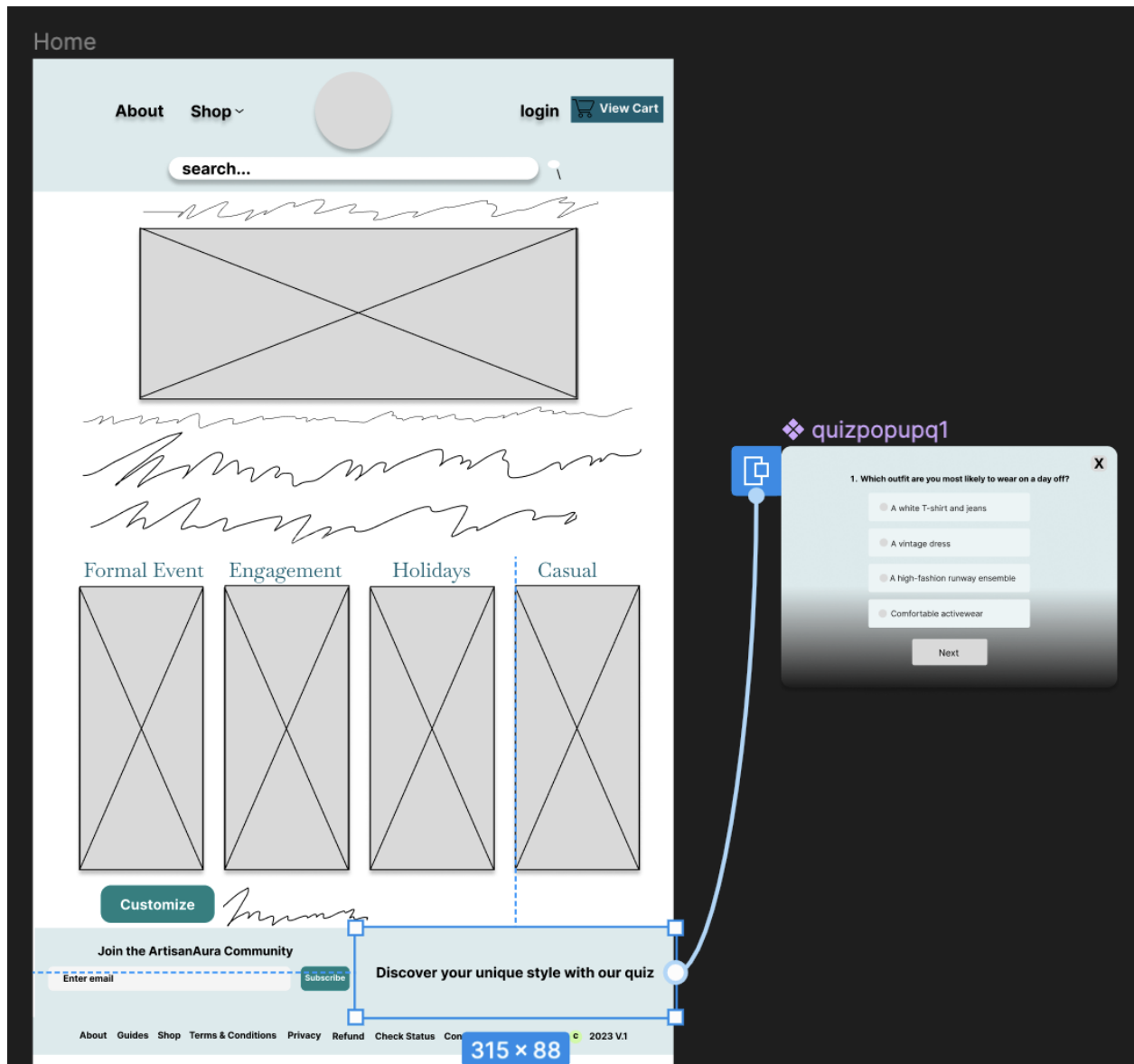


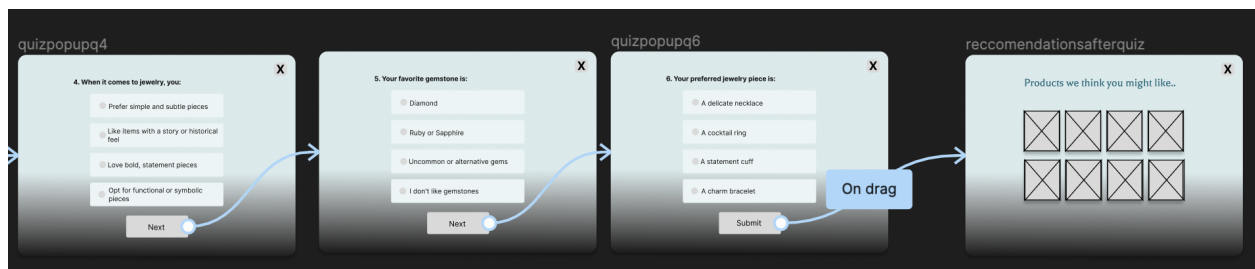
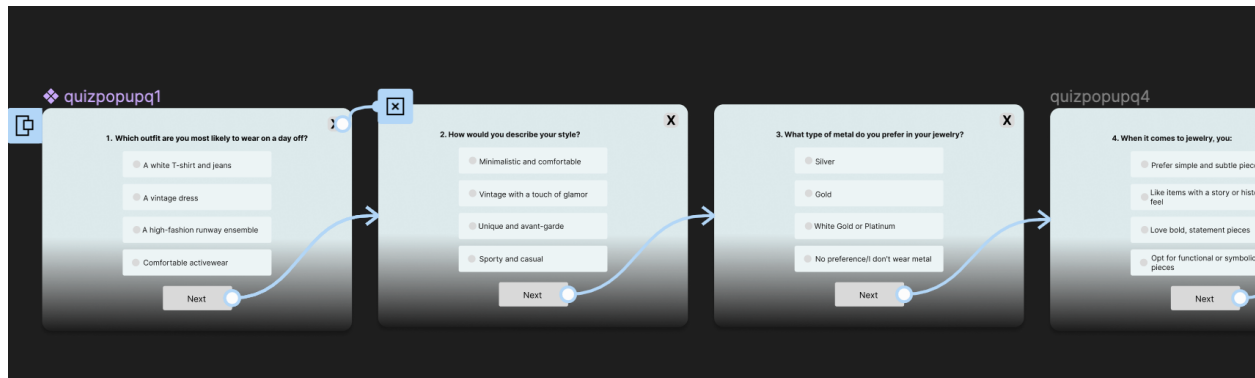
International Shipping



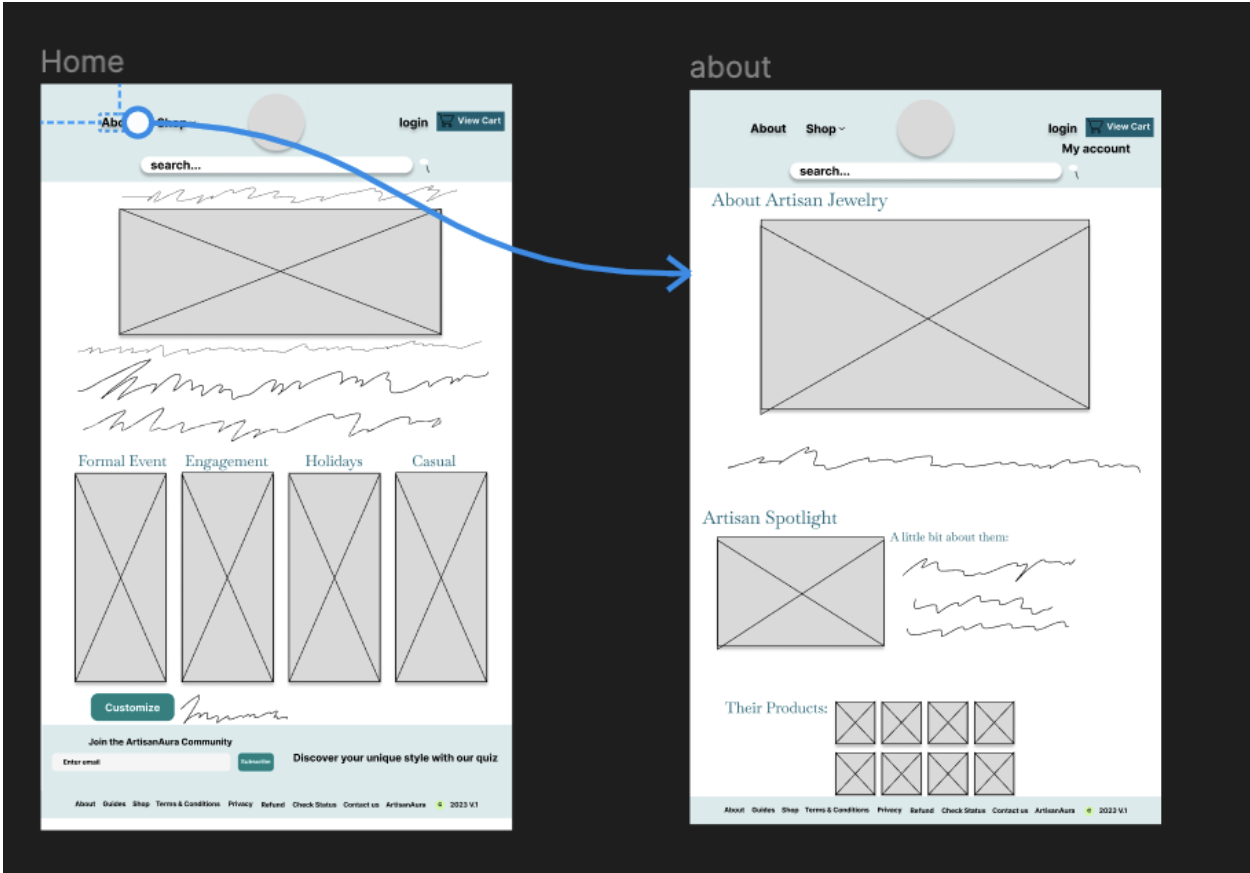


Jewelry Recommendation

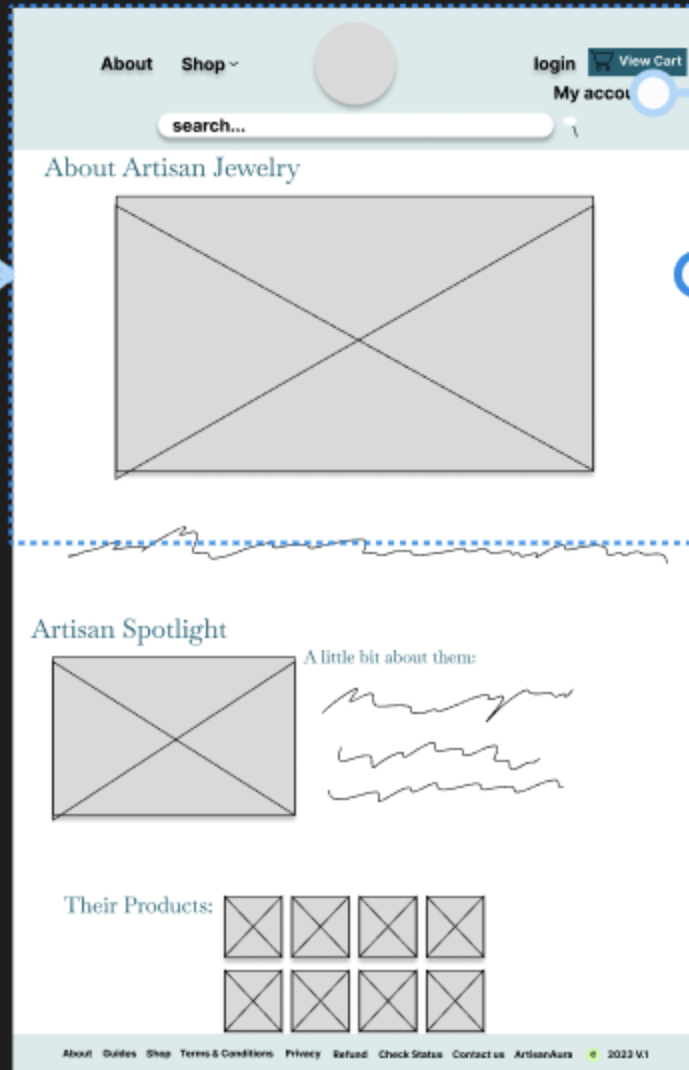




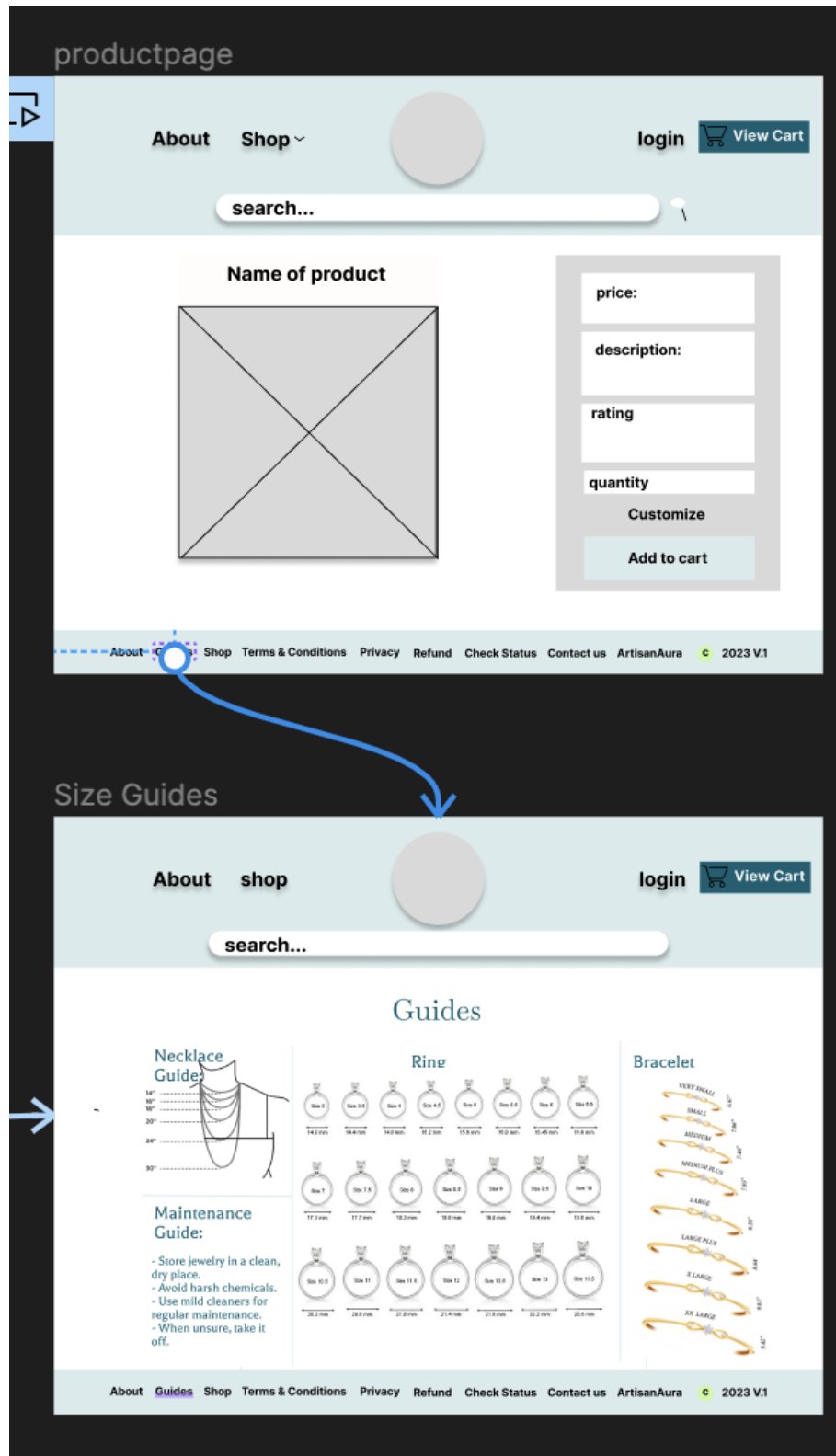
ARTISAN SPOTLIGHT



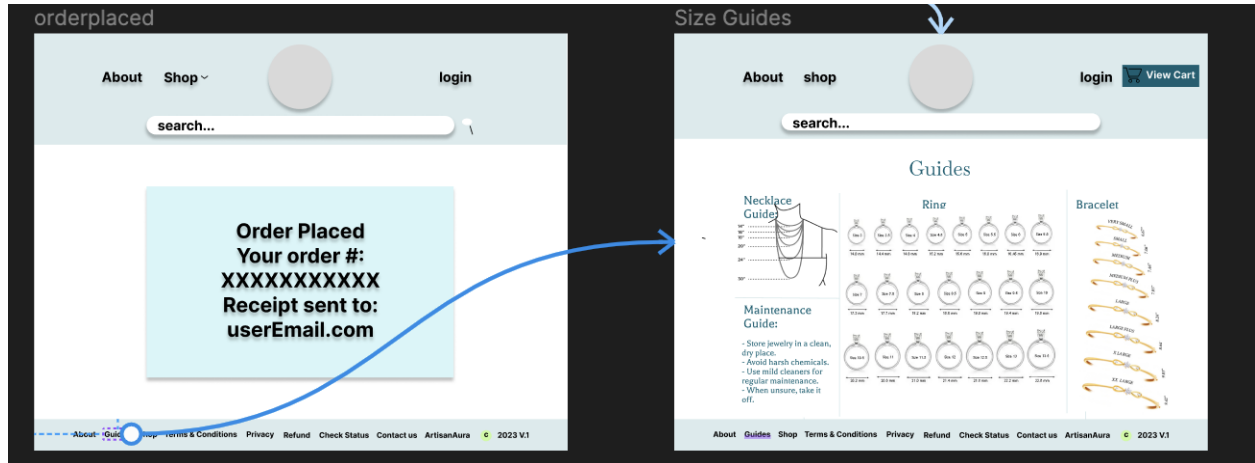
about



SIZING GUIDE

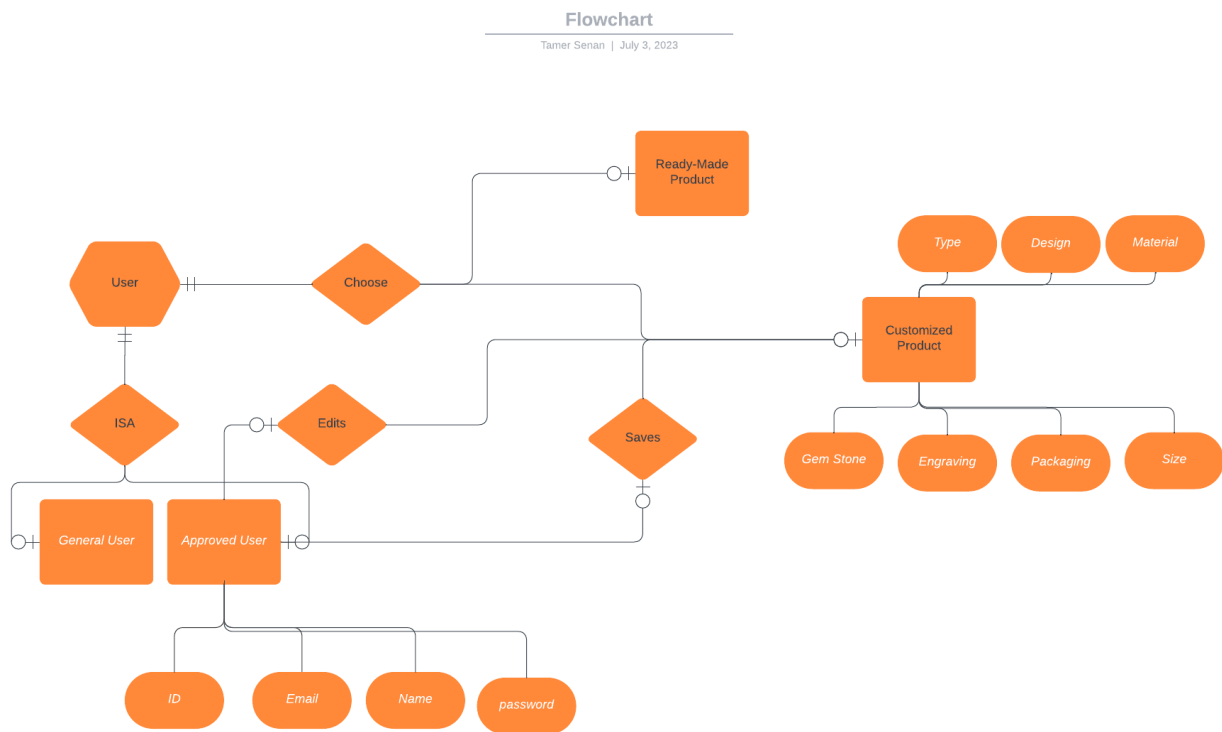


MAINTENANCE GUIDE

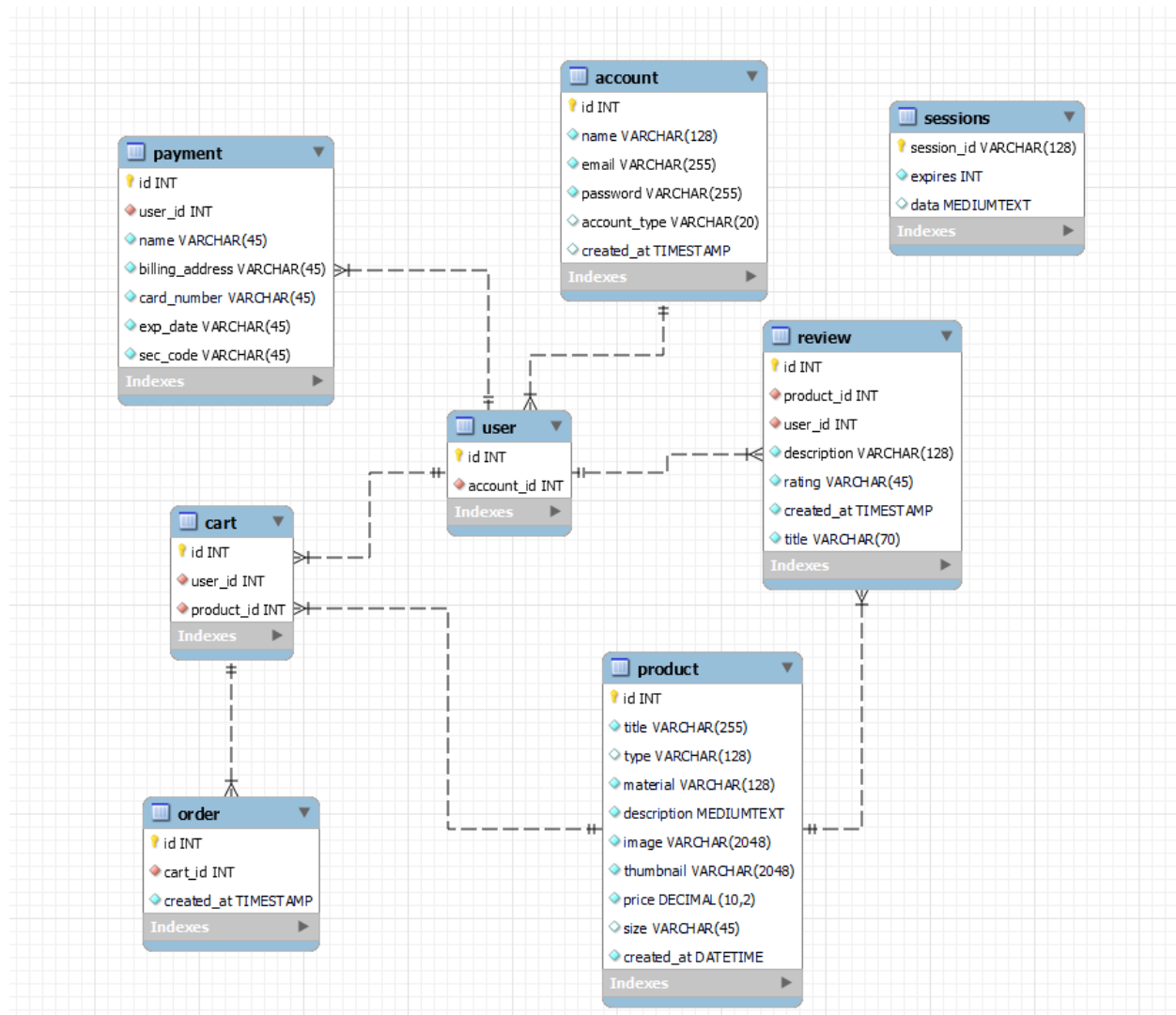


4. High level database architecture and organization

Entity Relationship Diagram (ERD):

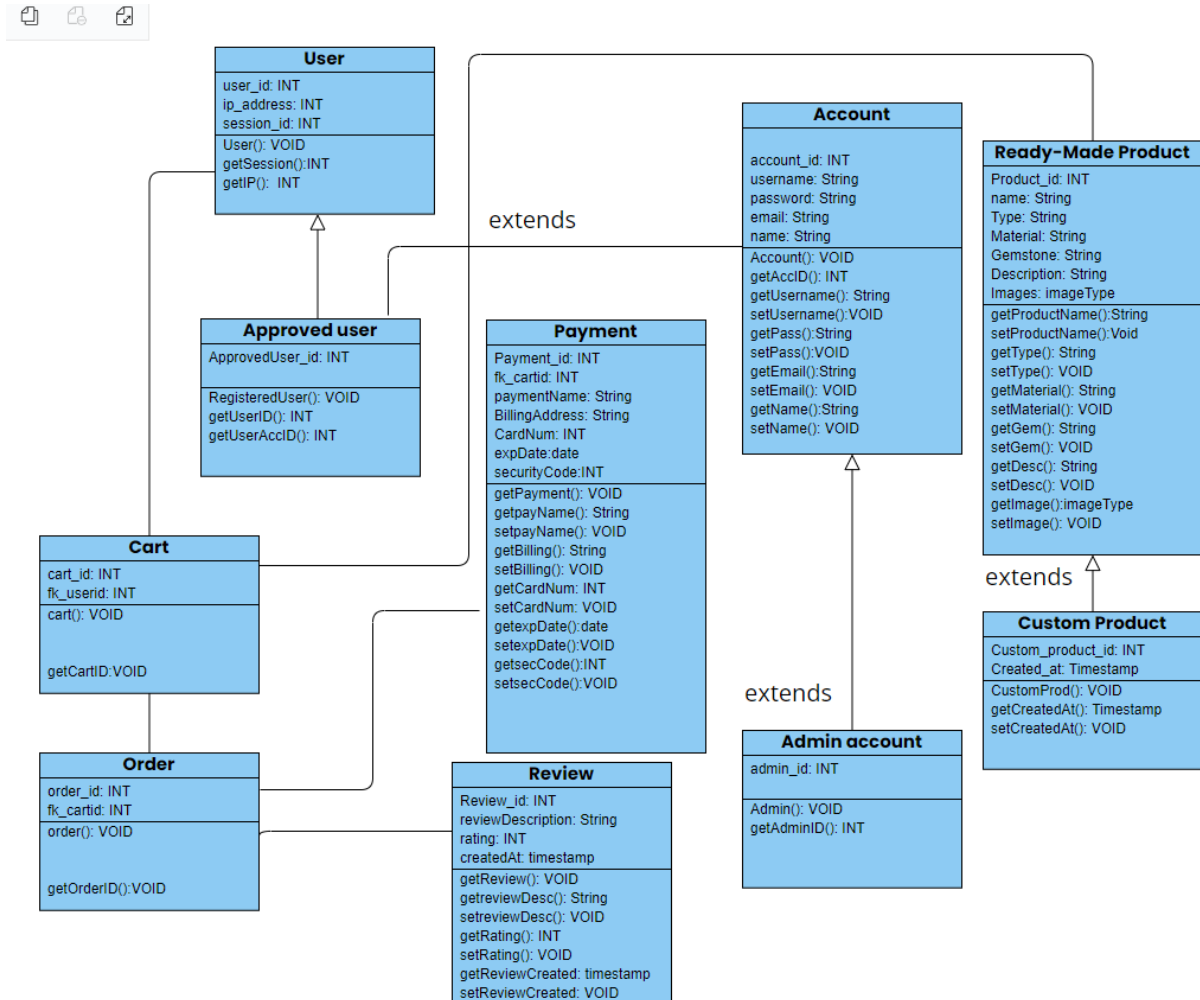


EER representing the data modeling of your database:

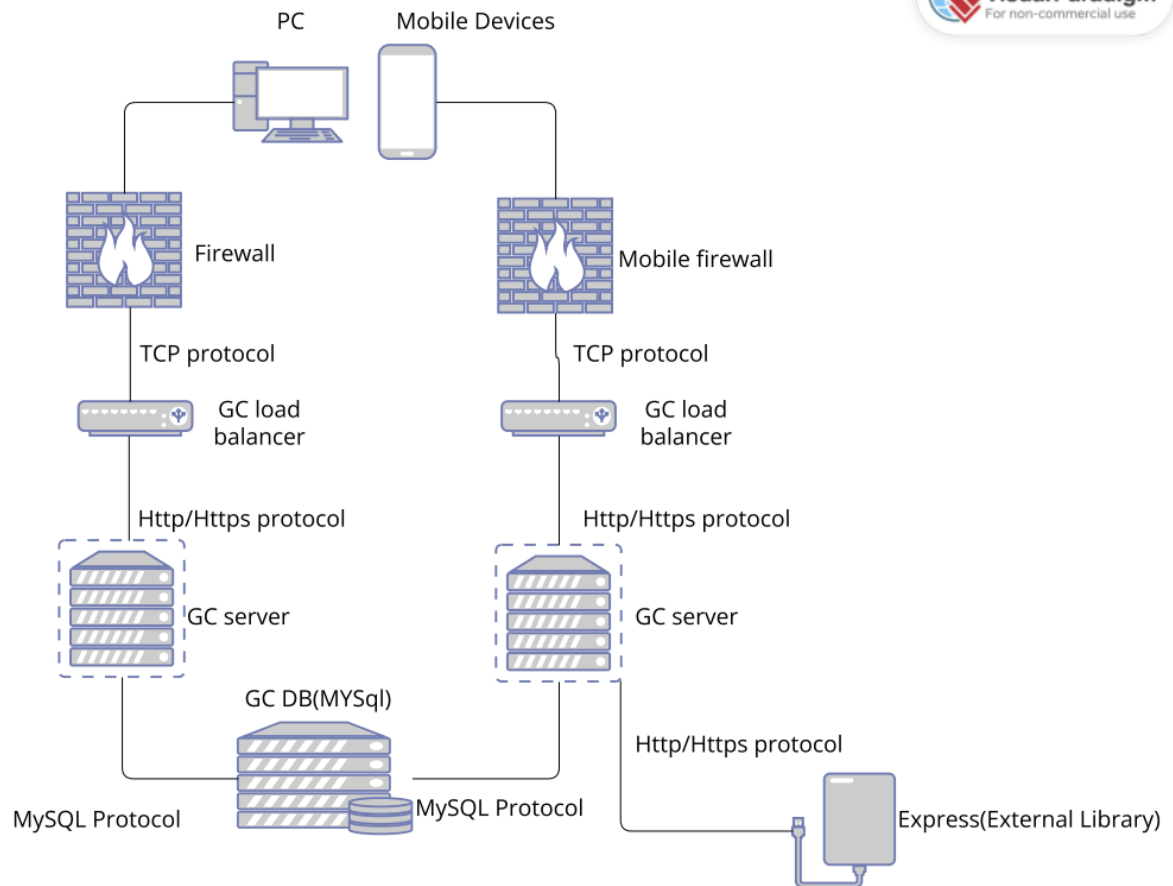


5. High Level Diagrams

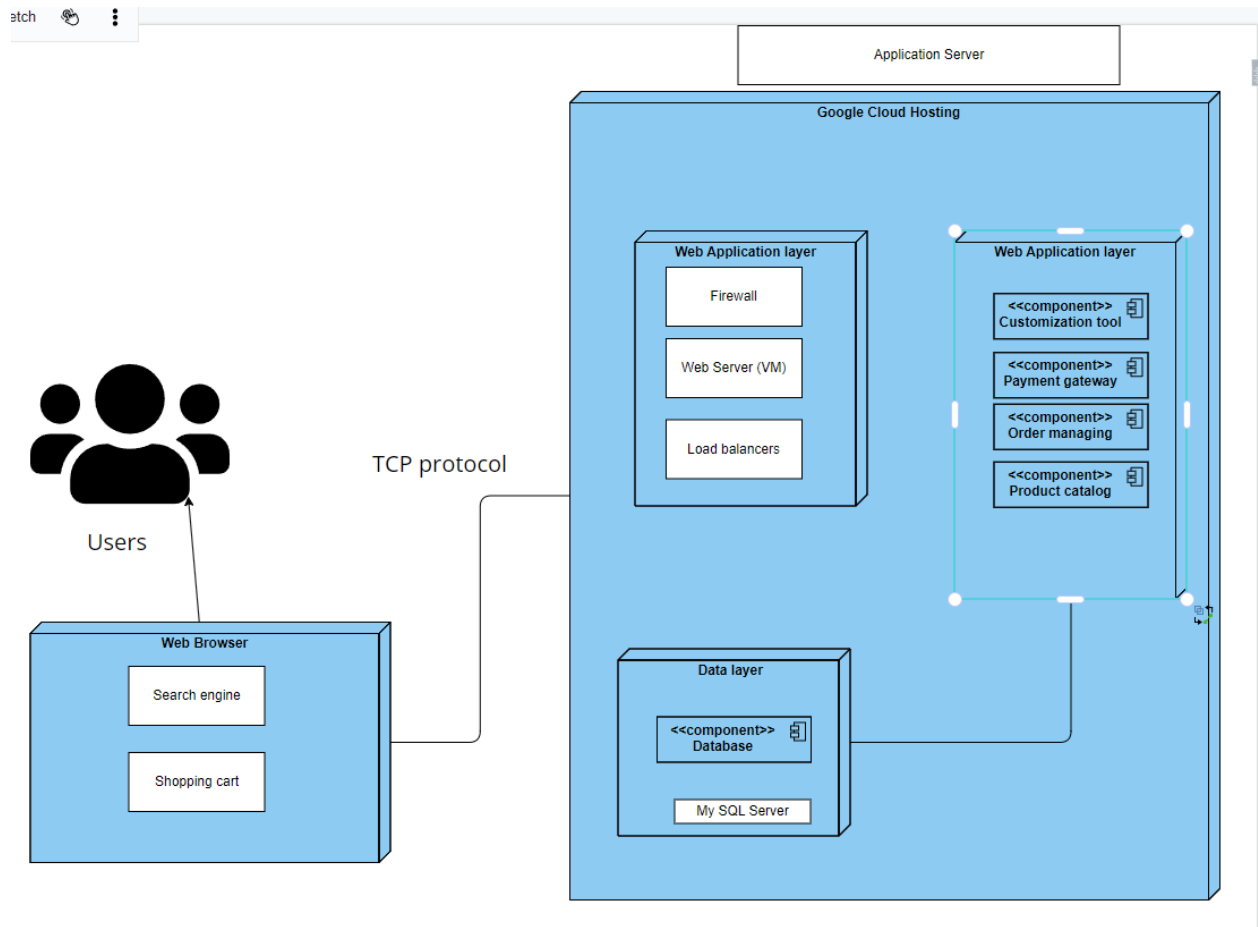
UML Diagram:



Application Networks Diagram:



Deployment Diagram:



6. List of Contributions in this milestone (detailed including contributions to the horizontal prototype)

- Tamer
 - Update GitHub branches; Review and update functional requirements; Create wireframes for all use cases with Figma: customer support, joining newsletter, jewelry recommendation, artisan spotlight, jewelry care and maintenance, create new account; Apply UX/UI from wireframes to website pages: jewelry care and maintenance guides, jewelry sizing guide, request refund
- Denean
 - Create EER diagram; Review ERD and update as needed; Create “add product” page; Database testing for “add product” form to upload images and descriptions to Google Cloud Storage Bucket then show product descriptions from database and images from Google Cloud in web page search results; Review and update data definitions; Review and update functional requirements; Update CSS, create notification, and add password verification for sign-in and registration; Create user profile page; Apply UX/UI from wireframes to website pages: product page, contact customer support, order status, save designs, profile page, create an account, shopping cart
- Daniel
 - Revise M2 document; Review UML diagram, application network diagram, deployment diagram and update as needed; Review and update functional requirements; Create and edit wireframes for all use cases with Figma; Apply UX/UI from wireframes to website pages: share design and

customize product. Created example single product test and custom product test pages.

- James
 - Create “add product” page; database testing for “add product” form to upload images and descriptions to Google Cloud Storage Bucket then show product descriptions from database and images from Google Cloud in web page search results; create Google Cloud Build Trigger and Google Cloud Run Service for development branch staging site; Review and update functional requirements; Create wireframes for all use cases with Figma: color options customization, customize necklace, international shipping; Apply UX/UI from wireframes to website pages: create an account, sign in as a user
- Yitian
 - Review diagrams for high level database architecture and organization (EER and ERD); review high level diagrams (UML, Application Network, Deployment); Database testing for “add product” form to upload images and descriptions to Google Cloud Storage Bucket then show product descriptions from database and images from Google Cloud in web page search results; Database maintenance, Review and update functional requirements; Apply UX/UI from wireframes to website pages: subscription page, product grid, style quiz

Member	Score
Tamer	2
Denean	2
Daniel	2
James	2
Yitian	2

Total of all scores = 10