Project Description

Our database serves as a platform for art galleries to oversee logistical information by modeling the transfer of art pieces between locations, the ownership of the art pieces, and the relationships between artists, artwork owners, and gallery curators. The application will be shared and used by art galleries, which may be museums or virtual galleries, worldwide to keep track of the movement of works of art for specific exhibitions. Other information including customers and the fares they pay to enter exhibits will be stored as well.

Timeline and Task Breakdown

*approximate due date

Jay - Back End

GET for all tables (6/19)

POST for all tables (6/19)

UPDATE for all tables (6/19)

DEL for all tables (6/19)

Implement queries for join, group by, having, nested aggregation, and division tables (6/20)

Insert data into tables (6/20)

Sending front-end for displaying (6/21)

Make document for front-end to use (6/21)

Willis - Front End

Pages for viewing art, customers, and the gallery (6/18)

Pages for adding/updating art, customers, and the gallery (6/18)

Navigating pages (6/19)

Implementing buttons (6/19)

Table display (6/20)

Notification to show successful add, update, or deletion (6/20)

Radio buttons/checkboxes/search bars for querying (6/21)

Alexander - GUI Design, Documentation, Quality Assurance

Design GUI using Figma (6/16)

Managing tasks and timeline for group (continuous)

Documentation for remaining modules (due dates not released yet)

Write SQL queries for join, group by, having, nested aggregation, and division tables (6/19)

Learn CSS+HTML (6/20)

Insert data into tables (6/20)

Working on back or front end where needed (6/21)

Testing application (6/22)

Whole Group

Frequently check-in with other group members to ensure plan is clear (continuous)

Organize/Practice presentation (6/22)

User Stories

Artwork

- 1. A user can search for artworks according to specific criteria.
- 2. A user can view a list of artworks at a specific gallery.
- 3. A user can view a list of artworks that are a part of a specific exhibit.
- 4. A user can see if a piece of art is digital, a sculpture, or a painting.

Customers

- 5. A user can add entries representing customers who have visited an exhibit.
- 6. A user can see a list of customers who have visited an exhibit.

Gallery Management

- 7. A user can add a new artwork to the database.
- 8. A user can transfer artworks from one gallery to another.
- 9. A user can delete an artwork from the database.
- 10. A user can see which artworks are owned by a person.

Additional Queries

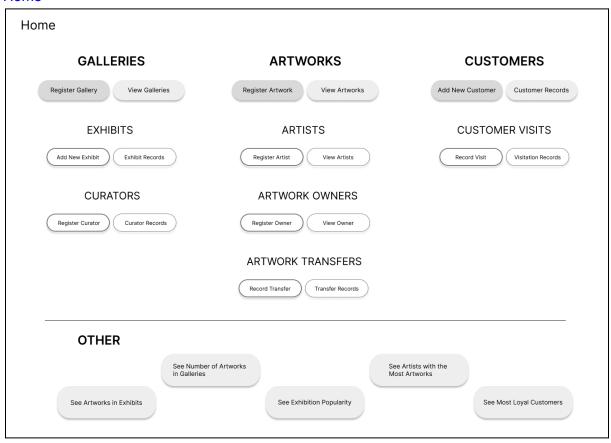
- 11. Join: A user can select artworks or exhibits to see what artworks are contained in which exhibits.
- 12. Aggregation w/ Group By: A user can select a gallery to see how many artworks are in it.
- 13. Aggregation w/ Having: A user can view the number of customers in exhibits with a minimum number of customers set by the user.
- 14. Nested Aggregation: A user can view the average number of artworks made by artists whose number of artworks is greater than the average number of artworks made by all artists who've made a certain type of artwork. The user can choose which type of artwork.
- 15. Division: A user can select a gallery and see which customers have visited every exhibit in that gallery.

Potential Challenges

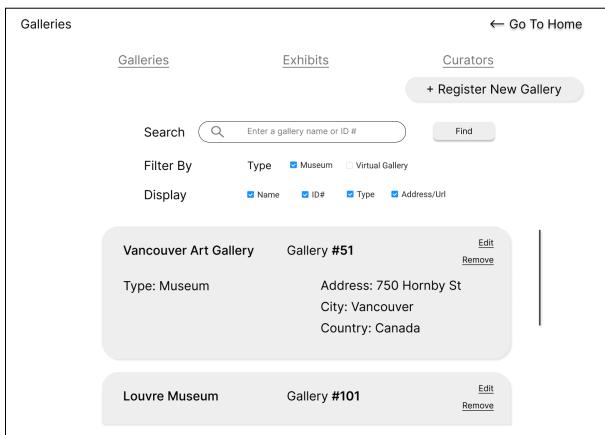
- Front end implementation may be quite challenging due to the number of necessary pages, filters, etc.
 - Willis (implementation) and Alexander (GUI design) will work together to implement the GUI,
 combining the design template with implementation of the front-end
- Creating logical queries for each of the required types of queries; also, writing the correct SQL statements for some of these more complex queries
 - We will work together to make sure the statements are logical and correct
 - Reach out to TAs if we have concerns about the gueries
- Time: there are so many different entity and relationship sets that the application covers, so it will be difficult to complete everything in a short amount of time
 - We will focus on the required/most important queries and pages, adding additional where time permits

GUI Design Outline

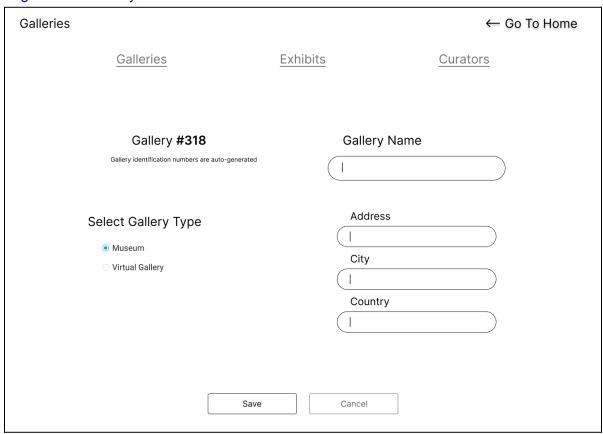
Home



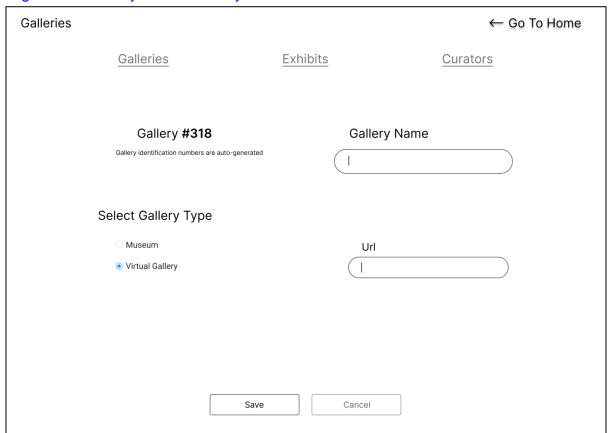
View Galleries

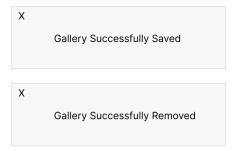


Register/Edit Gallery - Museum

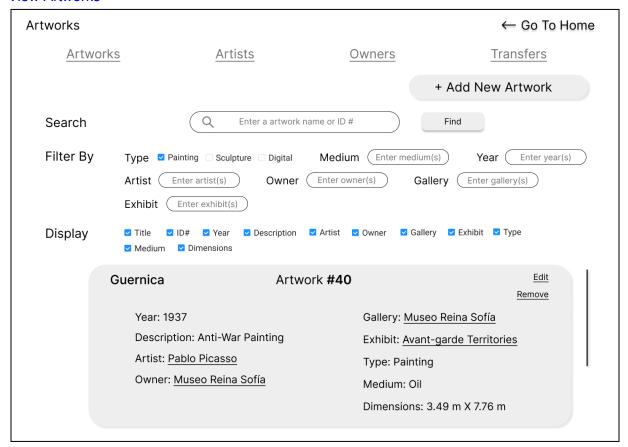


Register/Edit Gallery - Virtual Gallery

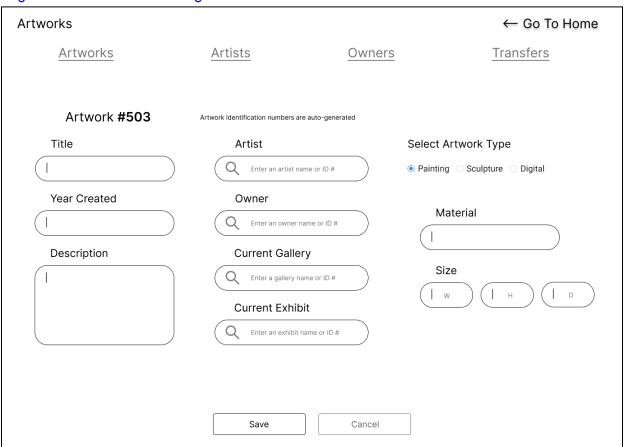




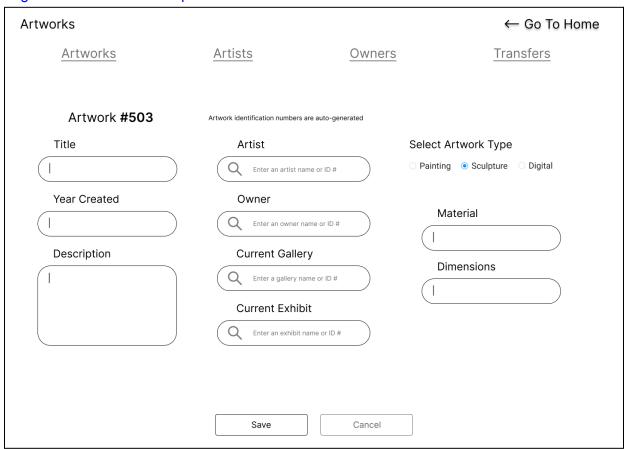
View Artworks



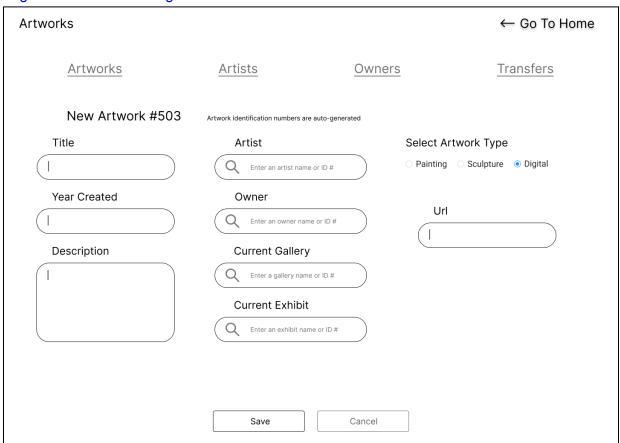
Register/Edit Artwork - Painting



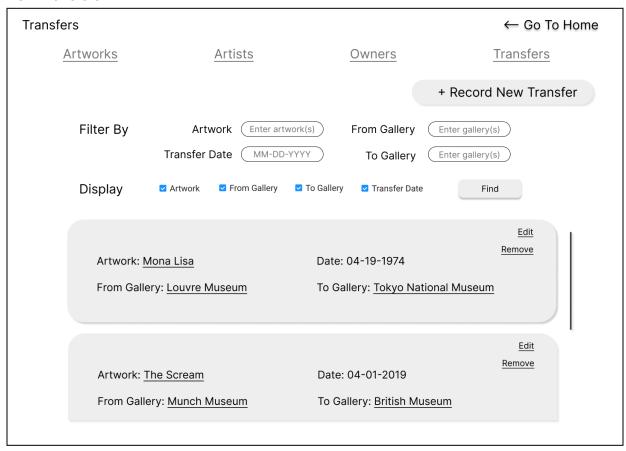
Register/Edit Artwork - Sculpture



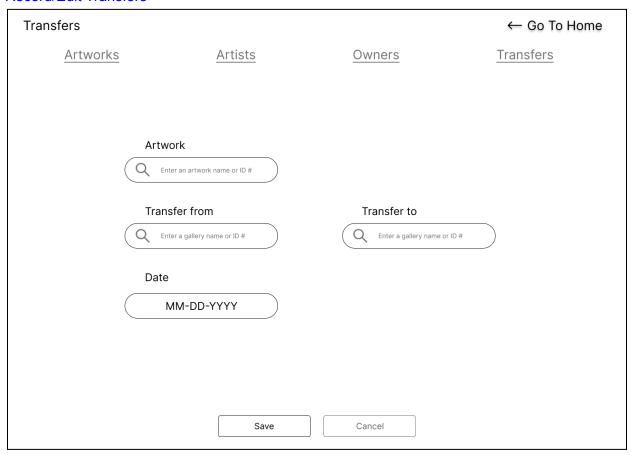
Register/Edit Artwork - Digital



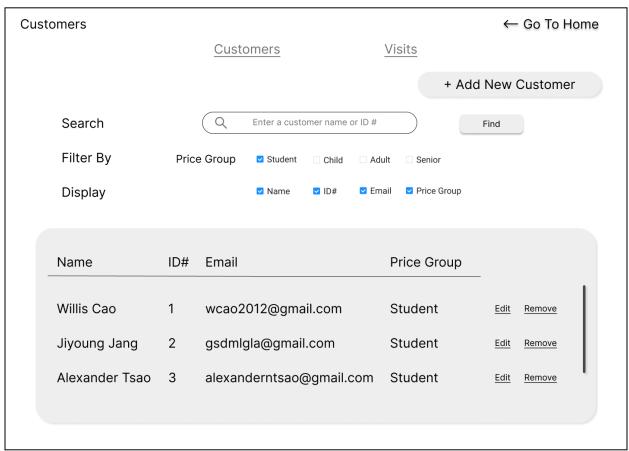
View Transfers



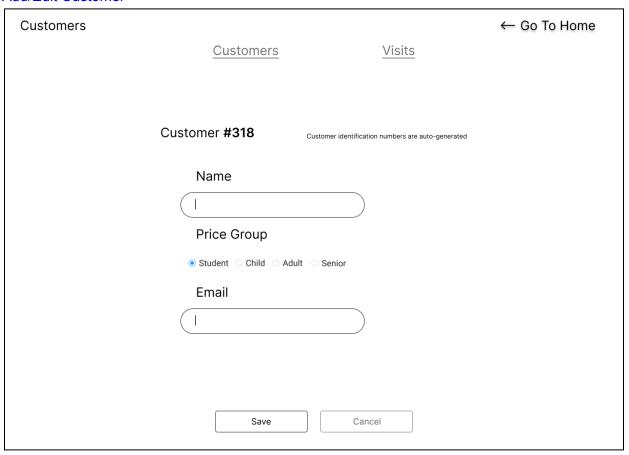
Record/Edit Transfers



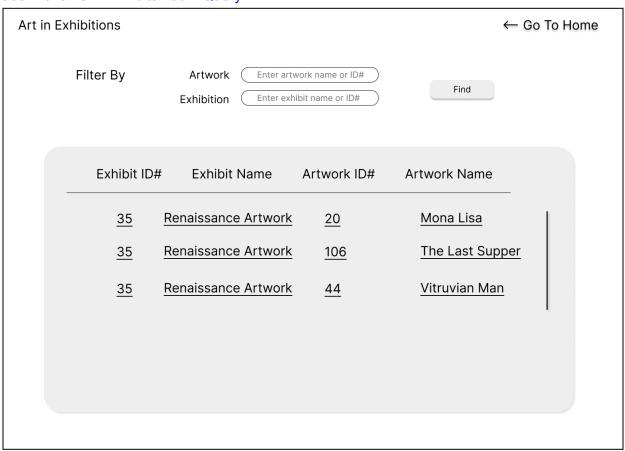
View Customers



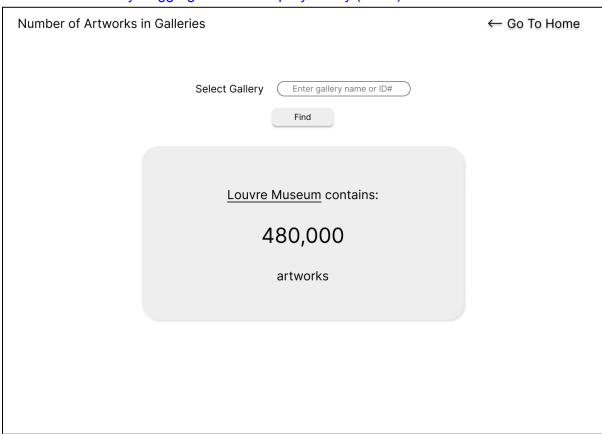
Add/Edit Customer



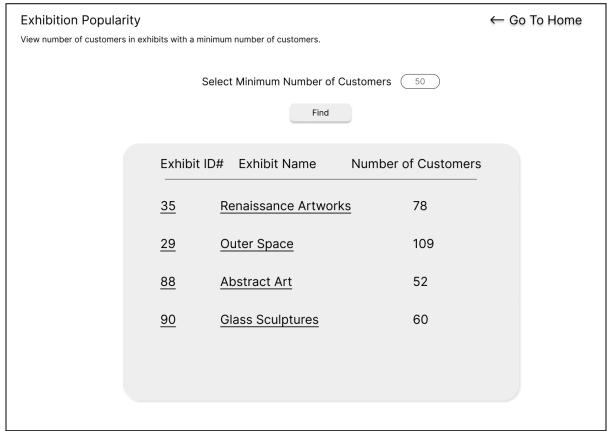
See Artworks in Exhibits - Join Query



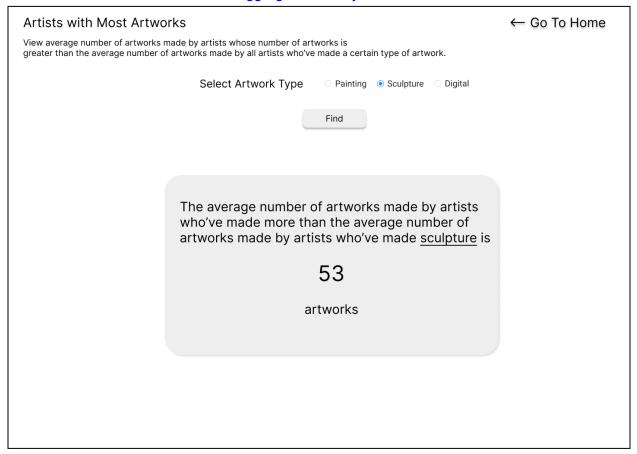
Artworks in Gallery - Aggregation w Group By Query (count)



See Exhibition Popularity - Aggregation w Having Query



Artists with Most Artworks - Nested Aggregation Query



Find Loyal Customers - Division Query

