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 queries
- 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

Home

GALLERIES

[Register Gallery] [View Galleries]

EXHIBITS

[Add New Exhibit] [Exhibit Records]

CURATORS

[Register Curator] [Curator Records]

ARTWORKS

[Register Artwork] [View Artworks]

ARTISTS

[Register Artist] [View Artists]

ARTWORK OWNERS

[Register Owner] [View Owner]

ARTWORK TRANSFERS

[Record Transfer] [Transfer Records]

CUSTOMERS

[Add New Customer] [Customer Records]

CUSTOMER VISITS

[Record Visit] [Visitation Records]

OTHER

[See Number of Artworks in Galleries]

[See Artists with the Most Artworks]

[See Artworks in Exhibits]

[See Exhibition Popularity]

[See Most Loyal Customers]

View Galleries

Galleries	← Go To Home

Galleries   Exhibits   Curators

[+ Register New Gallery]

Search   🔍 Enter a gallery name or ID #   [Find]

Filter By   Type   ☑ Museum   ☐ Virtual Gallery

Display   ☑ Name   ☑ ID#   ☑ Type   ☑ Address/Url

Vancouver Art Gallery   Gallery **#51**   Edit
Remove

Type: Museum   Address: 750 Hornby St
City: Vancouver
Country: Canada

Louvre Museum   Gallery **#101**   Edit
Remove

Register/Edit Gallery - Museum

Galleries   ← Go To Home

Galleries   Exhibits   Curators

Gallery **#318**   Gallery Name

Gallery identification numbers are auto-generated

[|]

Select Gallery Type   Address
                                          [|]

⦿ Museum   City
○ Virtual Gallery   [|]

                                          Country
                                          [|]

Save   Cancel

Register/Edit Gallery - Virtual Gallery

Galleries   ← Go To Home

Galleries   Exhibits   Curators

Gallery **#318**   Gallery Name

Gallery identification numbers are auto-generated

[|]

Select Gallery Type

○ Museum   Url
⦿ Virtual Gallery   [|]

Save   Cancel

Pop-Ups

X

Gallery Successfully Saved

X

Gallery Successfully Removed

View Artworks

Artworks   ← Go To Home

Artworks   Artists   Owners   Transfers

+ Add New Artwork

Search   🔍 Enter a artwork name or ID #   Find

Filter By   Type ☑ Painting ☐ Sculpture ☐ Digital   Medium (Enter medium(s))   Year (Enter year(s))

Artist (Enter artist(s))   Owner (Enter owner(s))   Gallery (Enter gallery(s))

Exhibit (Enter exhibit(s))

Display   ☑ Title ☑ ID# ☑ Year ☑ Description ☑ Artist ☑ Owner ☑ Gallery ☑ Exhibit ☑ Type
              ☑ Medium ☑ Dimensions

Guernica   Artwork #40   Edit
                                                               Remove

Year: 1937   Gallery: Museo Reina Sofía

Description: Anti-War Painting   Exhibit: Avant-garde Territories

Artist: Pablo Picasso   Type: Painting

Owner: Museo Reina Sofía   Medium: Oil

                                        Dimensions: 3.49 m X 7.76 m

Register/Edit Artwork - Painting

Artworks   ← Go To Home

Artworks   Artists   Owners   Transfers

Artwork #503
Artwork identification numbers are auto-generated

Title
`|`

Year Created
`|`

Description
`|`

Artist
🔍 Enter an artist name or ID #

Owner
🔍 Enter an owner name or ID #

Current Gallery
🔍 Enter a gallery name or ID #

Current Exhibit
🔍 Enter an exhibit name or ID #

Select Artwork Type

◉ Painting   ○ Sculpture   ○ Digital

Material
`|`

Size
`| W`   `| H`   `| D`

Save   Cancel

Register/Edit Artwork - Sculpture

Artworks   ← Go To Home

Artworks   Artists   Owners   Transfers

Artwork #503
Artwork identification numbers are auto-generated

Title
`|`

Year Created
`|`

Description
`|`

Artist
🔍 Enter an artist name or ID #

Owner
🔍 Enter an owner name or ID #

Current Gallery
🔍 Enter a gallery name or ID #

Current Exhibit
🔍 Enter an exhibit name or ID #

Select Artwork Type

○ Painting   ◉ Sculpture   ○ Digital

Material
`|`

Dimensions
`|`

Save   Cancel

Register/Edit Artwork - Digital

Artworks   ← Go To Home

| Artworks | Artists | Owners | Transfers |

New Artwork #503   Artwork identification numbers are auto-generated

Title
[   ]

Year Created
[   ]

Description
[   ]

Artist
🔍 Enter an artist name or ID #

Owner
🔍 Enter an owner name or ID #

Current Gallery
🔍 Enter a gallery name or ID #

Current Exhibit
🔍 Enter an exhibit name or ID #

Select Artwork Type
○ Painting   ○ Sculpture   ⦿ Digital

Url
[   ]

[Save]   [Cancel]

View Transfers

Transfers   ← Go To Home

| Artworks | Artists | Owners | Transfers |

[+ Record New Transfer]

Filter By   Artwork [Enter artwork(s)]   From Gallery [Enter gallery(s)]

Transfer Date [MM-DD-YYYY]   To Gallery [Enter gallery(s)]

Display   ☑ Artwork   ☑ From Gallery   ☑ To Gallery   ☑ Transfer Date   [Find]

Edit
Remove

Artwork: Mona Lisa   Date: 04-19-1974

From Gallery: Louvre Museum   To Gallery: Tokyo National Museum

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Edit
Remove

Artwork: The Scream   Date: 04-01-2019

From Gallery: Munch Museum   To Gallery: British Museum

Record/Edit Transfers

Transfers   ← Go To Home

Artworks   Artists   Owners   Transfers

Artwork

🔍 Enter an artwork name or ID #

Transfer from   Transfer to

🔍 Enter a gallery name or ID #   🔍 Enter a gallery name or ID #

Date

MM-DD-YYYY

Save   Cancel

View Customers

Customers   ← Go To Home

Customers   Visits

+ Add New Customer

Search   🔍 Enter a customer name or ID #   Find

Filter By   Price Group   ☑ Student ☐ Child ☐ Adult ☐ Senior

Display   ☑ Name ☑ ID# ☑ Email ☑ Price Group

Name	ID#	Email	Price Group		
Willis Cao	1	wcao2012@gmail.com	Student	Edit	Remove
Jiyoung Jang	2	gsdmlgla@gmail.com	Student	Edit	Remove
Alexander Tsao	3	alexanderntsao@gmail.com	Student	Edit	Remove

Add/Edit Customer

Customers   ← Go To Home

Customers   Visits

Customer **#318**   Customer identification numbers are auto-generated

Name

[   ]

Price Group

◉ Student   ○ Child   ○ Adult   ○ Senior

Email

[   ]

[Save]   [Cancel]

See Artworks in Exhibits - Join Query

Art in Exhibitions   ← Go To Home

Filter By   Artwork   [Enter artwork name or ID#]
                 Exhibition   [Enter exhibit name or ID#]   [Find]

Exhibit ID#	Exhibit Name	Artwork ID#	Artwork Name
35	Renaissance Artwork	20	Mona Lisa
35	Renaissance Artwork	106	The Last Supper
35	Renaissance Artwork	44	Vitruvian Man

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

Number of Artworks in Galleries   ← Go To Home

Select Gallery   [Enter gallery name or ID#]

[Find]

Louvre Museum contains:

480,000

artworks

See Exhibition Popularity - Aggregation w Having Query

Exhibition Popularity   ← Go To Home

View number of customers in exhibits with a minimum number of customers.

Select Minimum Number of Customers   (50)

[Find]

Exhibit ID#	Exhibit Name	Number of Customers
35	Renaissance Artworks	78
29	Outer Space	109
88	Abstract Art	52
90	Glass Sculptures	60

Artists with Most Artworks - Nested Aggregation Query

Artists with Most Artworks   ← Go To Home

View 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.

Select Artwork Type   ○ Painting   ◉ Sculpture   ○ Digital

Find

The average number of artworks made by artists
who've made more than the average number of
artworks made by artists who've made <u>sculpture</u> is

53

artworks

Find Loyal Customers - Division Query

Find Loyal Customers   ← Go To Home

Find customers that have visited every exhibit at a certain gallery.

Select Gallery   (Enter gallery name or ID#)

Find

Customer ID#	Customer Name
<u>2</u>	<u>Jiyoung Jang</u>