DBMS Practical Assignments

Paper: CSM105(P) Module 2: Database Management System

Implementation Screenshots

Group - A

M.Sc. in Computer Science, Semester I

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IMPLEMENTATION DETAILS

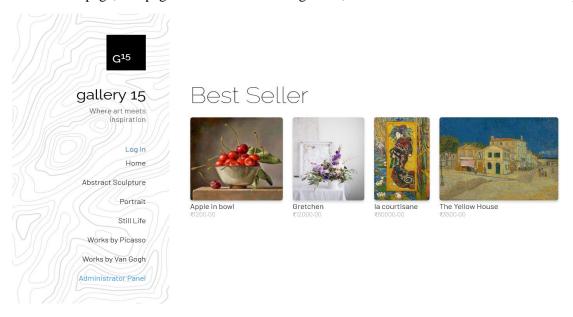
The implementation consists of a front-end for customers to browse and order artworks, a customer panel (or 'Your Account') which allows a customer to manage their artist and group preferences and see order details, and an Administrator panel which allows a person with administrative account to log in and manage all aspects of the system along with generating a sales report.

Management of the artists and artworks (that is, addition, editing, and deletion) is managed directly by the administrator, not by the artist themselves, and can be done easily through various forms and tables present in the administrator's panel. A separate login and panel system, however, can be easily added to this system with minimal changes to the rest of it, by creation of a separate login-screen-enabled panel that has a duplicate of said forms for addition, editing and deletion of artists and artworks.

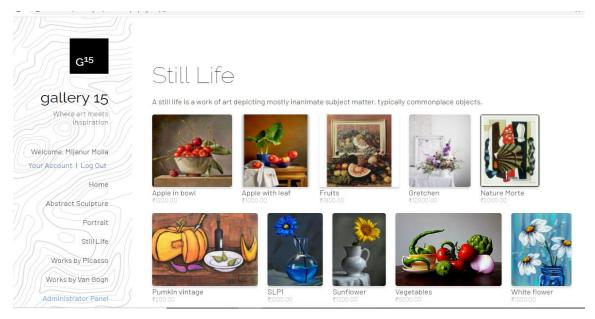
SCREENSHOTS OF THE VIEWS AND REPORTS

FOR THE CUSTOMER FACING WEBSITE

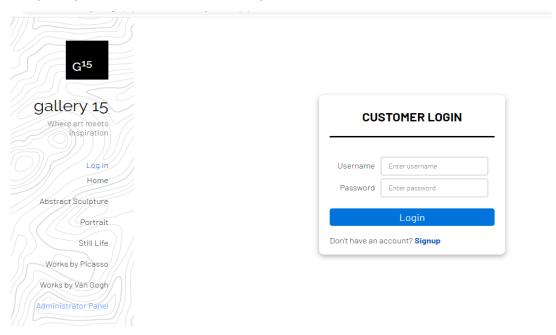
1. View: Homepage, this page shows the best-selling items, that is items that are sold more than 9 pieces.



2. View: Group View Page/Gallery, this page shows all images that belong to a given group.



3. Form: Login Page, allows user (customer) to log in.

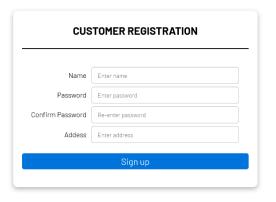


With wrong username and password input:

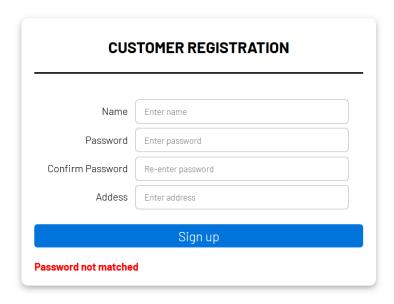


4. Form: Sign Up page, this page allows the user to sign up (or register) with the system and takes in all relevant details for each user.

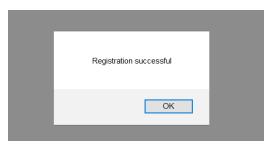




Error shown when passwords mismatch:

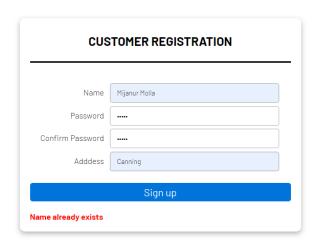


Confirmation shown on successful registration:

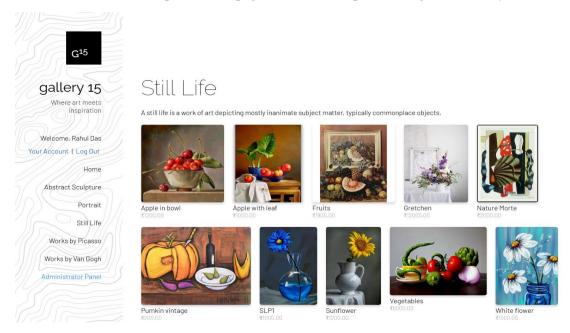


It shows an error message if the customer name already exists, as customer name is the primary key.





5. View: Page after logging in, in this view there are changes to the sidebar to show user information, such as a link to the user's orders and preferences page as well as an option to Log Out of the system.



6. View: Buy page, appears after clicking an artwork (image) which allows the user to proceed to the order page. The following screenshot shows the situation in which pieces are not available. In this situation the customers can't order the artwork.



The following screenshot shows the situation in which pieces are available. In this situation the customers *can* order the artwork.

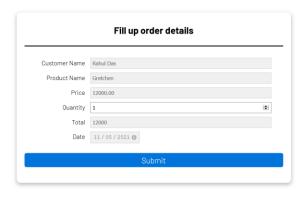


Apple with leaf

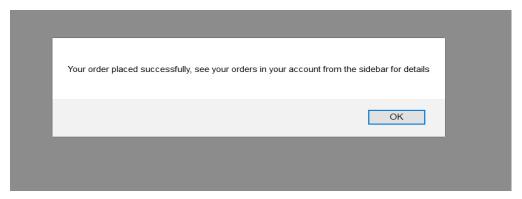
Title : Apple With Leaf Artist : Pablo Ruiz Picasso Type Of Art : Painting Group : Still Life Current Price: ₹1000.00

7. Form: Order Page. Allows users to order an item. When a user clicks buy now, they are redirected to the login page (if they are not logged in) and then automatically redirected to this order form. In case a user is logged in, they are simply forwarded to this page. Most details are fetched from the database.

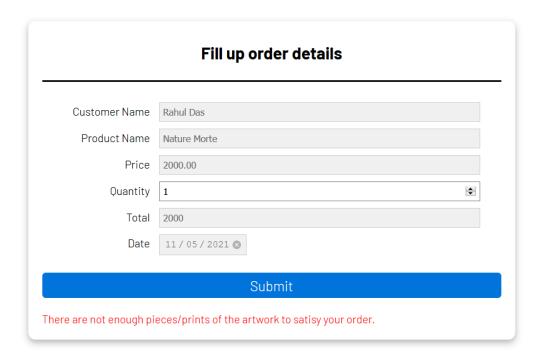




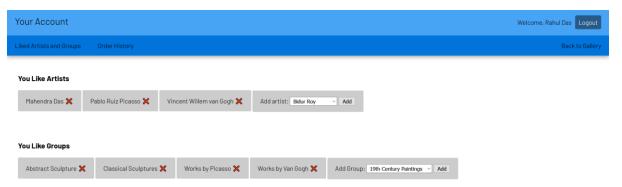
Dialog shown on successful ordering:



Message shown on ordering too many pieces:

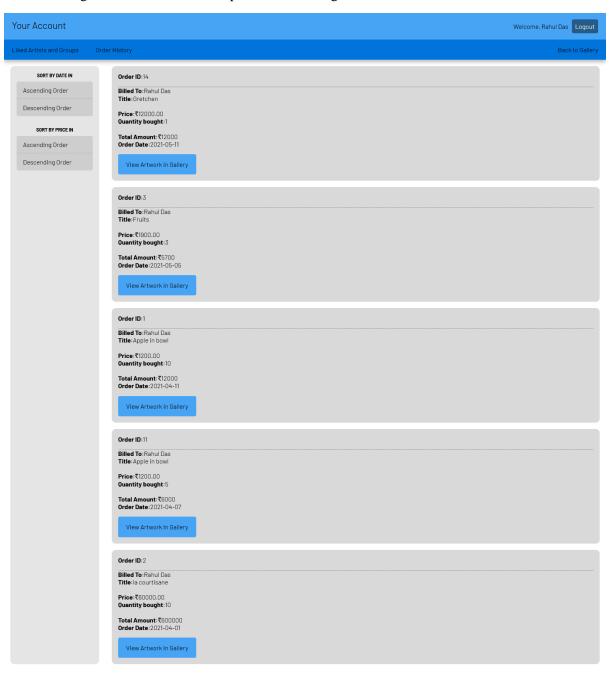


8. View and Form: This page is shown when a customer clicks "Your Account". Shows all liked artists and groups and allows users to remove or add groups and artists as liked. The red cross button removes a preference. The page is updated with every addition and removal.

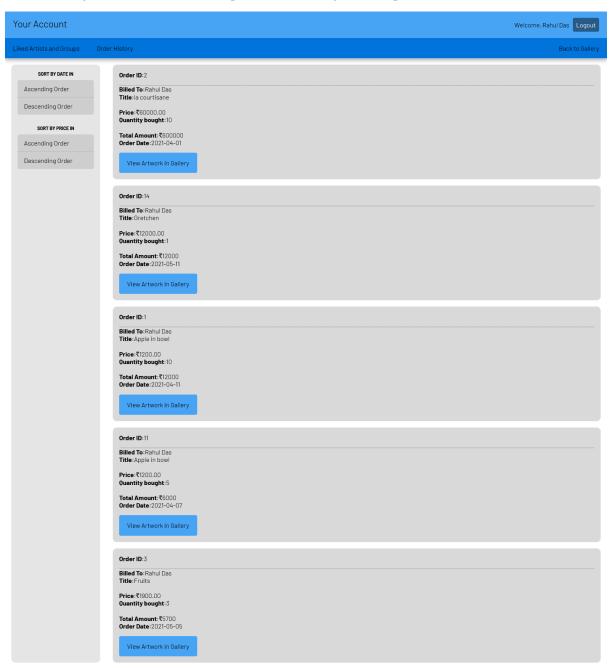


9. Report: Shows all orders placed by the user in ascending or descending order of total price or date, as selected by the user from the sidebar.

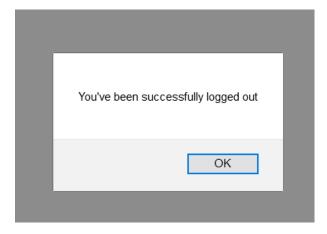
The following screenshot shows the report in descending order of date.



The following screenshot shows the report in descending order of price.

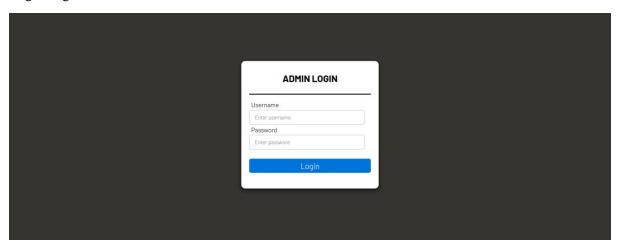


This dialog is shown when the user clicks Log Out Shown when the user logs off.



FOR THE ADMINISTRATOR (ADMIN) PANEL

1. Login Page for Admin Panel:

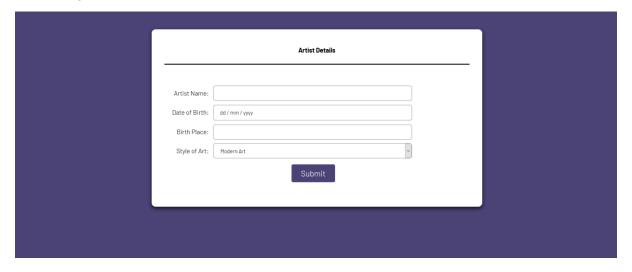


After Successful Admin Login the following page is shown.

2. Page showing all artists in the system. This also allows us to edit and remove artists.

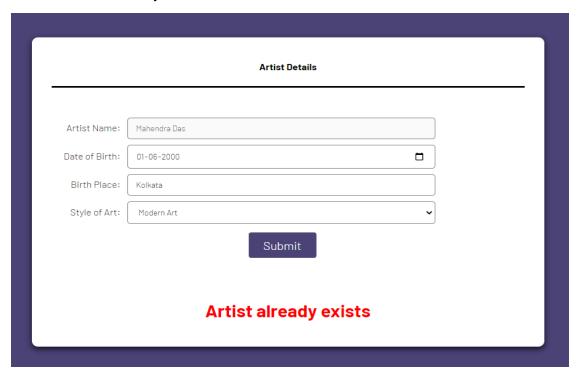


On clicking Add New Artist:

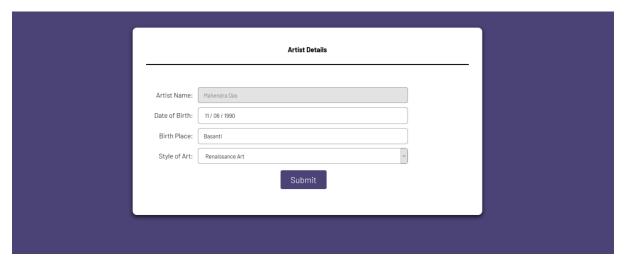


If an artist name does not exist, the artist details are added successfully. If an artist name exists in the artist table it shows an error message as the artist name is the primary key.

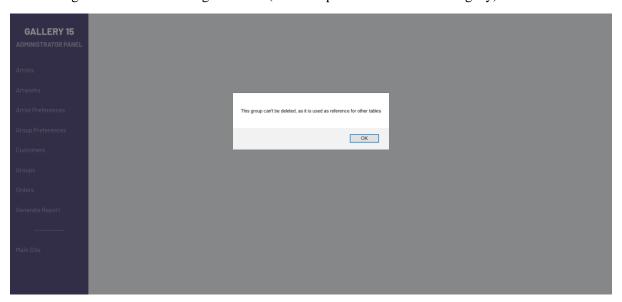
View: When an artist already exists.



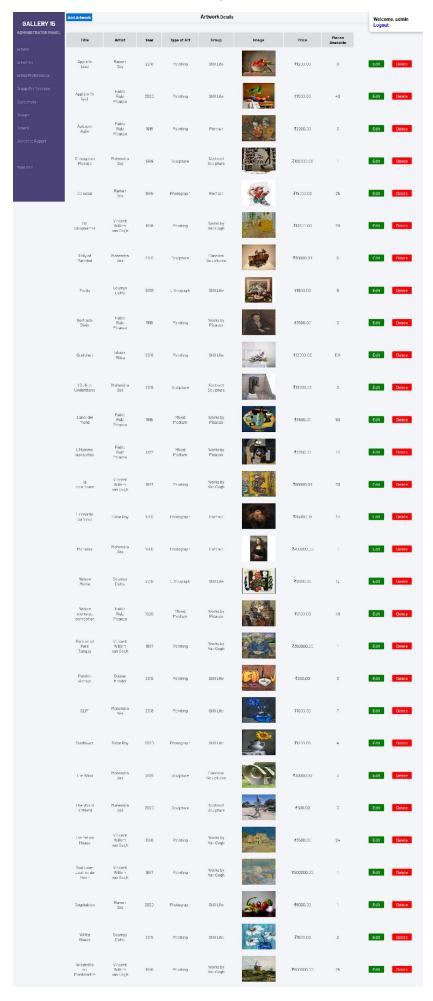
On clicking Edit Existing Artist:(All details of artist can be edited except artist name(primary key).)



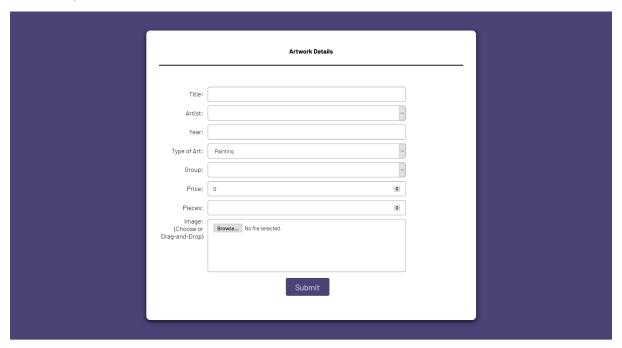
On deleting an artist with existing artworks (this is to preserve referential integrity):



3. Report: This page shows all artworks present in the gallery along with options to add, edit or remove artworks. (The sidebar is fixed and does not move on scrolling. This is not shown in the screenshot)

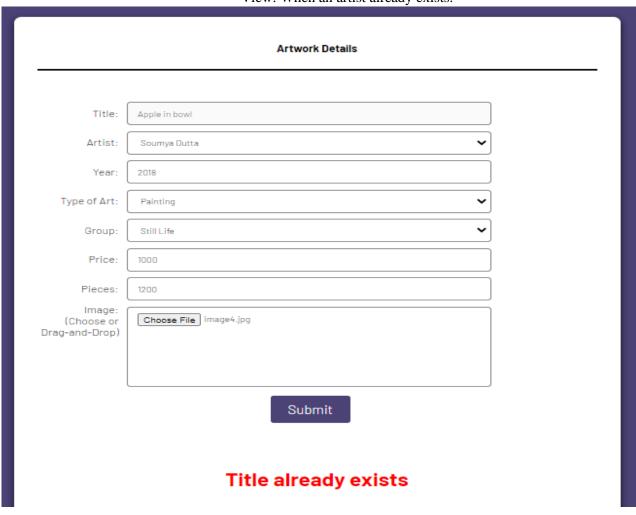


On clicking add artwork:

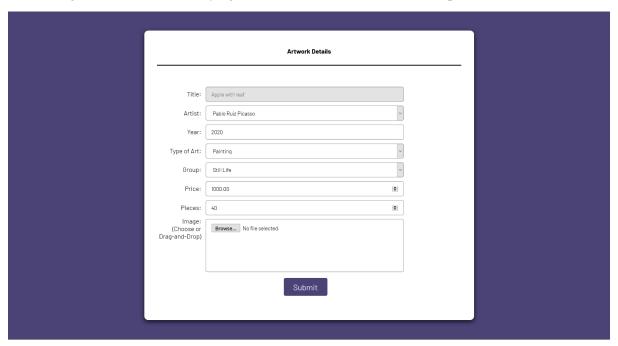


If an artwork title does not exist, the artwork details are added successfully. If an artwork title exists in the artwork table it shows an error message as the artwork title is the primary key.

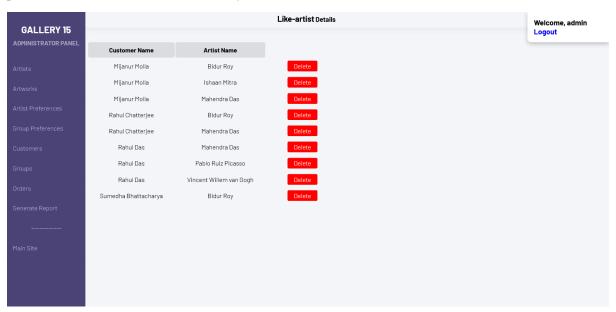
View: When an artist already exists.



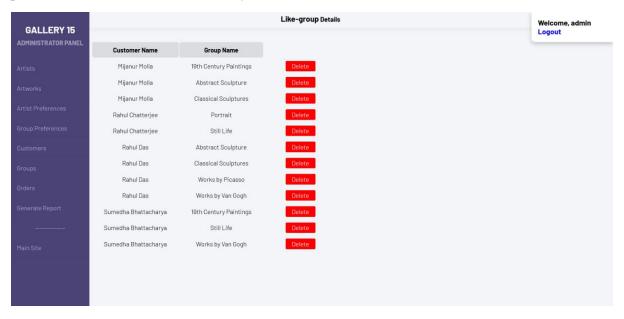
On clicking edit artwork: (While trying to edit all details can be edited except artwork title).



4. Artist Preferences: This page shows customer's artist preferences. Only option to delete the preferences are provided, as the customer has the ability to add or remove items.

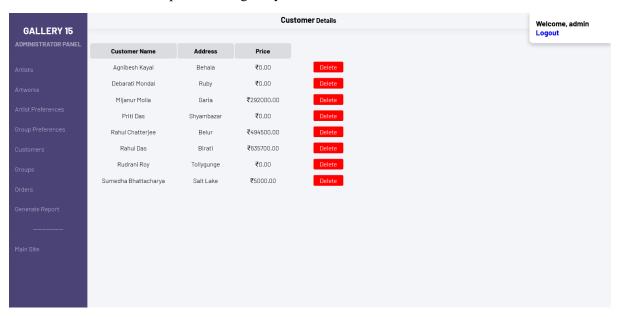


5. Group Preferences: This page shows customer's group preferences. Only option to delete the preferences are provided, as the customer has the ability to add or remove items.



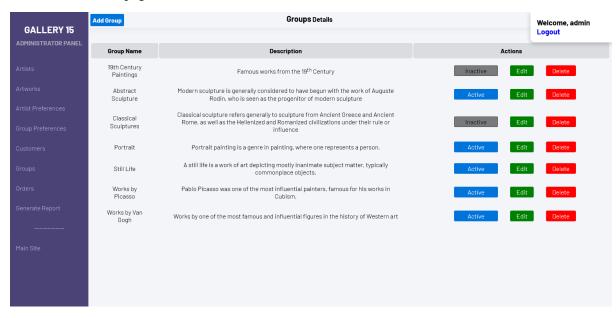
6. Customers: This page shows all of the customers in the gallery. Only customers can change their details, thus only delete is allowed.

When a customer buys an artwork, then the price column of the customer table is updated with the total amount which a customer spent for the gallery.

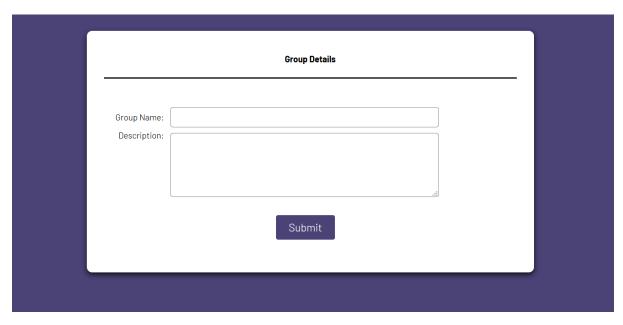


7. All Groups: This page shows all the groups that an artwork can belong to. It also allows us to add, edit or delete groups. There is also an option to mark a group as active or inactive.

(If a group status is active, then it is shown on the homepage side-bar and if status is inactive then it is not shown on the homepage side-bar.)

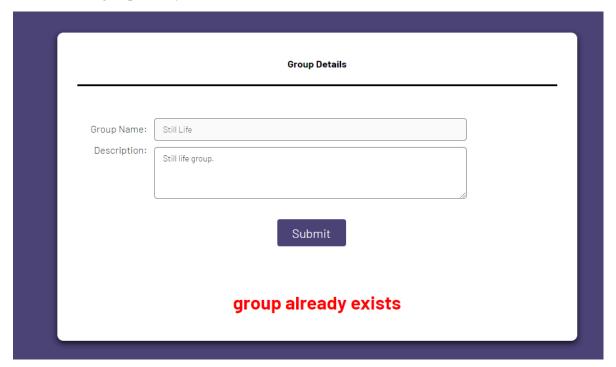


Form to add group: When a new group is added its status is filled automatically as active.

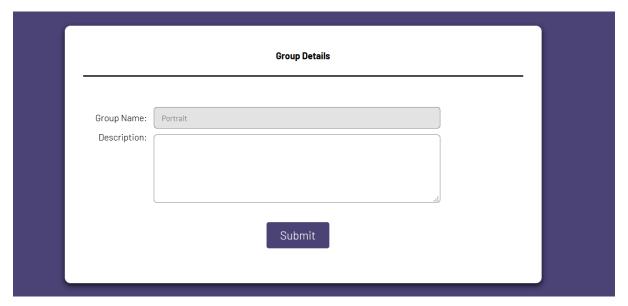


If a group name does not exist, the group details are added successfully. If a group exists in the group table it shows an error message as the group name is the primary key.

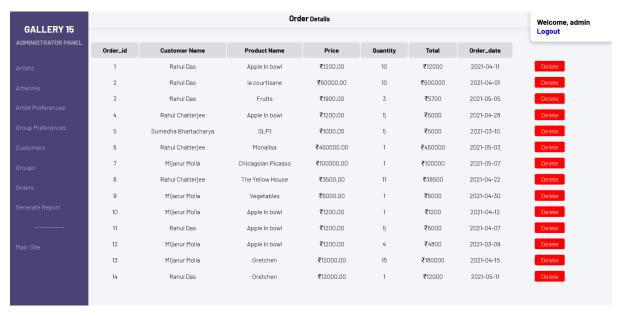
View: When a group already exists.



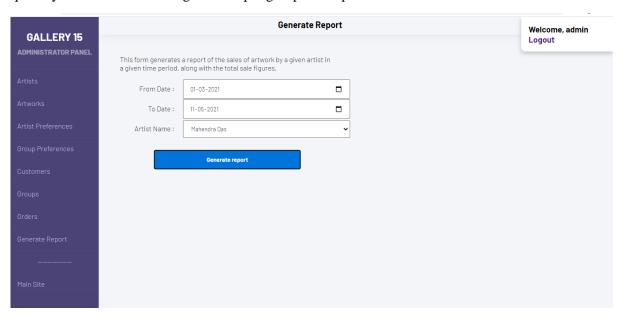
Form to Edit group:



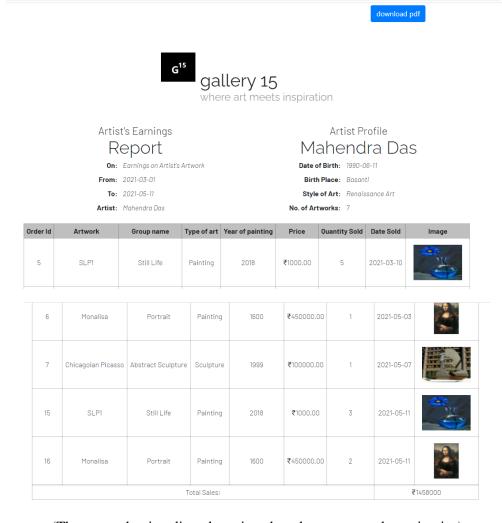
8. Showing all orders by all customers: this page shows all orders placed by the customers. It fetches the details from the relevant tables. The price is stored when the order is placed, so that the order details do not change even if the artwork's current price changes. Option is provided to delete an order.



9. Report Generation Screen: This page takes the information to generate a report of the sales of all artworks by a given artist in a given time period along with total sales figures. It also generates a breakdown of the quantity of art sold and sales generated per group in a separate table.



Screenshot of the generated report: (A pdf of this file is also attached)



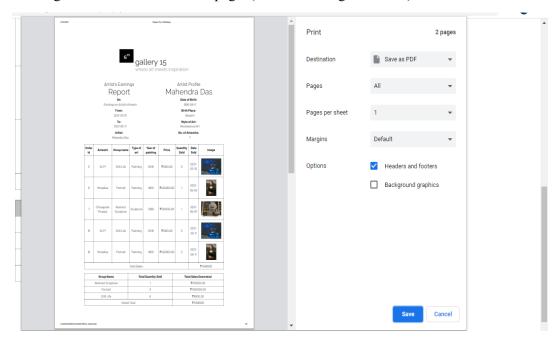
(The screenshot is split and continued on the next page due to its size)

| Group Name | Total Quantity Sold | Total Sales Generated |
|--------------------|---------------------|-----------------------|
| Abstract Sculpture | 1 | ₹100000.00 |
| Portrait | 3 | ₹1350000.00 |
| Still Life | 8 | ₹8000.00 |
| Gran | ₹1458000 | |

Print

download pdf

After clicking "Print" button the shown page: (This is in Google Chrome)



CONTENTS OF THE TABLES IN THE DATABASE

The following screenshots show the contents of the tables in the database, after initial insertion of records. The screenshots were taken from phpMyAdmin's Browse View

1. Table artist

| artist_name | dob | birth_place | style_of_art | age |
|-------------------------|------------|-------------------|-------------------|-----|
| Bidur Roy | 1996-07-11 | Delhi | Pop Art | 25 |
| Ishaan Mitra | 1998-12-11 | Kolkata | Abstract Art | 23 |
| Mahendra Das | 1990-06-11 | Basanti | Renaissance Art | 31 |
| Pablo Ruiz Picasso | 1881-10-25 | Málaga, Andalusia | Abstract Art | 140 |
| Ramen Das | 2000-07-11 | Mumbai | Impressionist Art | 21 |
| Soumya Dutta | 1994-07-11 | Pune | Others | 27 |
| Sourav Mandal | 1996-05-11 | Canning | Modern Art | 25 |
| Vincent Willem van Gogh | 1853-03-30 | Groot-Zundert | Modern Art | 168 |

2. Table Artwork

| Apple in bowl | Ramen Das | 2018 | Painting | Still Life | 42680873_image4.jpg | 1200.00 | 19 |
|---------------------------|----------------------------|------|-----------------|-------------------------|--|--------------------------------|---------------|
| Apple with leaf | Pablo Ruiz Picasso | 2020 | Painting | Still Life | 72878192_image3.jpg | 1000.00 | 40 |
| Au Lapin Agile | Pablo Ruiz Picasso | 1918 | Painting | Portrait | 53555645_P4.jpg | 2200.00 | 3 |
| Chicagoian Picasso | Mahendra Das | 1999 | Sculpture | Abstract Sculpture | 97807869_675px- 2004-09-07_1800x2400_chicago_picass | 100000.00 | 1 |
| Colossal | Ramen Das | 1885 | Photograph | Portrait | 40580619_colossal.jpg | 15000.00 | 25 |
| De Slaapkamer | Vincent Willem van Gogh | 1898 | Painting | Works by Van Gogh | 87831099_1134px-Vincent_van_Gogh _De_slaapkamer | 13500.00 | 20 |
| Folly of Mankind | Mahendra Das | 2015 | Sculpture | Classical Sculptures | 38527560_1200px- John_Chamberlain_at_the_Hirshhorn | 30000.00 | 6 |
| Fruits | Soumya Dutta | 2021 | Lithograph | Still Life | 98789035_Fruits.jpg | 1900.00 | 9 |
| Gertrude Stein | Pablo Ruiz Picasso | 1918 | Painting | Works by Picasso | 16921077_p5.JPG | 3500.00 | 3 |
| Gretchen | Ishaan Mitra | 2018 | Painting | Still Life | 17014465_Gretchen.jpg | 12000.00 | 105 |
| I Do Not Understand | Mahendra Das | 2018 | Sculpture | Abstract Sculpture | 98994121 675px-104 0422.JPG Bookma | 10000.00 arks Options Histo | 3 ory Clea |
| query | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | Gogh | | - | Gogh | | | |
| Leonardo Da Vinci | Bidur Roy | 1650 | Photograph | Portrait | 67650210_oldman.jpg | 85000.00 | 10 |
| Monalisa | Mahendra Das | 1600 | Photograph | Portrait | 73948691_monalisa.jpg | 450000.00 | 1 |
| Nature Morte | Soumya Dutta | 2018 | Lithograph | Still Life | 53931186_lithograph1.jpg | 2000.00 | 12 |
| Nature morte au compotier | Pablo Ruiz Picasso | 1920 | Mixed Medium | Works by Picasso | 19554649_P2.jpg | 2100.00 | 40 |
| Portrait of Pere Tanguy | Vincent Willem van Gogh | 1887 | Painting | Works by Van Gogh | 39766195_714px-Van_Gogh _Portrait_of_Pere_Tanguy | 350000.00 | 1 |
| Pumkin vintage | Sourav Mandal | 2015 | Painting | Still Life | 24923396_Pumkin vintage.jpg | 200.00 | 3 |
| SLP1 | Mahendra Das | 2018 | Painting | Still Life | 98246710_image1.jpg | 1000.00 | 7 |
| Sunflower | Bidur Roy | 2020 | Photograph | Still Life | 24452252_Sunflower.jpg | 1200.00 | 4 |
| The Wind | Mahendra Das | 2021 | Sculpture | Classical Sculptures | 91678203_1200px-Henry_Moore_Double_Oval.jpg | 30000.00 | 3 |
| The World is Wierd | Mahendra Das | 2020 | Sculpture | Abstract Sculpture | 76216589_675px-SMITH_CUBI_VI.JPG | 500.00 | 3 |
| | | | | | | | |

3. Table customers:

The amount is automatically increased by order total by the query whenever an order is placed.

| customer_name | password | address | amount |
|----------------------|---------------------------|------------|-----------|
| Agnibesh Kayal | iamagnibesh | Behala | 0.00 |
| Debarati Mondal | debu | Ruby | 0.00 |
| Mijanur Molla | mijanur@12345 | Garia | 292000.00 |
| Priti Das | pritidas | Shyambazar | 0.00 |
| Rahul Chatterjee | correcthorsebatterystaple | Belur | 494500.00 |
| Rahul Das | password123 | Birati | 623700.00 |
| Rudrani Roy | aktapassword | Tollygunge | 0.00 |
| Sumedha Bhattacharya | 12345 | Salt Lake | 5000.00 |

4. Table groups

The column status is used to mark active (1) or inactive(0) groups. Inactive groups are not shown in the sidebar of the art gallery.

| group_name | description | status |
|------------------------|--|--------|
| 19th Century Paintings | Famous works from the 19 th Century | 0 |
| Abstract Sculpture | Modern sculpture is generally considered to have b | 1 |
| Classical Sculptures | Classical sculpture refers generally to sculpture | 0 |
| Portrait | Portrait painting is a genre in painting, where on | 1 |
| Still Life | A still life is a work of art depicting mostly ina | 1 |
| Works by Picasso | Pablo Picasso was one of the most influential pain | 1 |
| Works by Van Gogh | Works by one of the most famous and influential fi | 1 |

5. Table like_artist

| customer_name | artist_name |
|----------------------|-------------------------|
| Mijanur Molla | Bidur Roy |
| Mijanur Molla | Ishaan Mitra |
| Mijanur Molla | Mahendra Das |
| Rahul Chatterjee | Bidur Roy |
| Rahul Chatterjee | Mahendra Das |
| Rahul Das | Mahendra Das |
| Rahul Das | Pablo Ruiz Picasso |
| Rahul Das | Vincent Willem van Gogh |
| Sumedha Bhattacharya | Bidur Roy |

6. Table like_group

| customer_name | group_name |
|----------------------|------------------------|
| Mijanur Molla | 19th Century Paintings |
| Mijanur Molla | Abstract Sculpture |
| Mijanur Molla | Classical Sculptures |
| Rahul Chatterjee | Portrait |
| Rahul Chatterjee | Still Life |
| Rahul Das | Abstract Sculpture |
| Rahul Das | Classical Sculptures |
| Rahul Das | Works by Picasso |
| Rahul Das | Works by Van Gogh |
| Sumedha Bhattacharya | 19th Century Paintings |
| Sumedha Bhattacharya | Still Life |
| Sumedha Bhattacharya | Works by Van Gogh |

7. Table orders:

The column price_bought_at stores the price of an artwork, this is to ensure that the bill details do not change if the artwork's price is changed in table artwork (say, due to increased demand).

| order_id | customer_name | title | qty | order_date | price_bought_at |
|----------|----------------------|--------------------|-----|------------|-----------------|
| 1 | Rahul Das | Apple in bowl | 10 | 2021-04-11 | 1200.00 |
| 2 | Rahul Das | la courtisane | 10 | 2021-04-01 | 60000.00 |
| 3 | Rahul Das | Fruits | 3 | 2021-05-05 | 1900.00 |
| 4 | Rahul Chatterjee | Apple in bowl | 5 | 2021-04-28 | 1200.00 |
| 5 | Sumedha Bhattacharya | SLP1 | 5 | 2021-03-10 | 1000.00 |
| 6 | Rahul Chatterjee | Monalisa | 1 | 2021-05-03 | 450000.00 |
| 7 | Mijanur Molla | Chicagoian Picasso | 1 | 2021-05-07 | 100000.00 |
| 8 | Rahul Chatterjee | The Yellow House | 11 | 2021-04-22 | 3500.00 |
| 9 | Mijanur Molla | Vegetables | 1 | 2021-04-30 | 6000.00 |
| 10 | Mijanur Molla | Apple in bowl | 1 | 2021-04-12 | 1200.00 |
| 11 | Rahul Das | Apple in bowl | 5 | 2021-04-07 | 1200.00 |
| 12 | Mijanur Molla | Apple in bowl | 4 | 2021-03-09 | 1200.00 |
| 13 | Mijanur Molla | Gretchen | 15 | 2021-04-15 | 12000.00 |

8. Table users:

This table is used only for logging into the Administrator panel. It stores the login credentials of the administrators of the system, and compared to hard-coding the administrator password, allows for easy changing as well as allowing the presence of more than one administrator.

| username | password |
|----------|------------|
| admin | adminsOnly |

TABLE CREATION SCHEMA

The following screenshots show the SQL queries required to create the different tables, as reported by the SQL command in MariaDB: show create table `tablename`.

1. Table Artist:

2. Table Artwork:

3. Table groups:

4. Table customer:

5. Table like_artist:

6. Table like_group:

7. Table orders:

8. Table users:

This concludes the end of the screenshots of the implementation.