



Case Study:-Art Gallery Exhibit Management App



Student Information

Name: Pratik Kumar Swain

Roll No: 150096725184

Batch: Sam Altman

Course: BTech – Computer Science and Engineering (CSE)

Subject: No Code and Google Sheets

Semester: I

Sprint: 2

Academic Year: 2025–2029



2. Background

The gallery relies on disconnected spreadsheets, making it difficult to track inventory, artist details, and sales status in real-time. A No-Code solution is needed to digitalise and automate these operations.



3. Objective

The primary objective of this project is to develop an automated Art Gallery Exhibit Management App using the AppSheet platform.

Specific Goals:

- 📌 **Centralize Data:** Create a relational database for Artworks, Artists, and Exhibits.
- 📌 **User Experience:** Design specific interfaces for viewing inventory and dashboard analytics.
- 📌 **Data Logic:** Implement "Slices" to filter data dynamically (e.g., Available vs. Sold).
- 📌 **Interactivity:** Add action buttons for quick communication and status updates.
- 📌 **Automation:** Implement email triggers to streamline the curator's workflow.

4. Development of App (AppSheet Implementation)

A. Data Source Setup

The application is built on top of CS35 – Art Gallery Exhibit Management App.xlsx. The tables identified and connected are:

- **Artworks Table:** Contains Artwork ID, Name, Artist, Price, Category, Status, Image.
- **Artists Table:** Contains Name, Phone Number, Email, Bio.
- **Exhibits Table:** Contains Exhibit details and dates.

B. User Experience (Views & Dashboard)

To facilitate easy navigation, the following views were created:

- **Artworks View:** A "Deck" or "Card" view displaying image and price.
- **Artists View:** A list view containing artist contact details.
- **Exhibits View:** A calendar or table view of upcoming exhibitions.
- **Manager Dashboard:** An interactive dashboard combining:
 - **Chart:** Artwork by Category (Histogram/Pie Chart).
 - **Chart:** Count of Available Pieces.
 - **Chart:** Count of Sold Items.

C. Data Slices (Logic Implementation)

Slices were created to filter data without altering the source spreadsheet:

Slice Name	Row Filter Condition	Purpose
AvailableArtSlice	[Status]="Available"	Shows only items purchasable.
SoldArtSlice	[Status]="Sold"	Historical record of sales.
PaintingCategorySlice	[Category]="Painting"	Specific view for paintings.

D. Actions & Behavior

Action buttons were created to enhance app functionality:

- Call Artist: An implementation of the App: Go to a phone number behaviour targeting the [Phone] column.
- Mark Artwork Sold: A Data: Set the values of some columns in this row action changing [Status] to "Sold".
- Add Exhibit Entry: A navigation action to the Exhibits form.
- Add Artwork: A primary overlay action to open the "New Artwork" form.

E. Format Rules (UI Customization)

Visual indicators were applied using conditional formatting:

1. Sold Pieces: If [Status]="Sold", the text/icon turns Green.
2. High-Value Art: If [Price] > 50000 AND [Status]="Sold", the text is bolded/highlighted.
3. Sculptures: If [Category]="Sculpture", the entry is highlighted Blue.

F. Automation (Bot & Processes)

- Trigger: Adds (When a new record is added, deleted or edited to the Artworks table).
- Task: Send an Email.
- Recipient: Curator's Email Address.
- Content: "A new artwork [Artwork Name] by [Artist] has been added to the inventory."

5. App Interface

Preview of your app

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Art Gallery Exhibit Management

Search Artworks

+ Add P

Artworks	432,500 Available	35,000 Available	37,500 Available	40,000 Sold*
A001 Artwork 1 Sculpture* SOLD	A002 Artwork 2 Photograph SOLD	A003 Artwork 3 Painting SOLD	A004 Artwork 4 Sculpture* AVAILABLE	
42,500 Available	45,000 Available	47,500 Available	50,000 Sold*	
A005 Artwork 5 Photograph SOLD	A006 Artwork 6 Painting SOLD	A007 Artwork 7 Sculpture* SOLD	A008 Artwork 8 Photograph AVAILABLE	
52,500 Available	55,000 Available	57,500 Available	60,000* Sold*	
A009 Artwork 9	A010 Artwork 10	A011 Artwork 11	A012 Artwork 12	

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Art Gallery Exhibit Management

Search Artworks

+ Add P

Artworks	A009 Artwork 9 Painting SOLD	A010 Artwork 10 Sculpture* SOLD	A011 Artwork 11 Photograph SOLD	A012 Artwork 12 Painting AVAILABLE
62,500 Available	65,000 Available	67,500 Available	70,000* Sold*	
A013 Artwork 13 Sculpture* SOLD	A014 Artwork 14 Photograph SOLD	A015 Artwork 15 Painting SOLD	A016 Artwork 16 Sculpture* AVAILABLE	
72,500 Available	75,000 Available	77,500 Available	80,000* Sold*	
A017 Artwork 17 Photograph SOLD	A018 Artwork 18 Painting SOLD	A019 Artwork 19 Sculpture* SOLD	A020 Artwork 20 Photograph AVAILABLE	

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Art Gallery Exhibit Management

Search Artists

+ Add P

Artists

Title goes here 9876000001	Title goes here 9876000002	Title goes here 9876000003	Title goes here 9876000004
Artist 1 AR001 City 2 ADD TEXT MESSAGE D E	Artist 2 AR002 City 3 ADD TEXT MESSAGE D E	Artist 3 AR003 City 4 ADD TEXT MESSAGE D E	Artist 4 AR004 City 5 ADD TEXT MESSAGE D E
Title goes here 9876000005	Title goes here 9876000006	Title goes here 9876000007	Title goes here 9876000008
Artist 5 AR005 City 1 ADD TEXT MESSAGE D E	Artist 6 AR006 City 2 ADD TEXT MESSAGE D E	Artist 7 AR007 City 3 ADD TEXT MESSAGE D E	Artist 8 AR008 City 4 ADD TEXT MESSAGE D E
Title goes here 9876000009	Title goes here 9876000010	Title goes here 9876000011	Title goes here 9876000012
Artist 9 AR009 City 5 ADD TEXT MESSAGE D E	Artist 10 AR010 City 1 ADD TEXT MESSAGE D E	Artist 11 AR011 City 2 ADD TEXT MESSAGE D E	Artist 12 AR012 City 3 ADD TEXT MESSAGE D E

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Art Gallery Exhibit Management

Search Artists

+ Add P

Artists

Artist 9 AR009 City 5 ADD TEXT MESSAGE D E	Artist 10 AR010 City 1 ADD TEXT MESSAGE D E	Artist 11 AR011 City 2 ADD TEXT MESSAGE D E	Artist 12 AR012 City 3 ADD TEXT MESSAGE D E
Title goes here 9876000013	Title goes here 9876000014	Title goes here 9876000015	Title goes here 9876000016
Artist 13 AR013 City 4 ADD TEXT MESSAGE D E	Artist 14 AR014 City 5 ADD TEXT MESSAGE D E	Artist 15 AR015 City 1 ADD TEXT MESSAGE D E	Artist 16 AR016 City 2 ADD TEXT MESSAGE D E
Title goes here 9876000017	Title goes here 9876000018	Title goes here 9876000019	Title goes here 9876000020
Artist 17 AR017 City 3 ADD TEXT MESSAGE D E	Artist 18 AR018 City 4 ADD TEXT MESSAGE D E	Artist 19 AR019 City 5 ADD TEXT MESSAGE D E	Artist 20 AR020 City 1 ADD TEXT MESSAGE D E

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Art Gallery Exhibit Management

Search Exhibit

+ Add P

Exhibit			
Displayed Gallery Hall 2	Stored Gallery Hall 3	Displayed Gallery Hall 1	Stored Gallery Hall 2
E001 A001 02/02/2025	E002 A002 03/02/2025	E003 A003 04/02/2025	E004 A004 05/02/2025
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE
Displayed Gallery Hall 3	Stored Gallery Hall 1	Displayed Gallery Hall 2	Stored Gallery Hall 3
E005 A005 06/02/2025	E006 A006 07/02/2025	E007 A007 08/02/2025	E008 A008 09/02/2025
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE
Displayed Gallery Hall 1	Stored Gallery Hall 2	Displayed Gallery Hall 3	Stored Gallery Hall 1
E009 A009	E010 A010	E011 A011	E012 A012
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE

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Art Gallery Exhibit Management

Search Exhibit

+ Add P

Exhibit			
E009 A009 10/02/2025	E010 A010 11/02/2025	E011 A011 12/02/2025	E012 A012 13/02/2025
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE
Displayed Gallery Hall 2	Stored Gallery Hall 3	Displayed Gallery Hall 1	Stored Gallery Hall 2
E013 A013 14/02/2025	E014 A014 15/02/2025	E015 A015 16/02/2025	E016 A016 17/02/2025
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE
Displayed Gallery Hall 3	Stored Gallery Hall 1	Displayed Gallery Hall 2	Stored Gallery Hall 3
E017 A017 18/02/2025	E018 A018 19/02/2025	E019 A019 20/02/2025	E020 A020 21/02/2025
ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE	ADD EDIT DELETE

Preview of your app

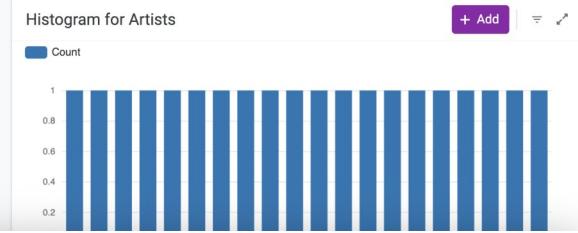
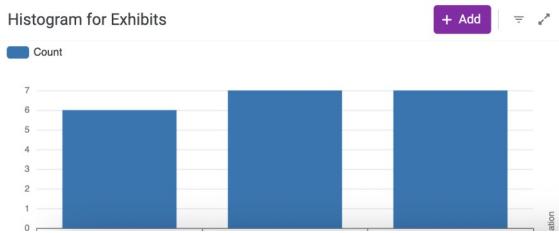
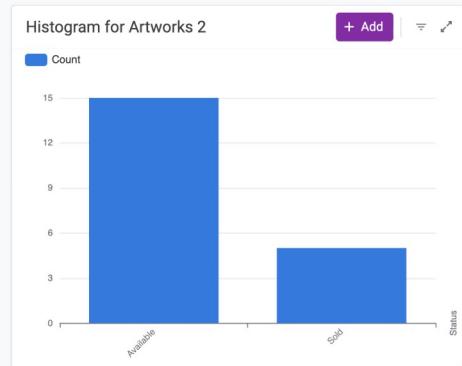
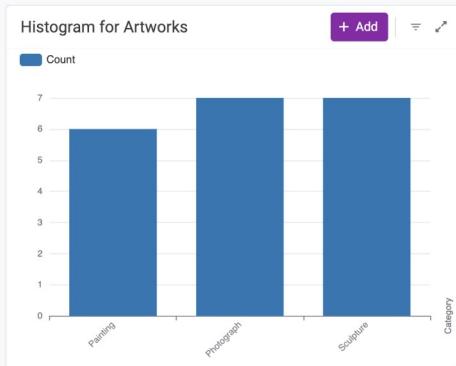
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Art Gallery Exhibit Management

Search Dashboard

Dashboard



Preview of your app

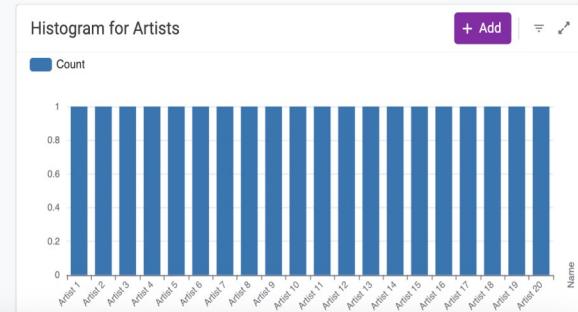
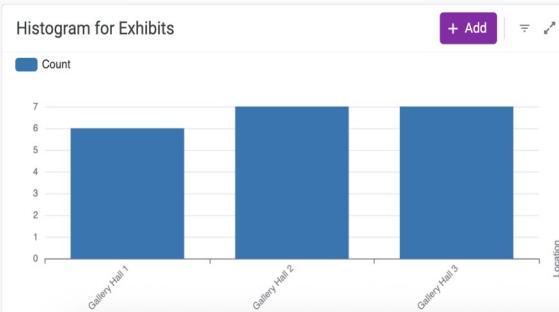
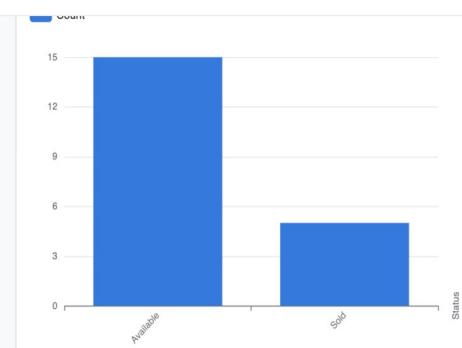
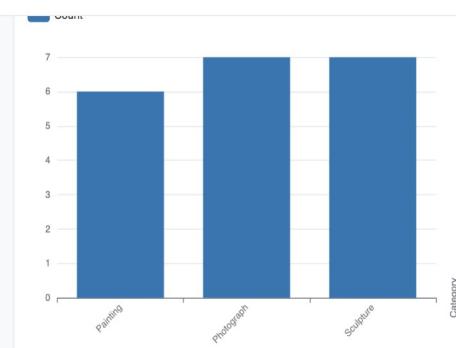
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Art Gallery Exhibit Management

Search Dashboard

Dashboard



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Art Gallery Exhibit Management

Search Artworks

Artworks			
A013 Artwork 13 Sculpture* SOLD	A014 Artwork 14 Photograph SOLD	A015 Artwork 15 Painting SOLD	A016 Artwork 16 Sculpture* AVAILABLE
72,500 Available	75,000 Available	77,500 Available	80,000* Sold*
A017 Artwork 17 Photograph SOLD	A018 Artwork 18 Painting SOLD	A019 Artwork 19 Sculpture* SOLD	A020 Artwork 20 Photograph AVAILABLE
45,000 Available			
A021 Artwork 21 Painting SOLD			

Gmail

Compose

Inbox 600

Starred
Snoozed
Sent
Drafts 2
Purchases 1
More

Labels +

Search mail

Artwork21 Inbox x

pratikswain070@gmail.com <noreply@appsheet.com> 9:11 AM (0 minutes ago) Star Smile Reply Forward More

[App version 1.000023 is not deployed. All emails are therefore being sent to the app creator. This email should have gone To 'pratikswain070@gmail.com' CC'ed to " and BCC'ed to "] [The account is free. All emails are therefore being sent to the app creator. This email should have gone To 'pratikswain070@gmail.com' CC'ed to " and BCC'ed to "]

ArtworkID: A021
Title: Artwork21
Category: Painting
Price: 45,000
Status: Available

Sent from AppSheet

Reply Forward Smile

6. Use of the App

- Entry: Admin adds artwork; Curator gets an auto-email.
- Browsing: Users view "Available" slices to check stock.
- Sales: Clicking "Mark Sold" updates the status and highlights the row green.
- Analytics: Management views the dashboard for real-time sales count.

7. Analysis

The app replaces manual entry with automated workflows. Slices prevent selling the same item twice, and the Dashboard provides instant visual feedback on gallery performance, significantly reducing administrative time.

8. Conclusion

Case Study demonstrates that AppSheet can successfully transform a static spreadsheet into a dynamic management tool. The app fulfills all requirements—inventory tracking, sales visualization, and automated alerts—without writing complex code.