

Community Art Exhibit Platform

November 2, 2025

Use Case Model (Textual Description)

This document describes the use-case model for the **Community Art Exhibit Platform**. The platform lets *artists* manage their profile, artworks, and exhibitions; *participants* discover exhibitions and register; an *organizer* controls capacity, approvals, and admissions; a *sponsor* can view reports; and a third-party *payment system* handles online payments.

System Scope

Public browsing (artworks, map, calendar) is open to everyone. Actions that change data (e.g., managing profile, artworks, exhibitions; approvals; admissions) require authentication.

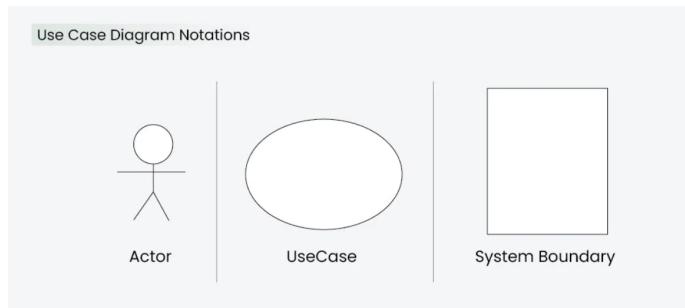


Figure 1: Use case diagram notation

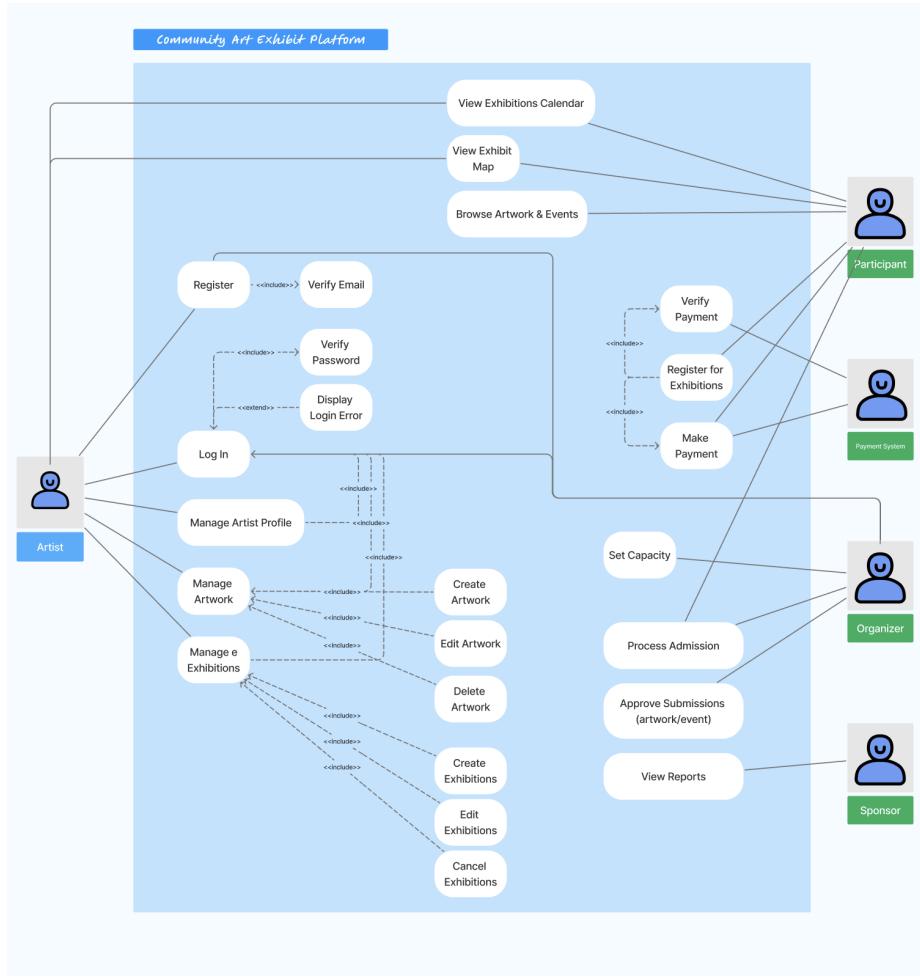


Figure 2: diagram

Actors

- **Artist** (primary): creates and maintains profile, artworks, and exhibitions.
 - **Participant**: browses content and registers for exhibitions.
 - **Organizer**: approves submissions, sets capacity, and processes admissions.
 - **Sponsor**: views sponsorship/performance reports.
 - **Payment System** (external): payment gateway (e.g., Stripe/PayPal) used to create and verify payments.

Global Includes/Extends

- **Register** <<include>> **Verify Email**.
- **Log In** <<include>> **Verify Password**.
- **Log In** <<extend>> **Display Login Error** (invalid credentials).
- Auth-protected actions <<include>> **Log In**: Manage Artist Profile, Manage Artwork, Create/Edit/Delete Artwork, Manage Exhibitions, Create/Edit/Cancel Exhibitions, Approve Submissions, Set Capacity, Process Admission, View Reports.
- **Register for Exhibitions** <<include>> **Make Payment** and **Verify Payment**.

Use Cases

UC1 - Browse Artwork & Events *Actors:* Participant (also Artist). *Goal:* Discover artworks and upcoming exhibitions. *Preconditions:* None. *Main Success Scenario:*

1. User opens the gallery and/or list of exhibitions.
2. System supports search, filter, and sorting; user opens details.

Postconditions: None (read-only).

UC2 - View Exhibit Map *Actors:* Participant (also Artist). *Goal:* See exhibition locations on an interactive map. *Preconditions:* Exhibitions have location data (address/lat/lng). *Main Success Scenario:* Map displays markers; user opens a marker for details.

UC3 - View Exhibitions Calendar *Actors:* Participant (also Artist). *Goal:* View upcoming exhibitions on a calendar. *Preconditions:* Exhibitions have start/end dates. *Main Success Scenario:* Calendar shows entries; user can open details.

UC4 - Register *Actor:* Artist. *Includes:* Verify Email. *Goal:* Create a new artist account. *Main Success Scenario:*

1. Artist submits name, email, password.
2. System creates a pending account and sends a verification email.
3. Artist confirms via link; account becomes active.

Extensions: Email in use; weak password.

UC4a - Verify Email *Actor:* Artist. *Goal:* Confirm email ownership via token/link; activate account.

UC5 - Log In *Actor:* Artist. *Includes:* Verify Password. *Extends:* Display Login Error. *Goal:* Start an authenticated session. *Main Success Scenario:* Credentials are valid; session established.

UC5a - Verify Password *Actor:* System. *Goal:* Validate submitted password against stored hash with rate limits.

UC5b - Display Login Error *Actor:* System. *Goal:* Show a generic error when authentication fails.

UC6 - Manage Artist Profile *Actor:* Artist. *Precondition:* Log In. *Goal:* View and edit profile (bio, avatar, social links). *Main Success Scenario:* Artist updates fields; system validates and saves.

UC7 - Manage Artwork *Actor:* Artist. *Precondition:* Log In. *Includes:* Create Artwork, Edit Artwork, Delete Artwork. *Goal:* Maintain the artist's artworks.

UC7a - Create Artwork *Actor:* Artist. *Precondition:* Log In. *Goal:* Add a new artwork with title/description/type and media upload. *Extensions:* Invalid file type/size; missing required fields.

UC7b - Edit Artwork *Actor:* Artist. *Precondition:* Log In; ownership verified. *Goal:* Update artwork metadata/media.

UC7c - Delete Artwork *Actor:* Artist. *Precondition:* Log In; ownership verified. *Goal:* Remove artwork from public view (soft delete or archive).

UC8 - Manage Exhibitions *Actor:* Artist. *Precondition:* Log In. *Includes:* Create Exhibitions, Edit Exhibitions, Cancel Exhibitions. *Goal:* Maintain the artist's exhibitions.

UC8a - Create Exhibitions *Actor:* Artist. *Precondition:* Log In. *Goal:* Create an exhibition with title, description, schedule, and location; optionally attach artworks.

UC8b - Edit Exhibitions *Actor:* Artist. *Precondition:* Log In; ownership verified. *Goal:* Modify exhibition details; notify followers/registrants if needed.

UC8c - Cancel Exhibitions *Actor:* Artist. *Precondition:* Log In; ownership verified. *Goal:* Cancel an upcoming exhibition; system marks as cancelled and sends notifications.

UC9 - Register for Exhibitions *Actor:* Participant. *Includes:* Make Payment, Verify Payment. *Goal:* Reserve a spot for an exhibition. *Preconditions:* Exhibition is open for registration and capacity not exceeded. *Main Success Scenario:*

1. Participant selects exhibition and ticket/quantity.
2. System creates a registration in pending status.
3. <<include>> Make Payment: participant completes payment via payment system.
4. <<include>> Verify Payment: system confirms success and marks registration as paid/confirmed.

Extensions: Payment fails/abandoned (registration remains pending/failed); capacity reached (waitlist/unavailable).

UC9a - Make Payment *Actors:* Participant and Payment System. *Goal:* Collect payment via hosted checkout or embedded form; return immediate status.

UC9b - Verify Payment *Actor:* Payment System (webhook). *Goal:* Send final payment status; system verifies signature and updates registration/payment records.

UC10 - Set Capacity *Actor:* Organizer. *Precondition:* Log In. *Goal:* Define or change capacity/limits for an exhibition; system enforces limits during registration.

UC11 - Approve Submissions (artwork/event) *Actor:* Organizer. *Precondition:* Log In. *Goal:* Approve or reject new artworks and exhibitions before publication.

UC12 - Process Admission *Actor:* Organizer. *Precondition:* Log In; participant has a registration. *Goal:* Check in attendees at the venue (e.g., by code/QR); system records admission and prevents reuse.

UC13 - View Reports *Actor:* Sponsor (and optionally Organizer). *Precondition:* Log In (for non-public reports). *Goal:* View performance/visibility metrics for sponsored events or campaigns.