Screen Sketches

Team: 2_jubair_2

Project: IMP3

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Actors and Functionalities

1. **Viewers**: Have the privilege to:

   - Create an account and log in
   - Follow and unfollow other users
   - View other users' profiles and posts
   - Like, comment, or review albums/songs
   - Receive notifications for follows, likes, and comments

2. **Artists**: Have the same privileges are users, in addition to:

   - Upload and publish their own songs or albums,
   - Edit or delete their own content
   - Manage song/album metadata (titles, descriptions, genres, etc.,)
   - Respond to user reviews

3. **Administrators**: Allowed to manage platform-level functionality:

   - Reviewing and approving new song or album uploads before publication
   - Removing inappropriate or infringing content
   - Suspending or deleting users who violate community guidelines
   - Managing reported reviews and feedback

Non-Functional Requirements
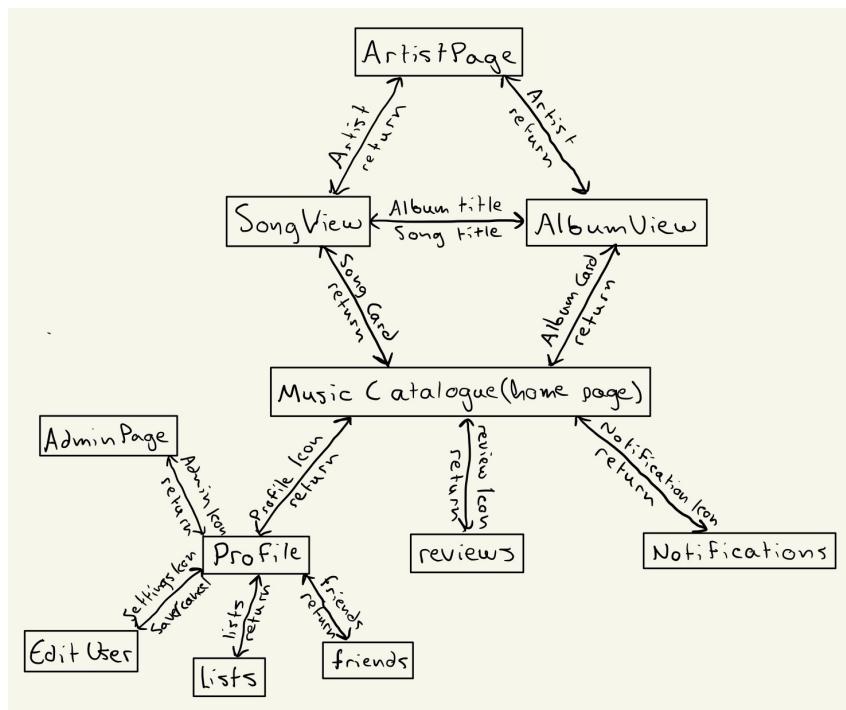
- **Performance**: The system should respond to user interactions and load core content (such as profiles and albums) without noticeable delay.

- **Concurrency**: The application should allow multiple users to perform actions (such as posting reviews or following others) simultaneously without conflicts or slowdowns.

- **Reliability**: The system should remain available and stable, with minimal downtime or unexpected errors during normal use.

- **Security**: User credentials and private data must be stored securely and protected from unauthorized access.

- **Compatibility**: The application should function properly on modern desktop and mobile browsers, including Chrome and Firefox.

Data Model (Tables & Fields)

- **User:** Tracks information related to a user's account.

  - User Id - Primary Key
  - Email - Unique, required
  - Password - Required (stored hashed, write-only)
  - Picture - Optional profile picture (default: assets/profilepic.png)
  - Firstname - Optional
  - Lastname - Optional
  - Bio - Optional user bio

- **Follows:** Records relationships between users when one user follows another.

  - Follower Id - Foreign key to User table (the user who follows)
  - Followed Id - Foreign key to User table (the user being followed)
  - FollowedAt - Timestamp when the follow occurred (auto-generated)
  - *Primary Key:* (Follower Id, Followed Id)

- **Reviews:** Stores user-submitted ratings and feedback for albums or songs.

  - Review Id - Primary Key
  - User Id – Foreign Key to User table
  - Album Id – Foreign Key to Album table
  - Song Id – Optional Foreign Key to Song table
  - Rating – Required integer rating
  - Review – Optional text review

- **Music Catalog:** Store and organize music by artist, album, and track.

  - Artist Table
    * Artist Id - Primary Key
    * Artist Name - Unique, Required, String
    * Albums - Optional, list of Album Id
    * Singles - Optional, list of Track Id
    * Bio - Optional, String
    * Years Active - Optional, list of Integer
  - Album Table
    * Album Id - Primary Key
    * Album Name - Required, String
    * Artist - Required, Artist Id
    * Tracks - Required, list of Track Id
    * Year Released - Optional, Integer
    * Runtime - Optional, Integer
    * Description - Optional, String
  - Track Table
    * Track Id - Primary Key
    * Artist - Required, Artist Id
    * Album - Required, Album Id
    * Length - Optional, Integer
    * Year Released - Optional, Integer

- **Notifications:** Stores alerts generated when one user interacts with another user or their content.

  - Notification Id - Primary Key

- Recipient Id - Foreign Key to User table
- Actor Id - Foreign Key to User table (the user who triggered the notification)
- Type - Type of notification (e.g., follow, comment, like)
- Message - Notification text
- CreatedAt - Timestamp of creation
- ReadAt - Timestamp when notification was read (nullable)

- **Lists:** Stores user-created collections of songs or albums (e.g., playlists, "currently listening to", etc.,)
  - List Id - Primary key
  - User Id - Foreign key to User (owner of the list)
  - Title - Name of the list (required)
  - Description - Optional short description
  - CoverImage - Optional image associated with the list (string path or URL)
  - CreatedAt - Timestamp of creation (auto-generated)
  - updatedAt - Timestamp of last modification
  - Privacy - ENUM(public, private) to control visibility

- **Chat:** Allows real-time communication via text between users.
  - Message Id - Primary Key
  - Sender - Required, User Id
  - Receiver - Required, User Id
  - Message - Required, String
 - Timestamp - Required, Integer

Screen Flow Diagram
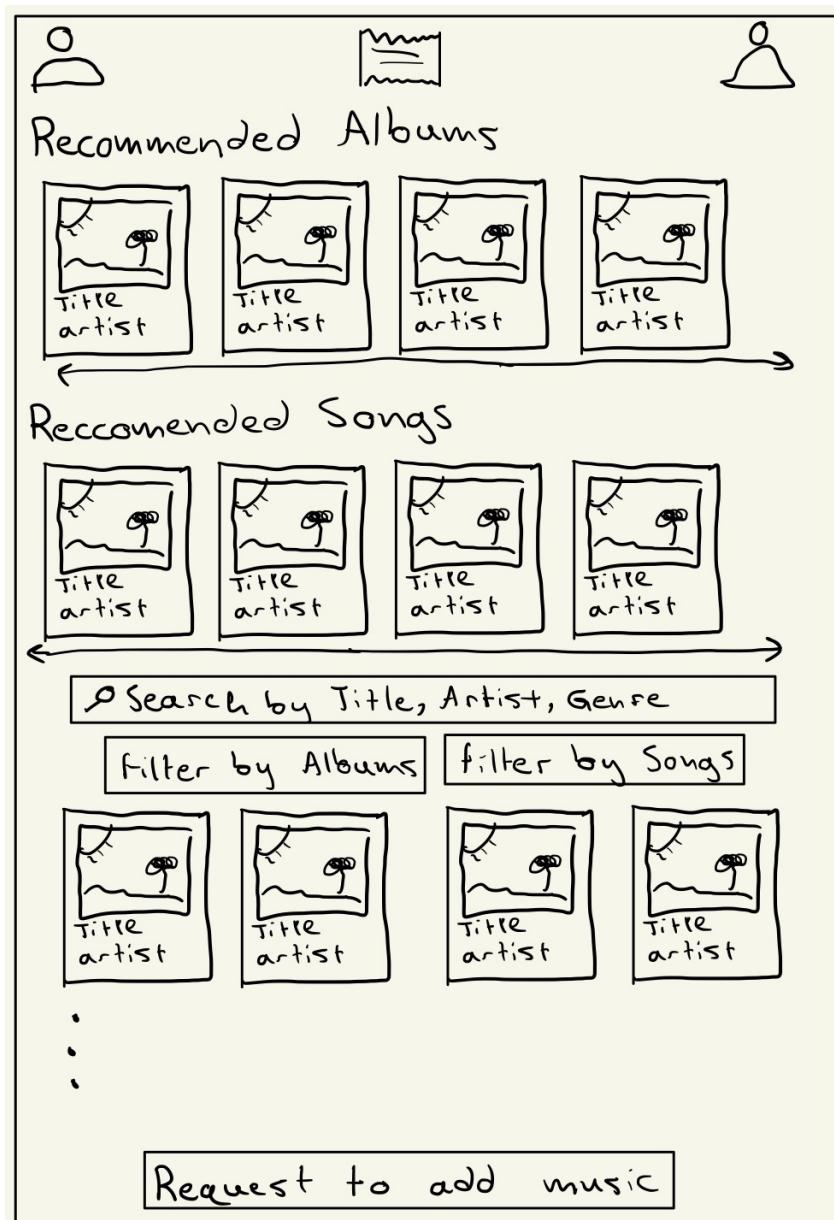
Screen Sketches

Screen 1 - Music Catalog: [Cayden]

This screen shows users different music in multiple ways. Either through recommended songs, recommended albums, searching by multiple fields, or filtering by albums or songs only. This view allows users to access information about specific albums, songs, artists, and request to add new content.
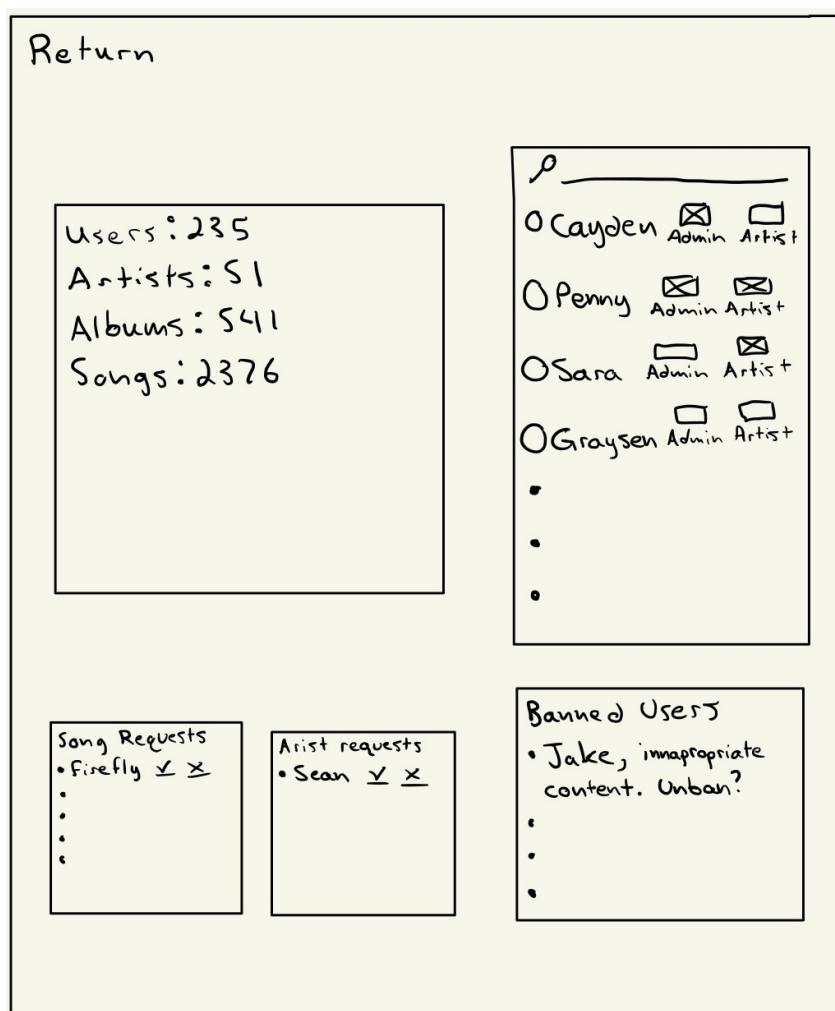
- **Profile:** This button allows the user to traverse to their own profile page.

- **Reviews:** This button allows the user to traverse to the reviews page.

- **Notifications:** This button allows the user to traverse to the notifications page

- **Content Card:** Displays minimal information about either albums or songs. Users can press on the content card to traverse to a more detailed album/song view.

- **Search:** A simple search bar allowing users to specify their desired content by title, artist, or genre

- **Filters:** Allows users to filter the content being shown by either songs or albums only.

- **Requests:** Allows the user to request new content if it is not present on the music catalog.

Screen 2 - Admin View: [Cayden]

This screen allows system administrators to view, change, and edit different statistics, user data, and app data. Admins can search all users and manage their app permissions easily with check boxes, manage requests for new content/artists, and manage banned users or inappropriate content.
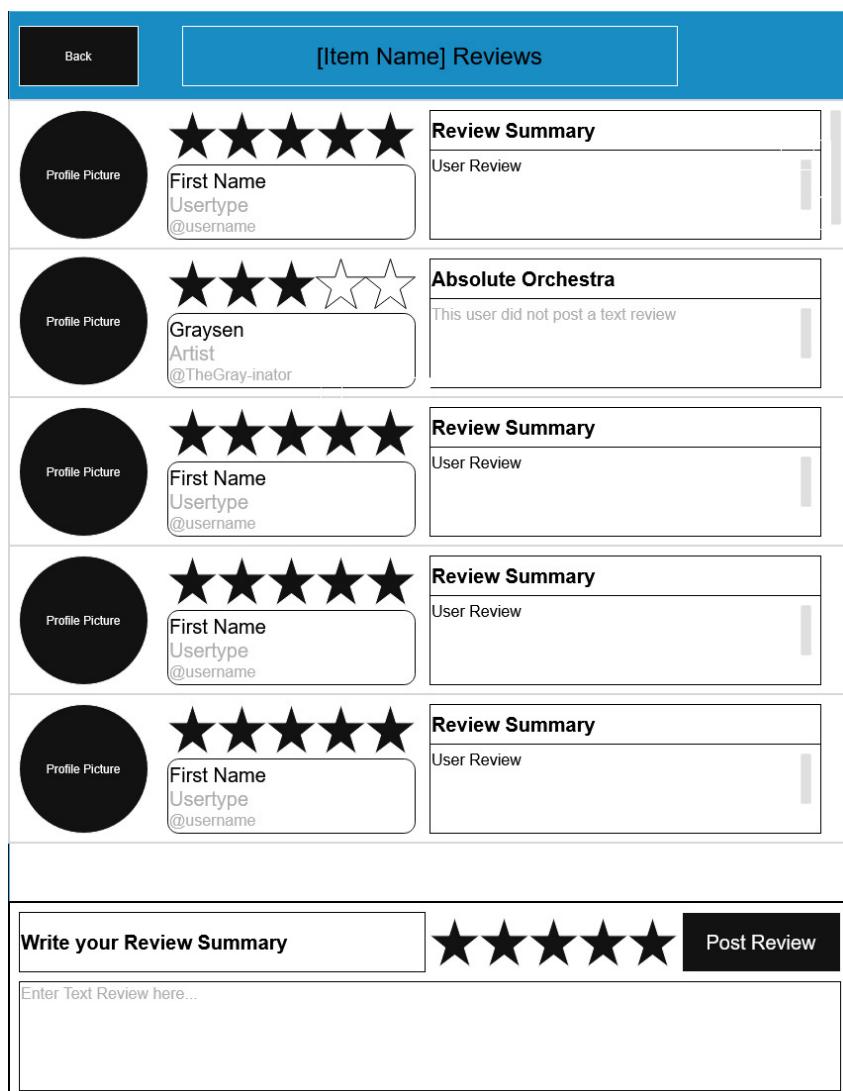
- **Return:** This button allows administrators to return to the profile page.

- **App Statistics:** Displays numbers about the app including total users, artists, albums, songs, reviews, etc.

- **Search Users:** Allows administrators to search for specific users and view/manage their app permissions.

- **Requests:** Separate sections allow administrators to view and accept/deny new content or new artist requests.

- **Banned:** Allows administrators to manage banned users

Screen 3 - Reviews: [by Graysen Schwaller]

This screen allows users to see all reviews on a specific object, and add their own review.
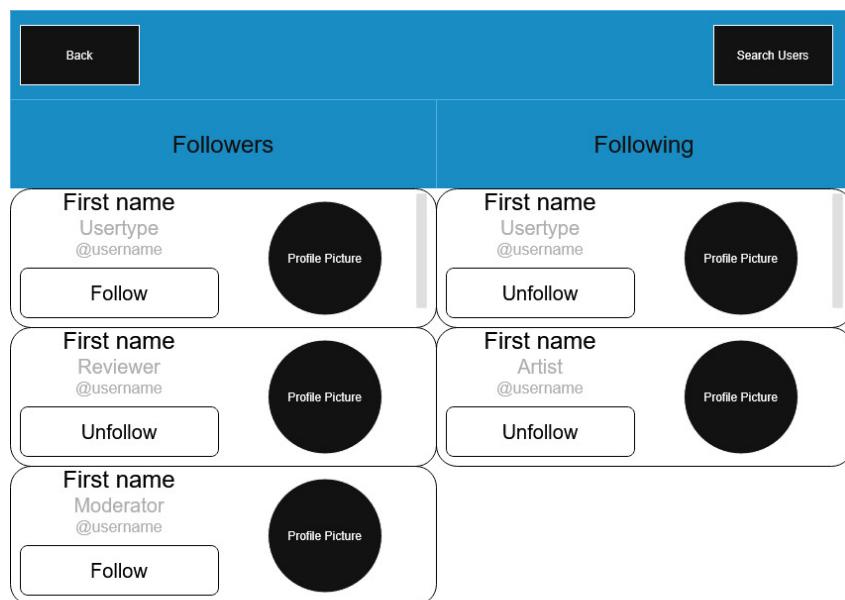
- **Back:** This button sends the user back to the parent User, Album, or Song page.

- **Item Name:** The name of the parent item.

- **Profile Picture:** A small photo representing and selected by the reviewing user.

- **Stars:** A representation of the rating left by users. Ranges from 0-5 stars (Halves included)

- **First Name:** The first name of the user.

- **User Type:** The type of user.

- **User Name:** The username of the user.

- **Review Scroll bar:** Dragging down allows you to see more reviews if amount of reviews exceed number able to be shown.

- **Review Summary:** A required short text field that contains short form user reviews

- **User Review:** An optional text field containing long form user reviews

Screen 4 - Follows: [by Graysen Schwaller]

This screen allows users to view all of their follows and users that follow them, as well as manage all of their follows. At the top, users can select **"Search Users"** to find new users to follow:
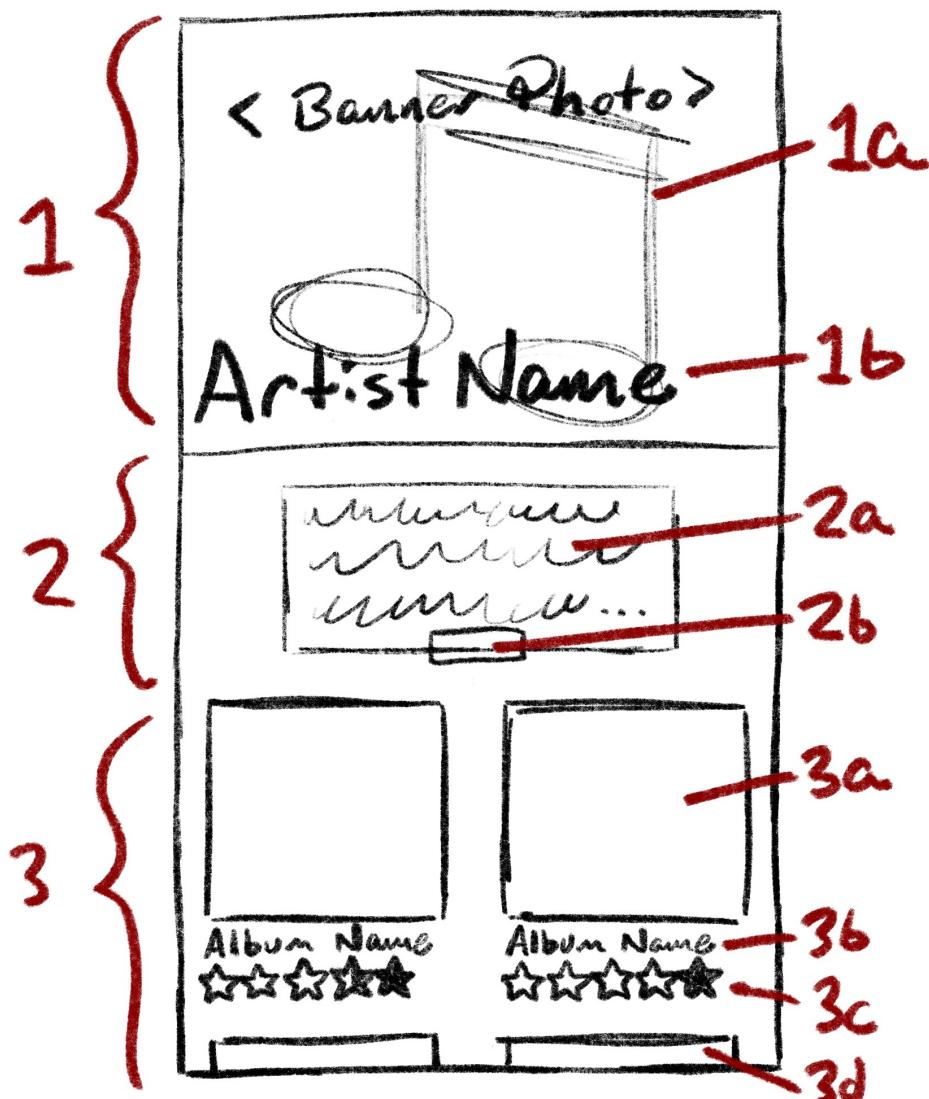
- **Back:** This button sends the user back to the profile page.

- **Search Users:** This button sends the user to a Page to search through all users.

- **Profile Picture:** A small photo representing and selected by the user.

- **First Name:** The first name of the user.

- **User Type:** The type of user.

- **User Name:** The username of the user.

- **Scroll bar:** Dragging down allows you to see users if amount of users exceed number able to be shown.

Screen 5 - Artist Detail: [by Penny Mayer]

This screen shows an overview of an artist's work, with photos, biographical information, and links to their music.
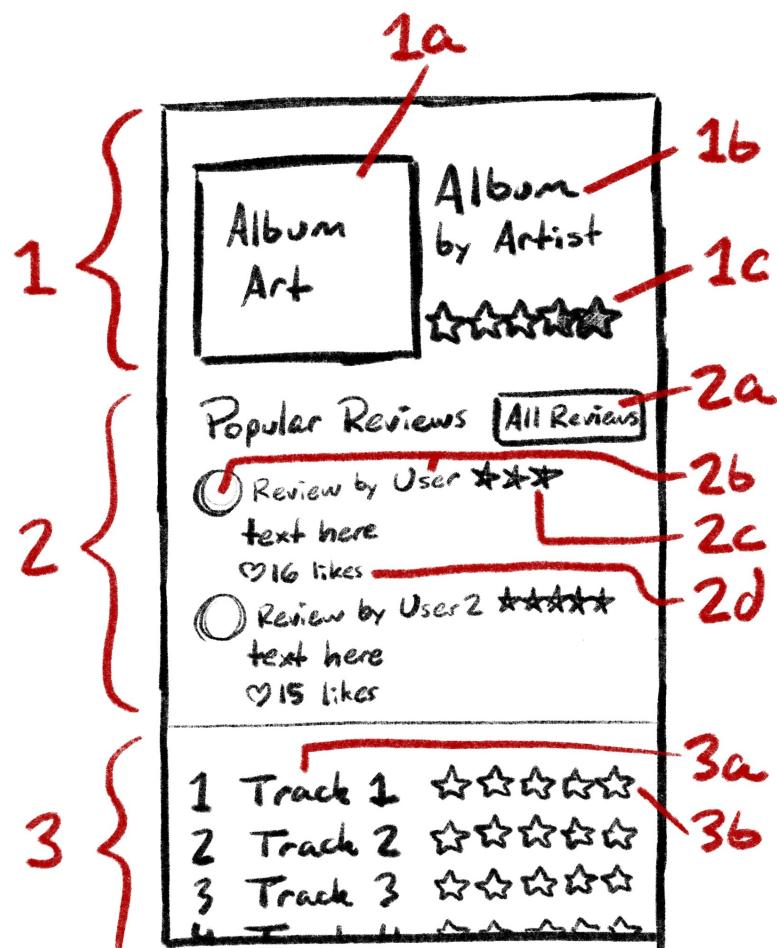
1. Header Area

    (a) Background Photo - fills area, behind title text
    (b) Name of Artist text - large block letters

2. Biography Area

    (a) Biography Text - collapsed to a few lines by default
   (b) Expand Button - reveals full biography text by pushing Music Area down

3. Music Area

    (a) Album Art - acts as link to album's page
    (b) Name of Album
    (c) Average Rating of Album
    (d) Additional albums available by scrolling vertically down

Screen 6 - Album/Song Detail: [by Penny Mayer]

This screen aggregates user-generated content relating to specific albums or tracks of music. Average rating and most popular reviews (as determined by number of "likes") are shown. Track list of the album, with average rating for each track, is shown. Each row of the track list serves as a link to that track's specific page, which looks just like the album page but without a track list.

1. Header Area
   (a) Album Art
   (b) Name of Album and Artist
   (c) Average Rating of Album as generated by users

2. Review Area, showing top 2 Reviews
   (a) Button that links to album's Review Page
   (b) User Info: profile picture and username
   (c) Rating submitted by user
   (d) Number of likes by other users on this review

3. Track List Area
   (a) Name and Number of Track
   (b) Average Rating of Track

Screen 7 - Lists: [by Sara Theriault]

This screen allows users to view and manage all of their created lists. At the top, users can select **"+ Create New List"** to start a new list by entering a title, optional description, and cover image. Each existing list is displayed as a rectangular card that includes:

- **List Image:** A small preview or cover photo representing the list.

- **List Name:** The user-assigned title of the list.

- **Author:** The creator of the list (usually the logged-in user).

- **Description:** A short summary of the list's contents.

- **Created On Date:** Displays when the list was created.

- **Navigation Arrow:** Tapping or clicking it opens the detailed list view, showing the songs or albums within.

Users can scroll to view all their lists and easily create new ones from this screen.

Figure 1: My lists screen showing existing lists and the create list option.

Screen 8 - Notifications: [by Sara Theriault]

This screen allows user to view recent notifications generated by interactions from other users or system events. At the top, users can see total number of unread notifications and may select **"Mark all as unread"** to clear them. Each notification appears as an individual card containing:

- **Profile Picture:** A small circular image of the user or artist who triggered the notification.

- **Timestamp:** Displays the exact date and time the event occurred.

- **Message:** Describes the event, such as:

    - *@username followed you*
    - *@username liked your review*
    - *@username commented on your review*
    - *@artist liked your review*
    - *Your uploaded song has been approved by @admin*
    - *Your report on @username's review was resolved*

Unread notifications are highlighted to draw attention.
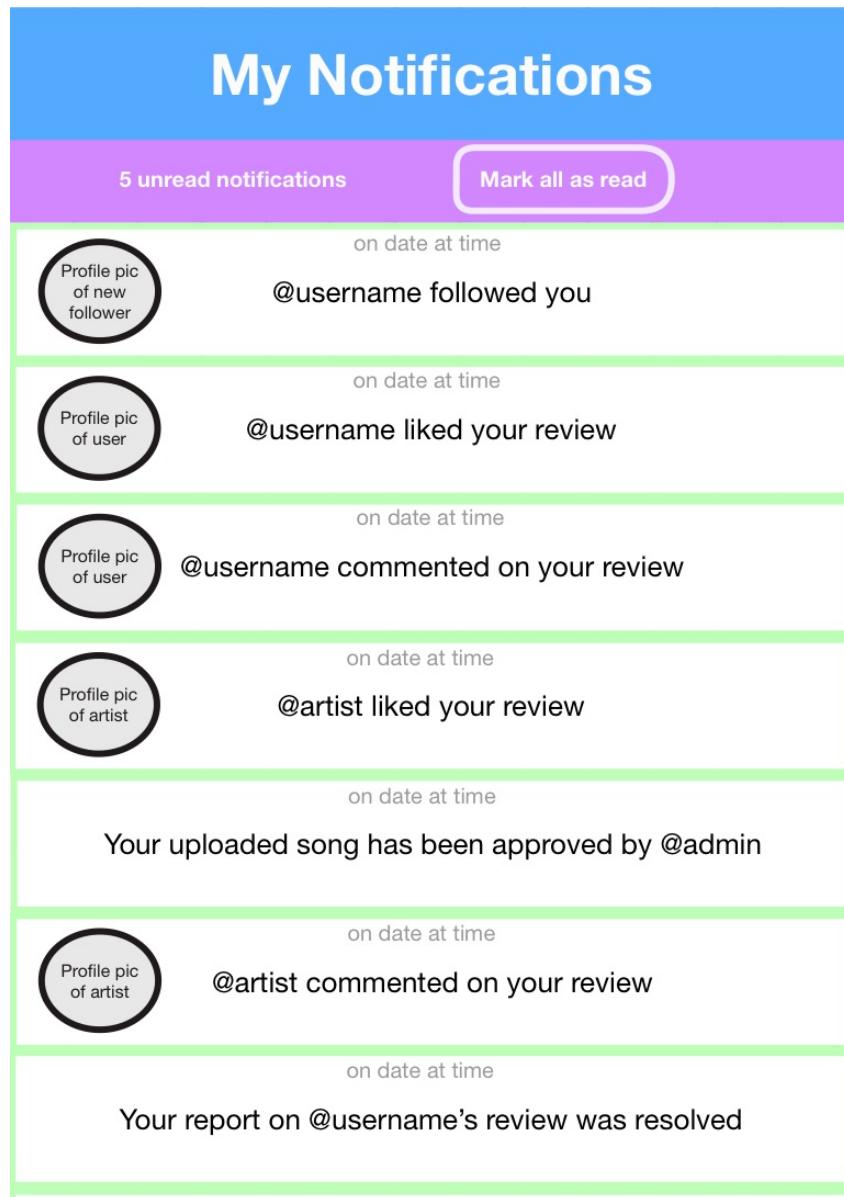
Figure 2: My notifications screen showing user and system alerts.