

iOS Final Project Proposal

Nostalgia Vault: Collect and Catalog Memories

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Mobile App Development with iOS

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Description of Concept:

For my final project, I wanted to create an app that resonates with me not only emotionally, but also one that was on par with the mixed media of analog and new media I currently enjoy working with, and so I chose to create an app called *Nostalgia Vault*.

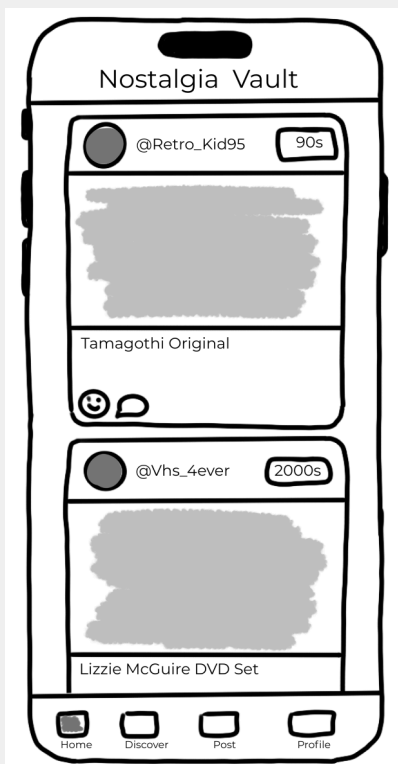
Nostalgia Vault is a social iOS application centered around the physical objects that shaped who we are growing up. The idea came from my own experience with holding on to a deep connection to the toys, media, and everyday items from my childhood. And I found that there isn't really a dedicated space to document, share, and discover those things personally. Besides journaling, older items shared online happen in places like eBay or garage sales, and I don't want to share stories about my items and sell them; I want to tell the stories behind them and then continue to appreciate them.

Currently, the most similar existing apps are either general social platforms that were not built with this kind of intentional collecting in mind, or personal journal apps that keep everything private. *Nostalgia Vault* sits in the middle, combining the visual sharing experience of a social feed like Instagram and Pinterest, but with the satisfaction of building a personal collection with documentation for joy and not just images. The intended audience is anyone who grew up in the 80s, 90s, early 2000s, or earlier, and

who feels a connection to the physical culture of those eras or items they treasure. Though the app is designed to be open to any decade or generation. The focus for this project will be on core functionality, with the idea of expanding the app further as a portfolio piece beyond this semester.

Nostalgia Vault is designed to feel approachable and visually driven, with a focus on keeping the posting process quick and low-friction so that sharing a memory feels as easy as snapping a photo. Your sentimental and nostalgic feelings can be a reflection of your life and experiences shared in one place!

Five Interactive/Useful Scenes:

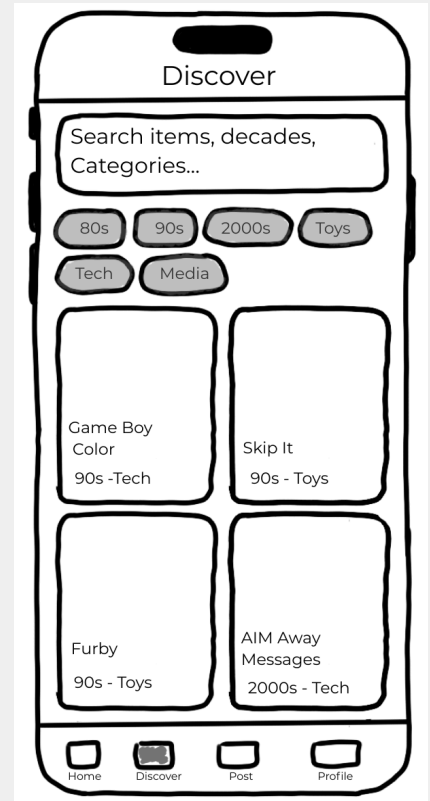


Scene 1 — Home Feed

Upon opening the application, the user will be brought to the Home Feed, which serves as the main landing screen. Here, users will see a scrollable list of posts from accounts they follow. Each post will display the item's photo, title, decade tag, and memory note, along with interactive buttons to like and comment. A tab bar at the bottom of the screen will provide navigation to the Discovery, Post Creation, and Profile screens, represented by icons.

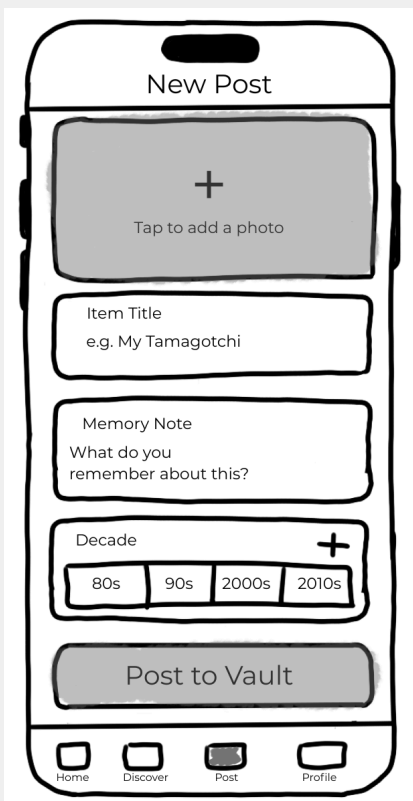
Scene 2 — Discovery

Tapping the Discovery tab will bring the user to a browsable screen where they can explore posts from the entire Nostalgia Vault community. At the top of the screen, a search bar allows users to search by keyword. Below that, filter options organized by decade (80s, 90s, 2000s, and more!) and category (toys, tech, media, clothing, etc.) allow users to narrow results. Tapping a specific post from the results will open a detailed view of that item, including the full memory note and the option to save it to a personal collection.



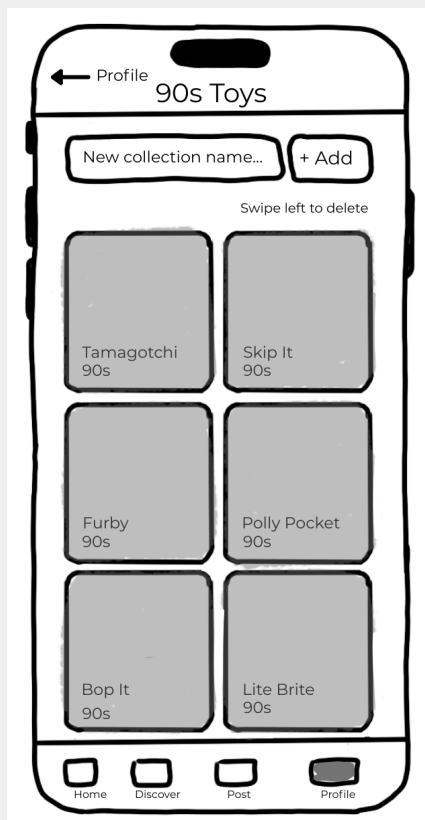
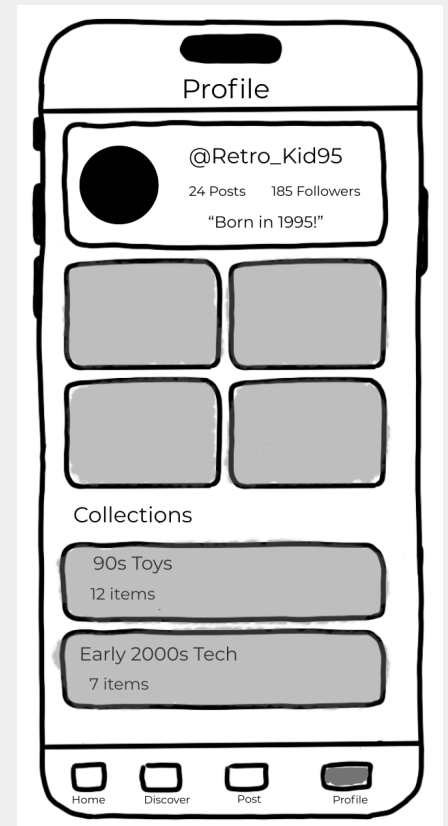
Scene 3 — Post Creation

Tapping the Post button will navigate the user to the Post Creation screen. Here, users will be prompted to upload a photo from their camera roll, enter a title and memory note using text fields, and select a decade tag using a picker wheel or segmented control. A "Post" button at the bottom will publish the entry to their profile and to the feeds of their followers. Input validation will ensure that the photo, title, and decade tag fields are completed before the post can be submitted.



Scene 4 — Profile

The Profile screen will display the user's username, a grid view of all their posts, and a scrollable list of their named collections below. Users can tap any post to view its full details, or tap a collection to navigate to the Collection Detail screen. An edit button will allow users to update their username or profile photo.



Scene 5 — Collection Detail

Tapping a collection from the Profile screen will open the Collection Detail view. This screen displays the collection's name at the top and all posts saved to that collection in a scrollable grid. At the top of the screen, users will find a text field and a button to create a new collection, and a swipe-to-delete function will allow users to remove collections they no longer want.

Meeting Project Requirements:

At least four interactive/useful scenes:

- Scene 1: Home Feed: scrollable list of posts with like, comment, and save buttons, rendered dynamically using ForEach over an array of Post structs
- Scene 2: Discovery: search bar and filter controls for browsing community posts, with results updating dynamically based on @State variables tracking the active filters
- Scene 3: Post Creation: image picker, text fields, segmented control, and submit button, with @State managing all input fields and an Alert triggered if required fields are incomplete
- Scene 4: Profile: grid view of posts and tappable collections list, with @Binding passing user data down into subviews
- Scene 5: Collection Detail: new collection input field, add button, and swipe to delete, driven by a ForEach over an array of Collection structs conforming to Identifiable

At least five interface controls:

- TextField for item title, memory note, and new collection name inputs
- PhotosPicker for uploading a photo from the camera roll on the post creation screen
- Segmented control (Picker with segmented style) for selecting a decade tag

- TabView for primary navigation between the Home Feed, Discovery, Post Creation, and Profile screens
- List with swipe to delete for managing saved collections
- NavigationStack for programmatic navigation into Collection Detail and individual post views

App icon and graphics:

- 1.) A custom app icon that reflects the nostalgic, personal feel of the app
- 2.) Potential color palette: The teal as the primary accent color, like buttons, tabs, and active states. The cream for backgrounds, the orange for decade filter chips, and tags. The brown for solid for dark UI elements - or off-black for text contrast in darker colors.

#74B8AE	#E9CB97	#FF9A43	#7C4B2C	#282121
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- 3.) Decade filter chips and category tags for visual organization throughout the Discovery screen
- 4.) Post image thumbnails are handled using placeholder image logic to ensure a graceful display if no photo is selected.
- 5.) Profile avatars, post image thumbnails, and collection grid views for a visually driven experience

User-centered design:

- Clear TabView navigation makes moving between screens simple and intuitive

- Input validation on the post creation screen ensures photo, title, and decade tag are all completed before submitting, with a SwiftUI Alert prompting the user to fill in any missing fields.
- Swipe to delete on collections follows standard iOS interaction patterns that users already know.
- Placeholder text in all input fields guides users through the posting process without needing separate instructions.

Successful build and smooth run:

- 1.) Views will be broken into smaller, reusable SwiftUI components to keep code clean and manageable
- 2.) Post and Collection data models will be defined as custom structs conforming to the Identifiable protocol, ensuring compatibility with ForEach and List throughout the app
- 3.) @State and @Binding will be used throughout to manage data flow between views cleanly
- 4.) Input validation will prevent empty or incomplete posts from being submitted, triggering a SwiftUI Alert to guide the user
- 5.) Data for posts, users, and collections will be stored using structs organized as arrays
- 6.) Thorough testing in the iOS Simulator to ensure no crashes under any user input