

HUCart



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App Info



HUCart is a college-focused shopping app.



Benefits: Simplifies shopping across multiple campus-accessible stores.



Target Audience: Students at Hampton University.

Technical Design

APIs and Frameworks:

- **SwiftUI:** Used to build the entire UI with declarative components such as NavigationStack, VStack, List, and interactive controls like Button and TextField.
 - **@State:** Manages simple view-level state. Used to track UI changes like input fields and toggle status.
 - **@Binding:** Creates a two-way connection between views. Used to pass selected store or state back to parent views.
 - **@EnvironmentObject:** Shares data across multiple views. Used for the CartManager to sync cart info everywhere.
- **Foundation:**
 - **UUID:** Generates unique IDs for models like Product and Order.
 - **Date:** Used for time-stamping order history.
 - Provides basic types, collections, and date formatting.

Actual Implementation

Models: Product, CartItem, Store

ViewModel: CartManager

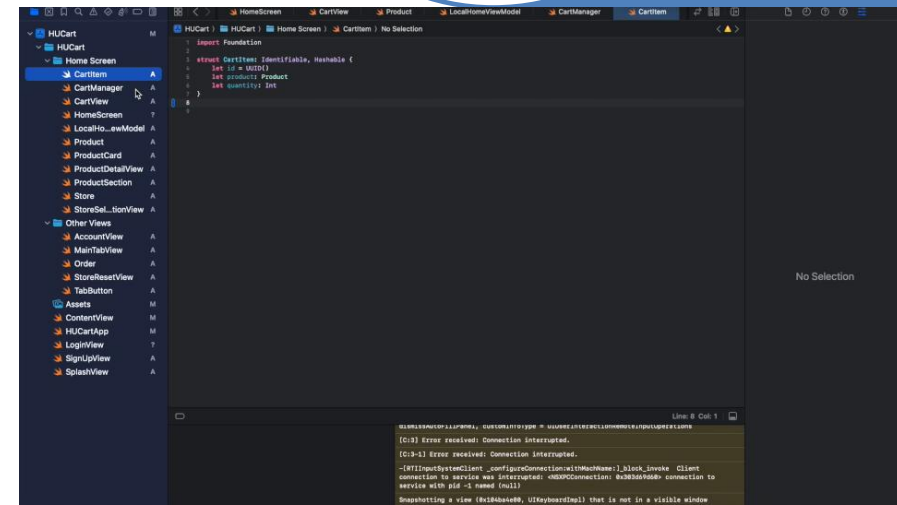
- Handles cart logic, checkout, and order history

Views:

- LoginView
- StoreSelectionView
- HomeScreen
- CartView
- AccountView

Navigation:

- LoginView → StoreSelectionView → HomeScreen → CartView



Final Screen Design

- - **LoginView**: Input username/password and navigate to store selection
- - **StoreSelectionView**: Choose between Walmart, H&M, etc.
- - **MainTabView**: Access Home, Cart, Account,
- - **CartView**: Modify items, checkout, clear cart
- - **AccountView**: Displays order history, Logout and user info

Login

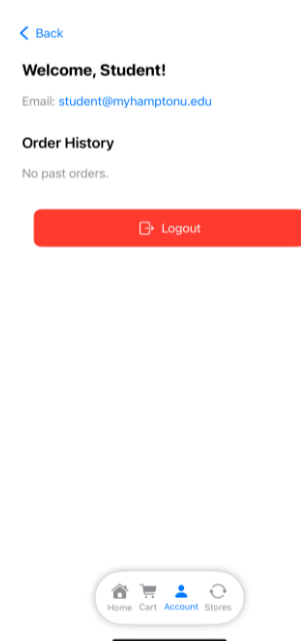
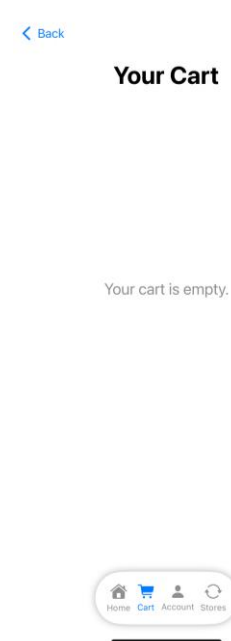
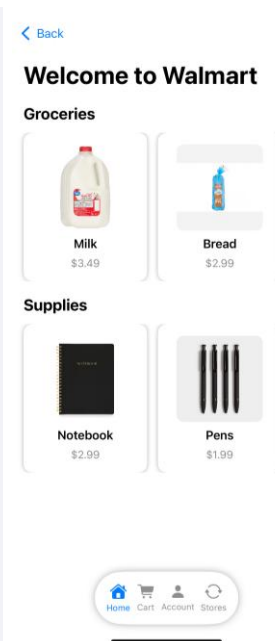
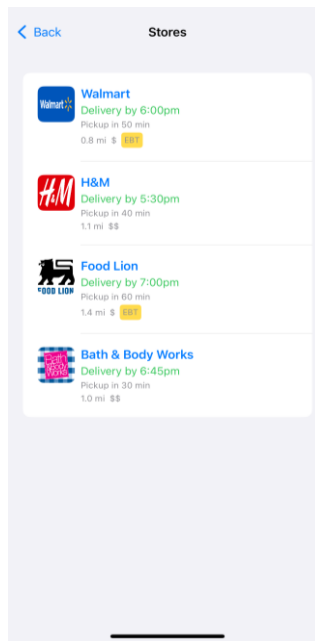
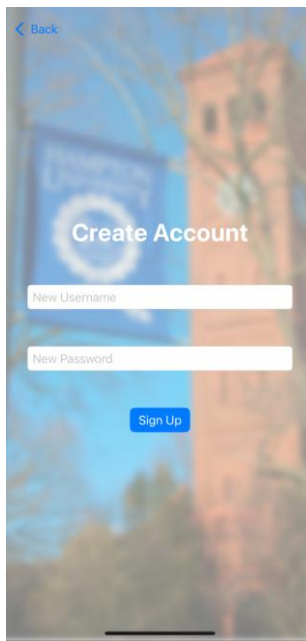
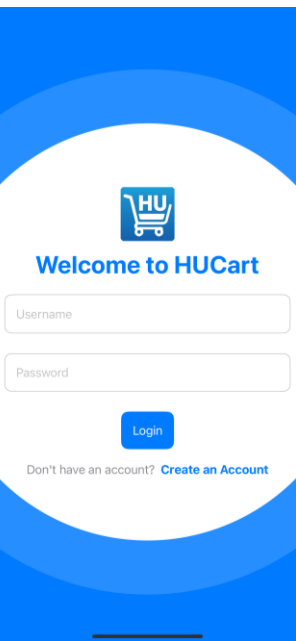
Login

Store

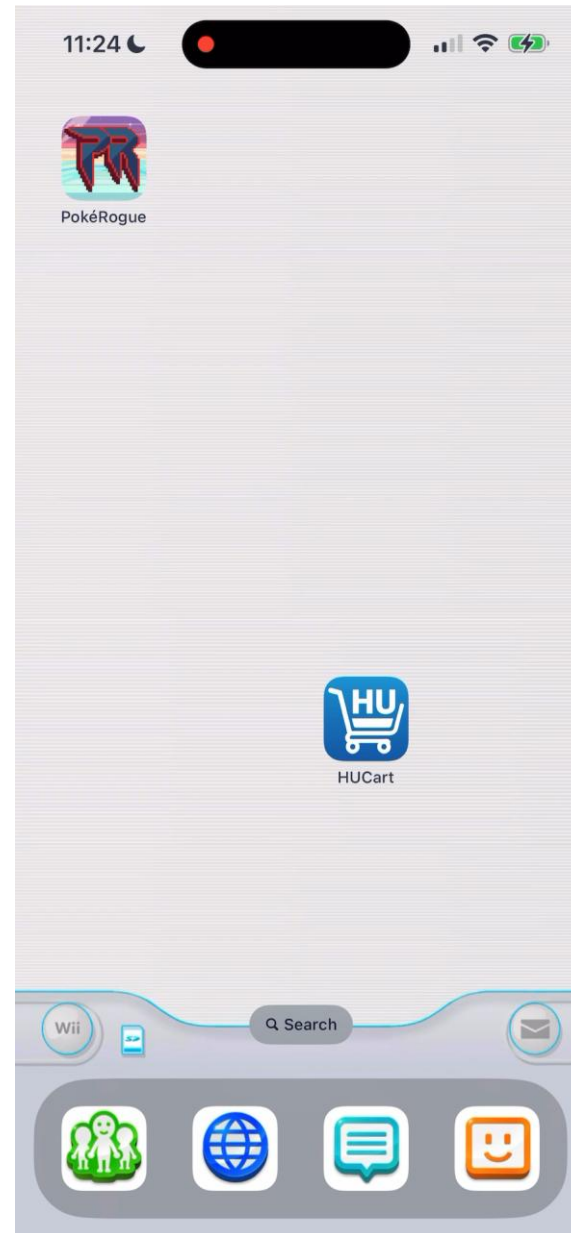
Main

Cart

Account



Live Demo



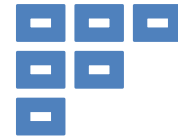
Future Work



Add a login API (Google, Apple, etc)



MapKit support for delivery tracking

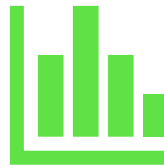


Dark mode customization and accessibility improvements

Lessons Learned



Importance and
smoothness of in SwiftUI



Effective use of
NavigationStack and data
passing



Swift UI Syntax

References

- SwiftUI Documentation - Apple Developer
- Hacking with Swift: <https://www.hackingwithswift.com>
- CodeForAny – Youtube Channel