CSCI-590
Directed Research

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Objective

We want to create a mobile app which could serve as a shop place for USC Bookstores. We want to target all the users who wish to purchase USC merchandise to use this app for hassle-free and apply easy-filters to get their desired product.

Basically, this app is an extension to the present USC Bookstores website, but allowing more flexibility and easy-to-navigate interface.

Problem Statement

To buy any item at USC Bookstores, students and alumni have to face challenges in terms of going to a store to checkout for the product if it's available, search for that item amongst bunch of other items and then stand in a long queue to check out the items.

We are trying to simplify this process by providing an easily navigating app that a user can use to search for an item, look for other various available options and then could readily pay for that item on the spot using his Debit/Credit card.

The user is also provided with a list of available deals (events) at that time & an option to tag an item to be used for future reference.

Technical Overview

Building a prototype for this app based on the following:

Platform: iOS8

Programming Language: Swift

Data source: Static data for now, since currently there is no API which can return the data for Bookstores

The app has been designed keeping in mind the eight golden rules of a good user interface design. These include:

1. **Strive for consistency**: The app has a consistent and common design across all the modules and menu items like men's collection, women's collection and others.

2. **Cater to universal usability**: The application is easy-to-navigate and use by people from different background and expertise-levels.

3**. Offer informative feedback**: Feedback is provided on all major actions and selections like adding an item to cart, etc.

4. **Design dialogs to yield closure**: The user is provided different sections/modules while purchasing an item.

5. **Prevent errors**: Errors are shown at appropriate steps like adding 0 items to cart and then checking out.

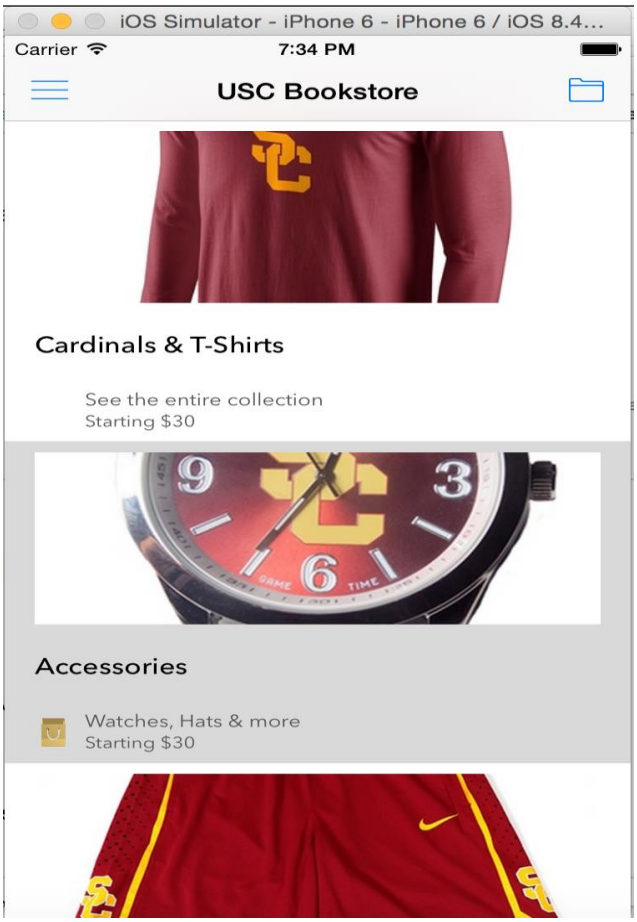
6. **Permit easy reversal of actions**: Once the user adds an item to cart, he has the flexibility to again revert his actions and add/modify some new items.

7. **Support internal locus of control**: The user has complete control over the actions which he performs and the interface behaves correspondingly too.

8. **Reduce short-term memory load**: The user is allowed to keep a tag on various items, so that he may come back later and is again provided with his categorized labels like ‘My Favorites’, ‘Black jackets’, etc.

Homepage

As the user opens up the application, he gets to see the men's wardrobe section by default along with left navigation menu options in addition to more options on the right hand side of the screen.



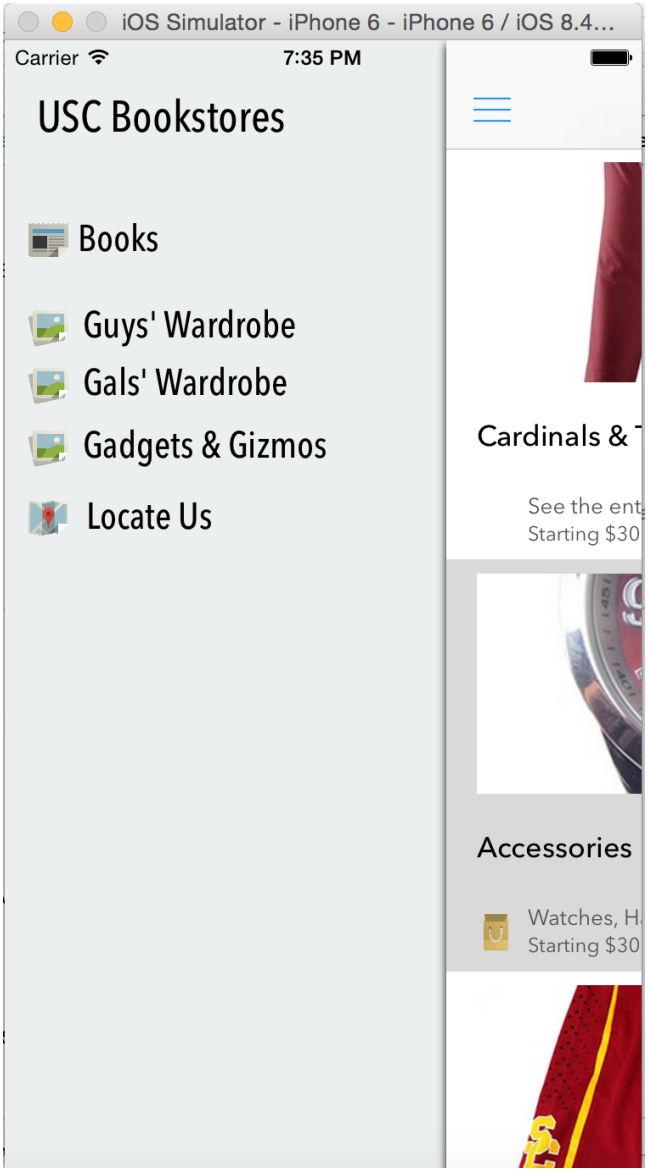
The items are categorized into different sections like 'Cardinals & T-Shirts', 'Accessories', 'Bottoms', etc. On clicking any category, the user is redirected to the page where he is presented with a list of available options in that category. The user would also have an option to add an item to the cart, mark some label to it.

On the header, app provides a left navigation menu to navigate to other sections of the app too. The upper right menu provides additional options to view the cart, events or labels.

The other navigation menu items also open up a similar page with items categorized into different sections.

Left Navigation Menu

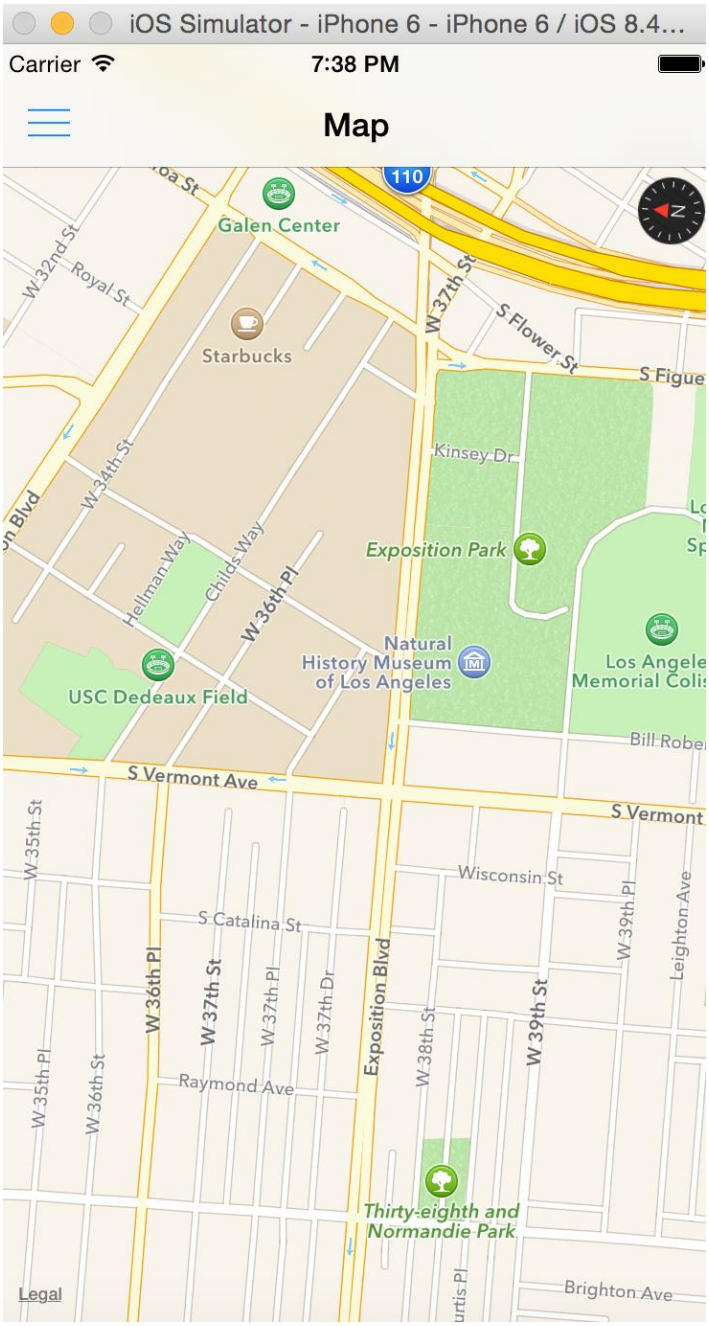
The left navigation menu is an overall overview of what functionalities are provided by the app.



Options included are Books, Guys' Wardrobe, Gals' Wardrobe, Gadgets & Maps (Directions). It's a separate section and is activated/deactivate only by clicking on top-left menu button. Different screens are linked separately to each of these options.

Locate Us

For instance, Locate Us option takes the user to a map and may provide him with directions to the bookstore. This is useful since this app currently provides option to pay for the merchandise but has to manually pick it up from the USC bookstore. Using maps, the user can easily navigate to the store. It uses Apple Maps API to get the directions.

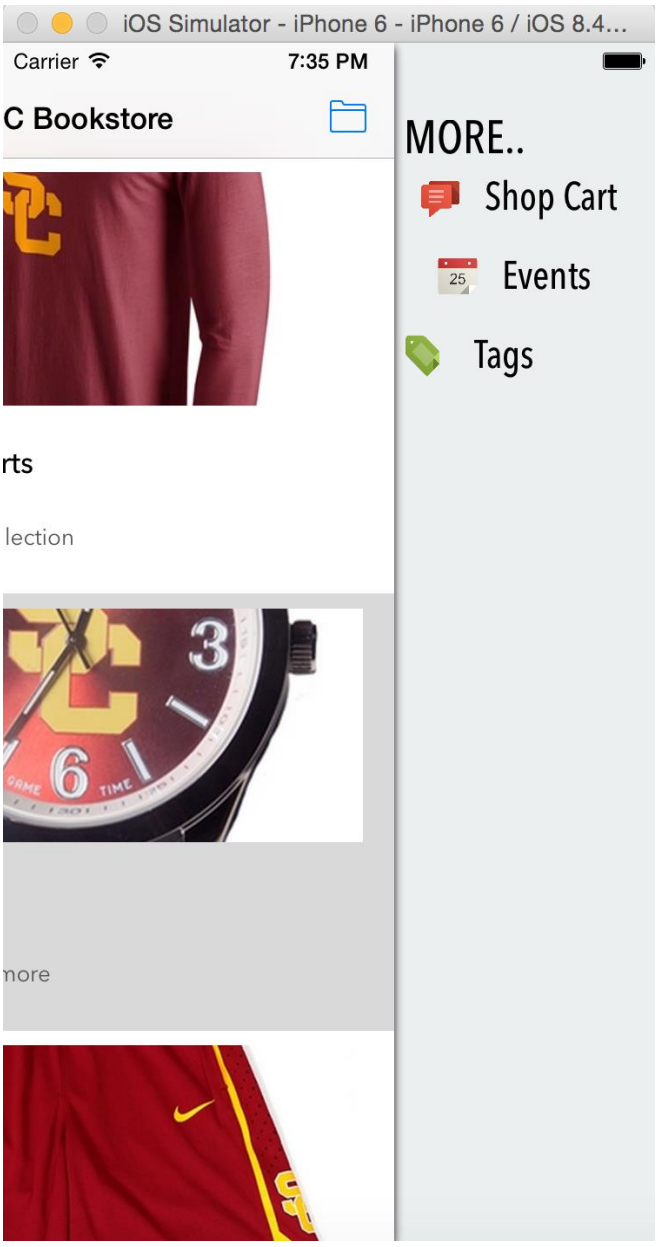


Right Navigation Features

Right navigation provides features like viewing the cart, upcoming events and tags (favorites). Cart lists the currently added items and provides options like checkout/add/delete.

Events open up the upcoming planned events/sales at USC Bookstores.

Tags provide flexibility to save some items to be viewed later.



Future Scope of the application

Right now the application has the provision to checkout some items and pay them using USC Card as the payment option.

We can open up the app to non-USC people as well by allowing check-out using a payment method for Visa, MasterCard, etc.

References for tutorials: Appcoda

Reference to code: https://github.com/nikhilmoorjani/USC-Bookstore-iOS-App