Bipul Karki
CMPE 277
Smartphone Application Development, Section 1
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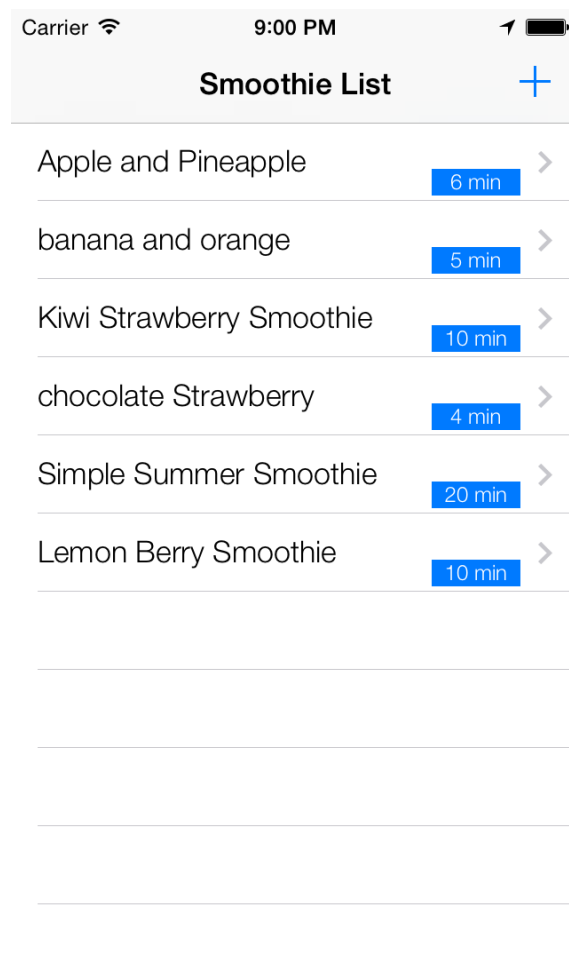
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Assignment - iOS App
App Report,
Smoothie List App

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Goal of the App:

The Smoothie List is an iOS app that utilizes Parse.com as a Backend as a Service (BaaS). This app allows users to save a smoothie's name, ingredients, the time needed to make it, and estimated cost of ingredients on the Parse's database. When a user launches the app, he or she will be able to see the list of smoothies that are already in the database. A user can select and tap on the name to view details about that particular smoothie. The user can also tap on the "+" navigation button to add a new smoothie and save it on the database. Figure 1, shows the table view screen with a list of smoothies.

Figure 1- Display of Smoothie List using TableView and NavigationController

High-level architecture:

This app relies heavily on Model-View-Controller and Delegate patterns. For user interface design, the app implemented Navigation Controller and Table View. The Navigation Controller comes with segue for connecting to next view for navigation. Each view has its own controller that controls the view elements and contents, and also acts as an intermediary between data model and the views. The app uses Parse.com for backend services. The data itself is saved on the Parse.com. To fetch the data and list it on the table view, the app utilizes PFQueryTableviewController API from the Parse Framework. Figure 2, shows the storyboard diagram and figure 3 shows the implementation of Parse framework. Figure 4, lists the libraries that were used for developing this app.
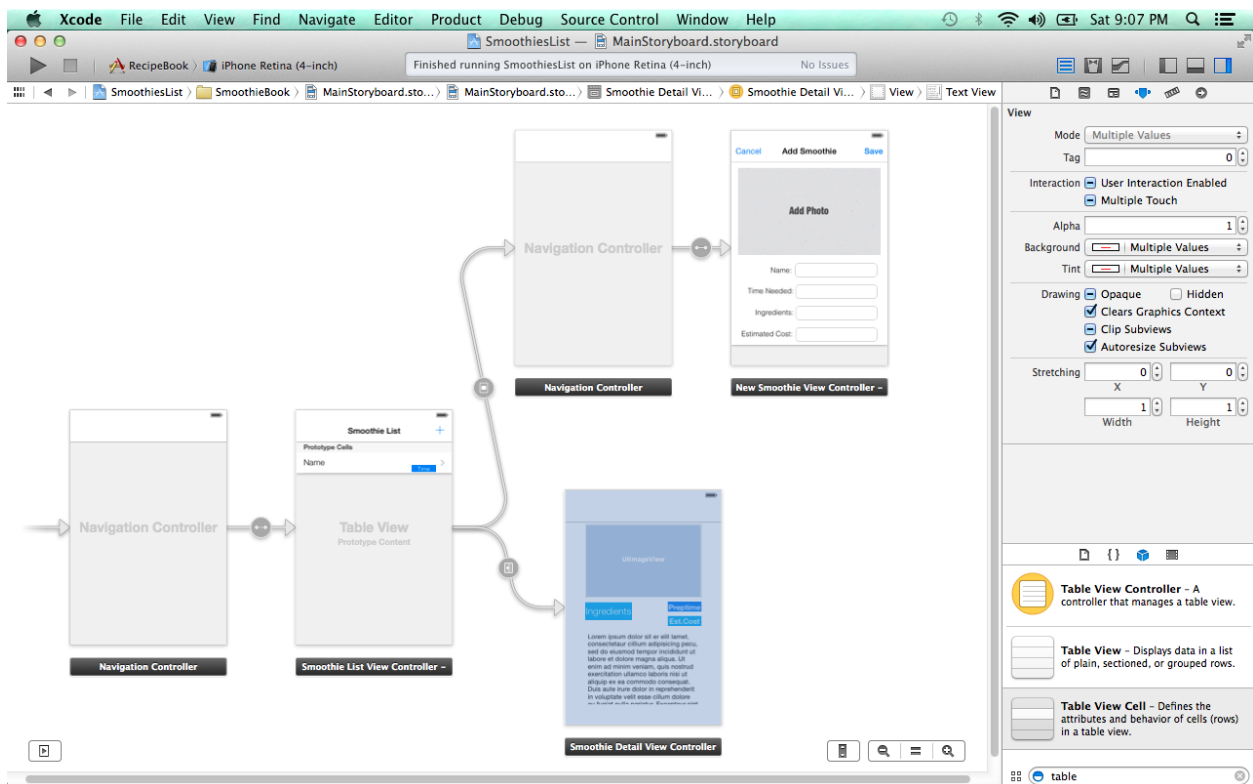
Figure 2- Storyboard Diagram

Figure 3 – Sub-classing PFQueryTableViewController

Figure 4 – Frameworks and Libraries

Technique and Testing:

The application implements high level of MVC design and also uses delegate software design patterns. The app started with a basic foundation and manually unit tested for stability and performance. This app also uses code snippets from various open source projects and each time a piece of code was added, the program was incrementally tested. The Code's debugger tool was very helpful in locating the bugs and errors. This application is a first version and in the future, it can be further polished and some more levels and functions can be added. Figure 5 was captured after successfully uploading a data object to Parse.com.

Figure 5 – Data browser on Parse.com

Additional Screenshots of the SmoothieList App:
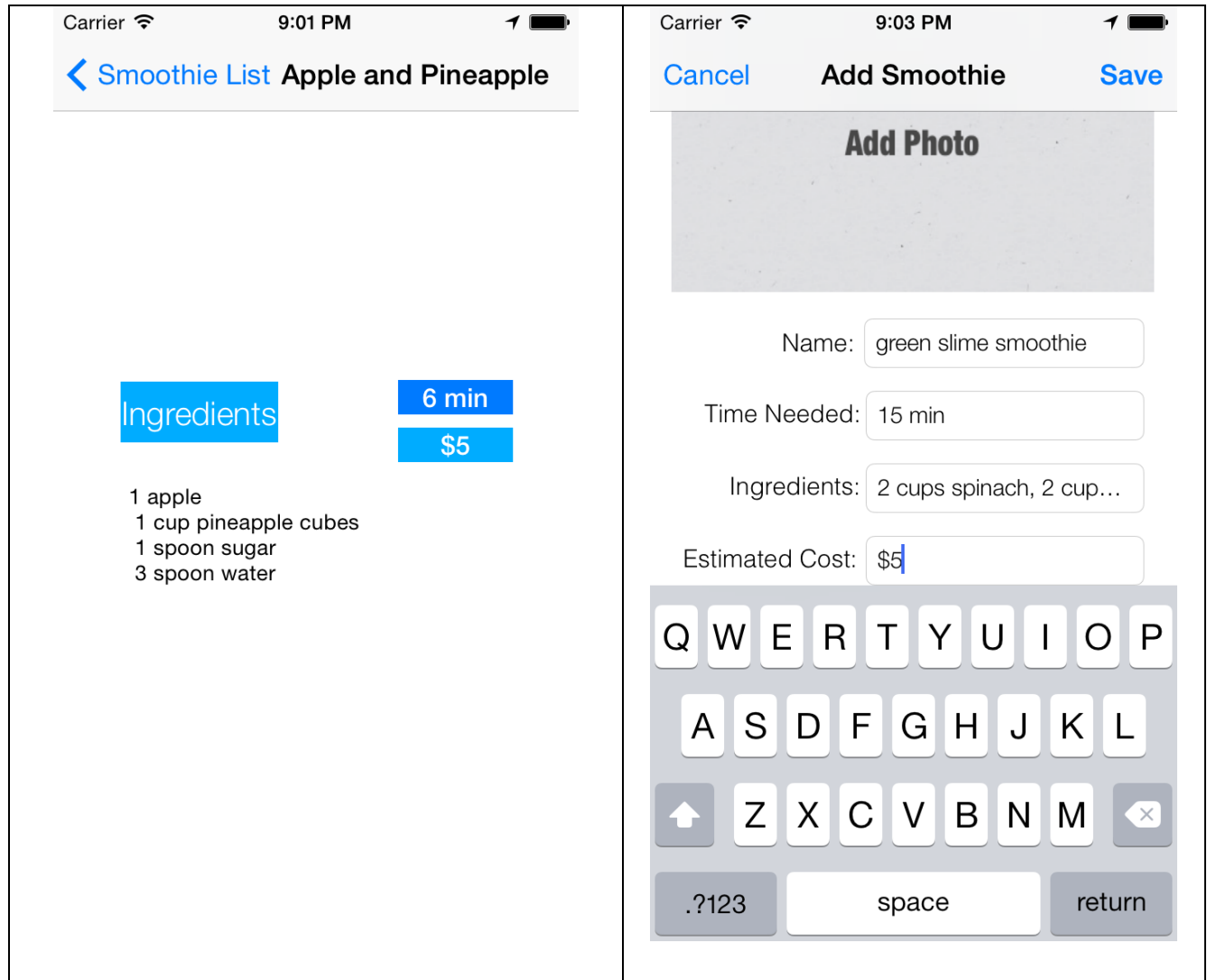
Apple's developer's site, appcoda.com and stackoverflow.com were very helpful during this app development process.

* The source code and more screenshots of the app are included in the project folder along with this report.