

# Shopping Recommendation App

## Project Report

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By

Ayhan Sahin

School of Science Department of Computing & Networking  
Institute of Technology Carlow, Kilkenny Road  
County Carlow, Republic of Ireland  
C00145773@itcarlow.ie

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### Revision History

Date	Version	Description	Author
28/04/2014	1.0	Initial & Final	Ayhan Sahin

## **1 Introduction**

The purpose of this document is to provide a details report and analysis of the Shopping Recommendation App. This document will cover learning outcomes, conformance to specification and project review.

## **2 Final Product**

The final release of Shopping Recommendation App lacks majority of functionalities which was described in the Specification document.

The application is able to do carry out following functionalities;

Sign Up a User

Login & Logout a User

Search for a User Based on the user email address.

Add a new Product

Add a new Shopping List

Send a Password Reset Link to User

Use Camera to take a Product Picture

Find User's GPS Location

## **3 Conformance to Specification & Design**

The final release product of Shopping Recommendation App matches the Specification & Design to an extent.

The final product matches the "External Interface Requirements" under "Specific Requirements" section in the Functional Specification document. However it does not match to "Communication Interfaces" in the mentioned sub section. This is due to development difficulties that I have encountered. I did not have enough time to implement the "Login with Facebook" functionality and Google Map Server, however I have used Parse.com's integrated location finder instead and achieved the same functionality as Google Map Server.

The final product does not match to “System Functionalities” section. There are number of functionalities that are absent. This is due to misused and misallocated time to deal with learning and understanding the Google App Engine for Android. Eventually, I have run out of time to implement necessary functionalities.

The final product matches to the “Data Dictionary” with slight changes which was specified in the Design Manual. The minor changes had to take place to suit Parse.com environment. I did not consider the “objectId” field in the cloud environments in the Data Dictionary and had “userId” field. I replaced the “userId” with the auto generated “objectId” in some cases.

It was decided to use the Google App Engine as a backed to the application in the Research Manual. However I had to change the cloud backend provider to Parse.com. I have encountered difficulties with the implementation of GAE with the Android, in most cases run into trouble with Eclipse IDE & Google App Engine APIs which almost made it impossible to build the application even if there were no errors with the code.

I had to change to Parse.com in order to have at least a minimum of functionality. Parse.com is much more effective and easier to implement.

## **4 Learning Outcomes**

### **4.1 Technical Learning outcomes**

As a result of this project work, I have developed my first Android mobile phone application. In fact, this project work is the biggest and the first individual project work that I have carried out so far.

During the development of the project I have built up my existing Java knowledge and learnt new technical skills which are related to Android Project Development such as XML for Android layouts.

I attempted to use the Google App Engine, despite I could not implement the Google App Engine backend on my project work, I have learned at basic level about how to use Google App Engine on a Java environment.

I have also learned how to use Parse.com on an Android project.

Despite the project success rate is very low, I can see that there is a big difference in technical knowledge between now and before project development.

## 4.2 Personal Learning outcomes

I did not practice good Time Management skills during the most of project development.

As a result of this project work, I have once more realized that the Time Management is an important personal skill, which should be always improved.

This project work influenced my technical skills in most and had a very little influence on my personal skills.

## 5 Project Review

### 5.1 What went right?

The developer has encountered a series of difficulties during the development of the project. The difficulties has started to show up from the day one of the project development phase and existed until the last minute of final release of the product.

For this reason, it is difficult to assess and report what has gone right during the development.

### 5.2 Development Difficulties

As it is briefly documented in the “Conformance to Specification & Design” section of this document, I encountered problems with implementing the Cloud backend. I did not have previous experience with Android and Google App Engine for Android. I spent more time on trying to solve one problem than what was needed. This in turn affected the whole course of the development and functionalities.

The main problem was the Cloud backend which I had to implement in order to carry out any other functionality.

I overcame the Cloud Backend problem by switching the Cloud backend Provider; however this switch did not have major impact, as it was already too late for any change to be made.

### 5.3 Outstanding/Missing Functionalities

There are number of functionalities absent on the final release of the application.

The missing functionalities can be listed as below;

User Profile

In App Friendship

Product Taxonomy

Product Recommendation

Product Search Facility

Request/Ask Product

Reply to Request

Import Facebook Friends

Rating Facility

Like & Share Recommendation

Invite Friends

Comment Facility

The above are the functionalities which were specified in the Functional specification and do not exist in the final product.

The number of factors that was discussed in the “Development Difficulties” section has directly influenced the absence of the above functionalities in the application.

## 5.4 Recommendations

This section will describe what would be done differently if the project work was to be completed again.

My future approach to development of this project would be completely different. I realized that I did not carry out enough research prior to coding. In my opinion, lack of research impacted on the course of the project. For the future purpose, I would focus more on research of Cloud backend and options available. I would analyse each option by its difficulty level, ability to carry out task etc.

If I would have started to development with the Parse.com as a cloud backend, I would have progressed more and implemented more functionalities.

Also, I realized that I need to analyse each platform and language options in depth, read documentation, APIs and test sample codes. This would allow me to assess my personal ability to carry out the development in that environment etc.

## 6 Acknowledgements

I would like to acknowledge my project supervisor Joseph Kehoe for his supports and advice to me during the development.

I also would like to acknowledge the owners of the following resources as I have used them in my application:

Parse.com – Anymeal Tutorial

I have used Parse.com's official android tutorials to learn about Parse.com. I have used their Camera example in Anymeal app to implement my own camera. I have made the necessary changes to suit it to my own needs and have understanding of the code.

Google.com – Android Drawer Navigation

I have used Google's official Android Drawer Navigation tutorial to implement my own Navigation drawer. I have moved everything into an abstract class and tailored the code to suit my own needs.

I have also used icons in my application which belongs to VisualPharm and Martz90 at iconsarchive.com