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Document Change History

Version Number	Date	Contributor	Description
PP-D-0.1	11/4/12	Mathew Yamasaki	Draft Revision
PP-D-0.1.1	11/5/12	Mathew Yamasaki	Added "Application Development Resources" section. Will complete later.
PP-D-0.1.2	11/6/12	Mathew Yamasaki	<ul style="list-style-type: none">• Added to section 1.1• Added Android Gingerbread market share figure to section 1.2.
PP-D-0.1.3	11/8/12	Mathew Yamasaki	<ul style="list-style-type: none">• Added to section 1 (Introduction).• Added Figure 1 to section 1.2.• Added details about the Kenai Project Android plugin to section 1.3.2• Added "industry" to section 1.2.• Change section heading design.• Added section heading for section 1.3.3 (Version Control System)
PP-D-0.1.4	12/19/12	Mathew Yamasaki	<ul style="list-style-type: none">• Removed "Team C" logos• Added details to section 1.2• Remove section 1.3.3 "Version Control System"
PP-D-0.1.5	12/21/12	Mathew Yamasaki	<ul style="list-style-type: none">• Add project schedule
PP-1.0	12/21/12	Mathew Yamasaki	<ul style="list-style-type: none">• Add UML diagram
PP-1.1	12/22/12	Mathew Yamasaki	<ul style="list-style-type: none">• Final formatting



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1 Introduction

This project plan describes the processes and resources required to plan, initiate, and control the development of an Android application that allows users to retrieve stock information about the 500 largest companies in the United States tracked by Standard & Poor's investment research and ratings firm. The performance of the stocks in this index, commonly referred to as the *S&P 500*, is a leading performance indicator of the sectors and industries to which each stocks belongs. Moreover, the performance of the index as a whole is representative of the economic climate of the US and worldwide investor sentiment.

1.1 Purpose

The primary purpose of this project is to fulfill course completion requirements of CMSC 465, *Current Trends and Projects in Computer Science*, from the University of Maryland University College. Additionally, it is the intent to develop a fully functional mobile application that fulfills the stock market information requirements of novice and professional investors and speculators.

2. Goals & Objectives

The goal of this project is to successfully integrate the Android platform, database design and management, and financial information sources to create a fully functional and user-friendly application within the defined time constraints.

3. Stakeholders

Stakeholders for this project are the developer of the application and users who will make trading decisions based on the information they receive from the application.

4. Specifications

The project will be built on the Android operating system architecture for mobile devices. The target version of Android is the 2.3.3 platform (API 10), also known as "Gingerbread". This platform was selected because it currently commands a 54.2% market share among all Android supported devices as shown in Figure 1.

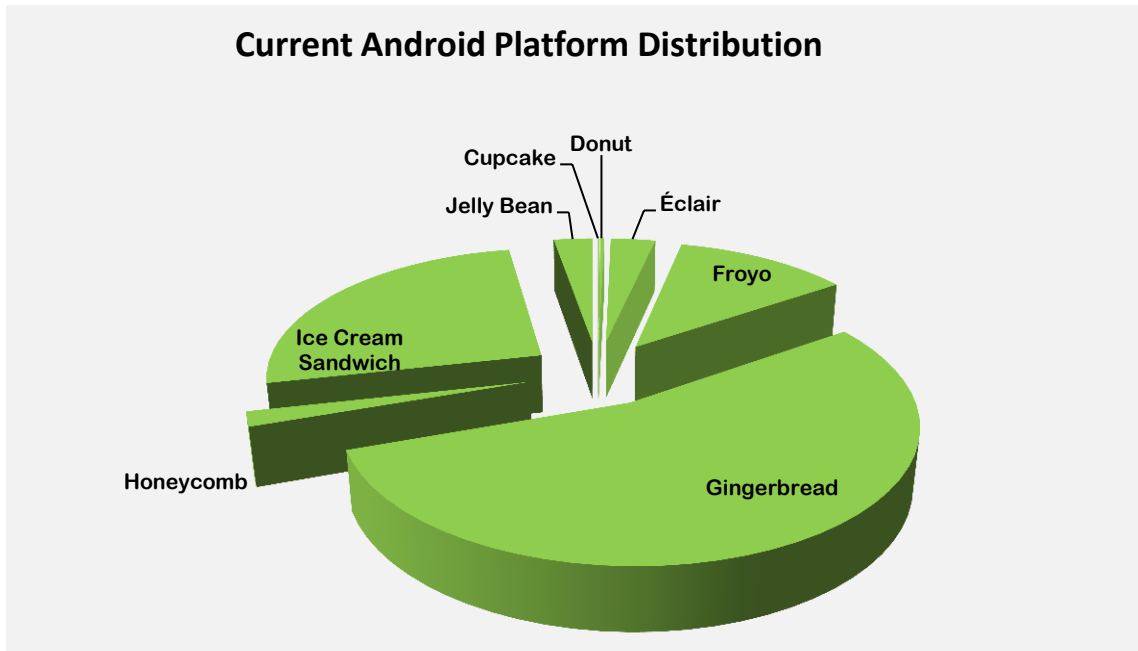


Figure 1. Gingerbread platform has a combined 54.2% Android market share for APIs 9 and 10.

The application will allow users to:

- Search for a stock by ticker symbol and view the following information:
 - Closing price
 - Price change from the previous day's closing price in dollars
 - Price change from the previous day's closing price in percent
 - Daily high price
 - Daily low price
 - 52-week high
 - 52-week low
 - P/E ratio
 - Trading volume
 - 50-day price moving average
- View current news pertaining the retrieved stock
- View a daily price chart of the retrieved stock

5. Development Resources

This section describes hardware specifications, the software development tool-chain, and the version control system to be used.



5.1 *Hardware*

- System: Dell XPS L702X
- Processor: Intel Core i7-2630QM @ 2.00 GHz
- Operating System: 64-bit Windows 7 Home Premium (SP1)

5.2 *Software*

- NetBeans 7.1.2 IDE (build 201204101705)
- Android Development Toolkit (ADT version 20.0.3)
 - Android software development kit (SDK)
 - Android Virtual Device (AVD) Manager
- Kenai Project Android plugin for NetBeans (version 1.13) consists of the following components:
 - Android project
 - SDK Library
 - Android Core
 - LogCat
 - Android Grammars
 - Android
 - Android XML
 - Android Commons Library
 - AndroidPrefs
 - Android Ddmlib
- Android Test Runner for NetBeans 7.0+ (version 1.3)

6 *Scope*

This project will be confined to perform as specified in Section 4.

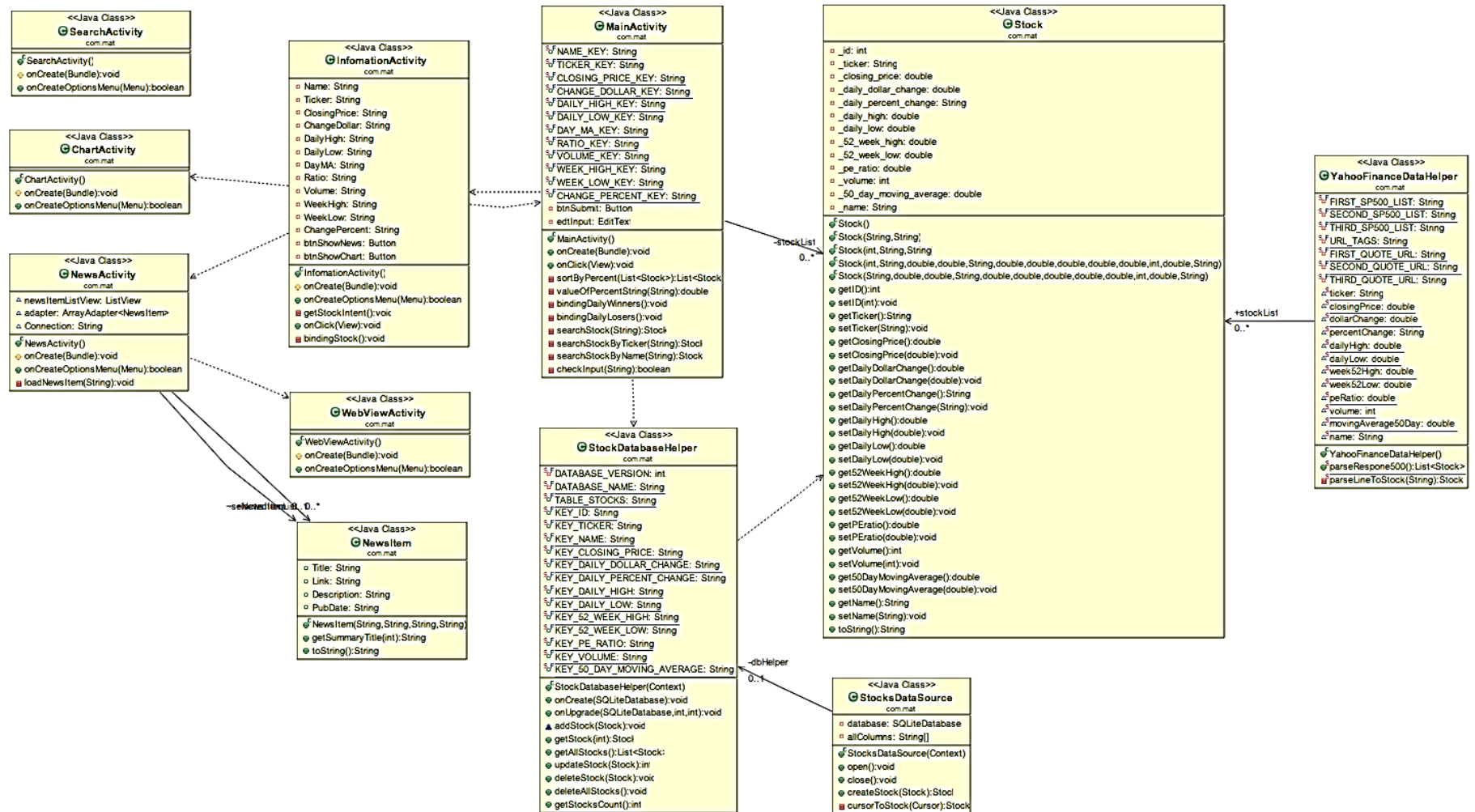
6.1 *Deliverables*

- All required source code to include Java class files and XML files, external library dependencies, and image files.
- An Android application package (.apk) file for installation onto an Android device.



6.12 *Milestones*

1. Project analysis to determine resource requirements
2. Designing Activity layouts and class requirements
3. Complete coding of classes and XML files
4. Complete and document functionality testing
5. Revise project documentation
6. Complete user's guide





3 Project Schedule

Task Name	Duration	Start	Finish	Predecessors	Resource Names
Android 2.3.3 Stock Quote Application Project	58 days	Fri 10/26/12	Sat 12/22/12		
Project Analysis	19 days	Fri 10/26/12	Tue 11/13/12		
Analyzing Requirements	6 days	Fri 10/26/12	Wed 10/31/12		Ash,Mat
Determine Financial Information Source	5 days	Tue 11/6/12	Sat 11/10/12	3	Ash,Mat
Peer Review	2 days	Sun 11/11/12	Mon 11/12/12	3,4	Ash,Mat
Document Revision	1 day	Tue 11/13/12	Tue 11/13/12	5	Mat
Project Design	4 days	Wed 11/14/12	Sat 11/17/12		
UML diagram	4 days	Wed 11/14/12	Sat 11/17/12	6	Mat
Application Design	24 days	Sun 11/18/12	Tue 12/11/12		
Activity Layouts	3 days	Sun 11/18/12	Tue 11/20/12	8	
Android Manifest	1 day	Mon 11/26/12	Mon 11/26/12	10	
SQLiteDatabase	3 days	Mon 11/26/12	Wed 11/28/12	10	Mat
Main Activity (Activity 1)	3 days	Sat 12/1/12	Mon 12/3/12	12	Mat
Stock Information Activity (Activity 2)	3 days	Tue 12/4/12	Thu 12/6/12	13	Mat
News Activity	3 days	Fri 12/7/12	Sun 12/9/12	14	Mat
Chart Activity	2 days	Mon 12/10/12	Tue 12/11/12	15	Mat
Implementation & Testing	19 days	Mon 11/26/12	Fri 12/14/12		
Coding	18 days	Mon 11/26/12	Thu 12/13/12		
Activity Layouts	2 days	Wed 12/12/12	Thu 12/13/12	16	
SQLiteDatabase	5 days	Mon 11/26/12	Fri 11/30/12		Mat
Main Activity (Activity 1)	3 days	Sat 12/1/12	Mon 12/3/12	20	Mat
Stock Information Activity (Activity 2)	3 days	Tue 12/4/12	Thu 12/6/12	21	Mat
News Activity	3 days	Fri 12/7/12	Sun 12/9/12	22	Mat
Chart Activity	2 days	Mon 12/10/12	Tue 12/11/12	23	Mat
Testing & Debugging	14 days	Sat 12/1/12	Fri 12/14/12		
Activity Layouts	1 day	Fri 12/14/12	Fri 12/14/12	19	Mat
SQLiteDatabase	1 day	Sat 12/1/12	Sat 12/1/12	20	Mat
Main Activity (Activity 1)	1 day	Tue 12/4/12	Tue 12/4/12	21	Mat
Stock Information Activity (Activity 2)	1 day	Fri 12/7/12	Fri 12/7/12	22	Mat
News Activity	1 day	Mon 12/10/12	Mon 12/10/12	23	Mat
Chart Activity	1 day	Wed 12/12/12	Wed 12/12/12	24	Mat
Assemble Final Deliverables Package	10.13 days	Thu 12/13/12	Sat 12/22/12		
Code Review	2 days	Thu 12/13/12	Wed 12/19/12	31	Mat
Test Data	0.5 days	Wed 12/19/12	Thu 12/20/12	33	Mat
Update Documentation	1 day	Thu 12/20/12	Fri 12/21/12		
Project Plan	1 day	Thu 12/20/12	Fri 12/21/12	34	Mat
Project Analysis	1 day	Thu 12/20/12	Fri 12/21/12	34	Mat
Project Design	1 day	Thu 12/20/12	Fri 12/21/12	34	Mat
Interface Control Document	1 day	Thu 12/20/12	Fri 12/21/12	34	Mat
Test Plan	0.5 days	Thu 12/20/12	Fri 12/21/12	34	Mat
User's Guide	1 day	Fri 12/21/12	Sat 12/22/12	35	Mat