



**SOUTHERN**  
UNIVERSITY COLLEGE

南方大學學院

## **BTIS3023 Practical Project I**

**Topic:**

**Cupid – A couple matching application**

By

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## Introduction

Nowadays ICT already develop into high technologies era, the rapid development of social network, even if people do not meet each other also can become friends. Social networks have become quite common, most people use Facebook, Twitter, Google+, and so on to making friends and sharing status and their own feeling.

Mobile hardware and software platforms allow running of faster and richer applications. The client application communicates with the server using Web services. So, I decided to use Web services as the communication method between the client application and the server in this project. All the information required will store in the database and using Web services to retrieve the data or information from the server. (POCATILU, 2010)

My project title is Cupid – a couple matching application, which is develop for all the social network user that wish to find friend or couple through social networking platform. This application allows the user to define their own matching criteria. This application is based on user criteria that set by user to help them to find their match mate. User are allow to send friend or date request to the person that match with them.

## Objective

### Project Objective

By developing this project we can achieve the objective below;

- To encouraged all the men and women to make new friends.
- To increase people's social network
- To improve user confidence against stranger.
- To let users find like-minded friends or couples.

### Personal Objective

I choose this topic because I would like to try to develop an application about social network. This is a big challenge to me, because social application have a large market. Of course, I also hope through develop this project can enhanced my Android development skill.

## Background Research

### Paktor - An Android application



As the application name Paktor means going on a date in Hokkien – a Chinese dialect. Paktor help people to connect nearby people who interested in. It's all anonymous until someone you like, likes you back. (Paktor, 2014)

This application works on a double blind concept. People only make an introduction when they like each other. When you like someone, that person will not know until he/she likes you back. This remove any tension cause by 'liking' someone for fear of rejection. (Paktor, 2014)

This application requires network connection and location services. This application also using Web service to retrieve data and information from Web servers. Location service is use for positioning to find the nearby people. This application may use following tool or technique MySQL, PHP, Android System Architecture (Location service) and Web service. Therefore, in my project I may use the same technology to improve the features.

One of the problem in this application is, the users need to wait someone they like, like them back. To continue to further action like chatting. But if the user didn't get any like from the people they like, then they are keep waiting for no guarantee.

## Methodology

### Iterative model

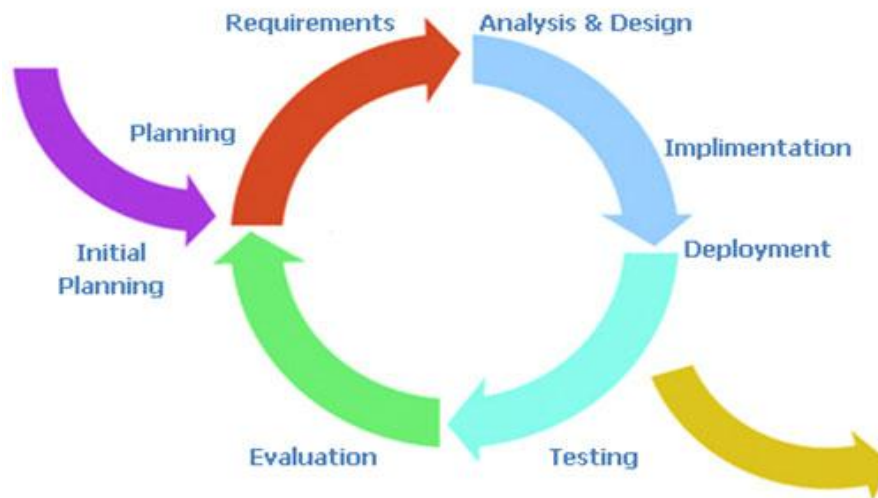


Figure 1 Iterative Model

In the iterative model the client does not have the complete requirements for the software to be developed. Where in the business analyst starts collecting the requirements and gives to the development team. Development team starts developing a portion of software and shows it to the client. (Larman, 2003)

Later client gives the feedback about the portion of the software and gives the further requirements. The process is repeated several times, by producing the new version of the software for each cycle of the model. (Larman, 2003)

The iterative model consists of five phases they are

- 1. Requirements:** A requirement phase involves in collection of requirements that are needed to develop the software for analysing. Requirements phase goes on until the complete requirements are gathered and analysed. Once the requirements are gathered for the first phase.
- 2. Design:** In design phase, as per the gathered requirements the designing takes place in order to give the best software product to the client. The design may include the previous projects design or new projects design whichever is feasible for the software development.
- 3. Implementation:** In the implementation phase, where in the coding of the software takes

place as per the requirements and design done in step 1 and 2.

**4. Testing:** After implementing the software, the individual modules are combined together to form an integrated software and testing phase starts from the scratch.

**5. Review:** In review process, the software developed is under evaluation, the available current requirements are reviewed and changed if necessary. If any additions are made to the current requirements they are taken to the next cycle implementation.

# Requirement Specification

## User Requirements

Identification of business process stage

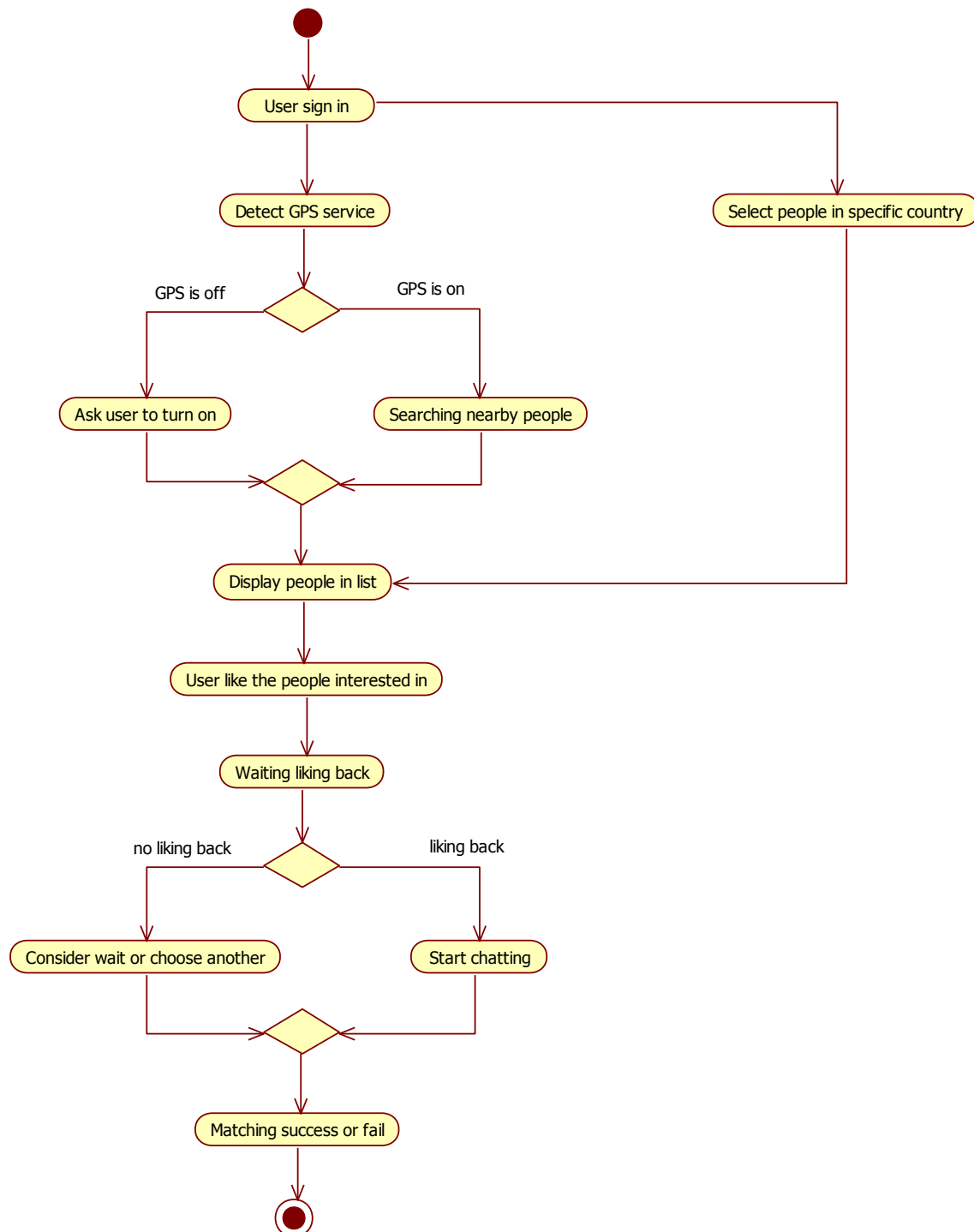


Figure 2 Activity diagram of existing application

## **Description**

Based on the diagram above, clearly state the process flow,

- User need to sign in to the application by register or using Facebook account.
- After sign in application would detect the GPS location service if is turned off will ask user to turn on.
- Is GPS location service is turned on, application will searching nearby people and display it in a list or stack.
- User also can change the searching criteria in the setting that is searching people in specific country.
- User may start to view the people and decide whether to like them or not.
- After user like the people their interested in, they need to wait them like back in order to do further action.
- If user got liking back, then user can start chatting with that person.
- The successfully of matching depend on the user not application or system.

## Analysis of problem and solution stage

### **A) Blind matching concept**

#### **a. Mismatching**

**Solution:** Require users to enter a matching criteria. Application based on the criteria entered by user to perform matching. This solution can improve the chances of successfully paired. When user find the people that have same interests and hobby, can help them to find the common topics.

### **B) Waste of resource**

#### **a. Waste time**

**Solution:** In existing application, user can't do anything until someone they like, like them back. So, in my application, users can send friend or dating request to the people they like. After the request is accepted, they can start chatting.





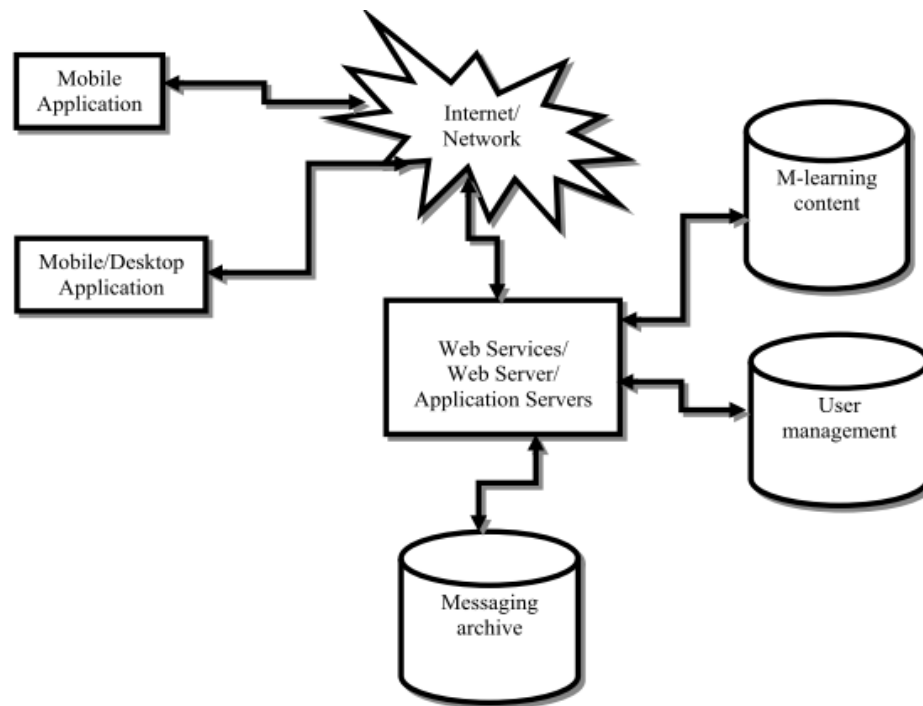
## Literature Review

In this part, I am going to explore the research related to my project that have been conducted by other academic previously. Cupid is an Android application which comprises Android System Architecture, PHP, MySQL and Web service. Android application is a kind of mobile application that running on Android platform.

Restaurant Finder, Is an application that running on Android platform and using location service to find nearby restaurant and using Web service to store and retrieve data. Below is the scenario:

Alice and her colleagues attend a conference taking place at a university. As the local cafeteria is said to serve low-quality food they decide to look elsewhere to grab something to eat. Time is short and hence Alice requests the service of a context-based restaurant finder. Using only the location as primary filter for restaurants nearby the university, the result set is too large for transmission and presentation. Therefore, the service calls back on Alice's device in order to find out about additional context data she likes to share. Luckily, her phone runs a profile sensor, which is capable of providing her preferences. With the information that Chinese is Alice's favourite dish the result set can be reduced to an acceptable size and the request can finally be answered? Further service-side enquiries for additional context data in case the result set is still too large can be imagined, e.g. information about the restaurants Alice ate at during the last month or the time left until her next appointment as scheduled in her calendar. (Bade & Puszies)

In this era of advanced cloud technology, most of the mobile application or mobile application developer decided to use clouding technology instead of local database e.g. SQLite in Android platform. Most the developer starting to use Web service to make the android device communicate to the Web server. Advantage of using online database instead of offline or local database is to save memory space, easy to restore and recover and centralize.



*Figure 3 Mobile Learning Application for Android Architecture*

One of most used architecture for mobile learning applications is Web based due to well-known technologies that are used. Usually, standalone mobile applications need that all the mobile learning content to be stored within the mobile device. Distributed mobile learning applications (including Web based) load and use the content when they need it. Distributed platforms have a similar architecture as Web-based platforms, but the client application is a rich application and not a simple mobile Web browser and the server is also different. The advantages of using this platform are: (POCATILU, 2010)

- Rich user interface;
- Support for multimedia content;
- E-learning content can be easily updated on the server;

### **MySQL**

MySQL is a database management system. A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. MySQL databases are relational. A relational database stores data in separate tables rather than putting all the data in one big storeroom. The database structures are organized into physical files optimized for speed. (Oracle, 2014)

### **PHP**

PHP stands for Hypertext Preprocessor. PHP is a general-purpose scripting language that is used in creating Web pages, and can be embedded in HTML code. PHP is an open-source program, which means it's available for free on the Web. PHP can also be used across many platforms, such as Linux, many variations of the UNIX system, Mac OS X and Microsoft Windows. PHP is a complete programming language and can be used for functions such as server-side scripting or writing desktop applications.

## Android System Architecture – Location Service

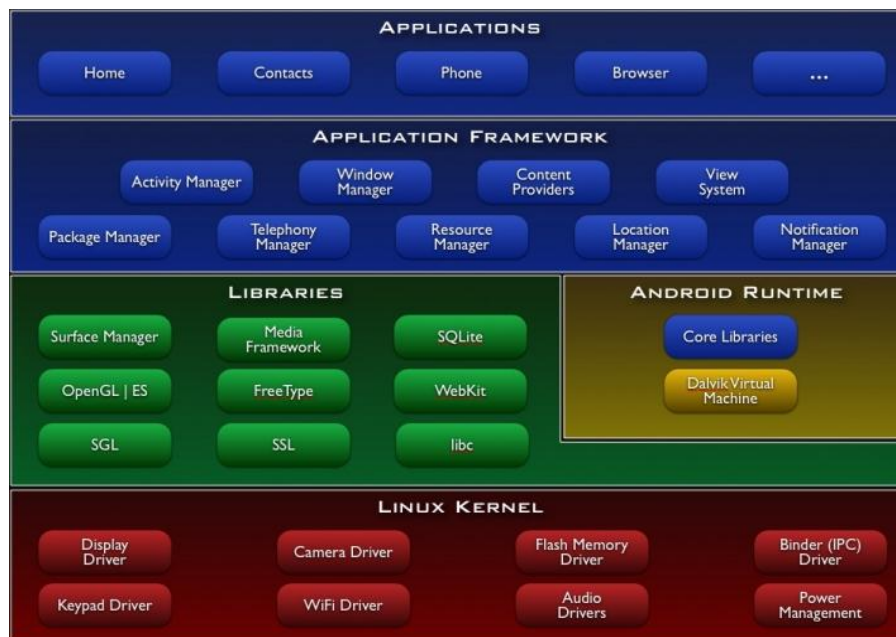


Figure 4 Android System Architecture

Android gives your applications access to the location services supported by the device through classes in the `android.location` package. The central component of the location framework is the Location Manager System service, which provides APIs to determine location and bearing of the underlying device (if available). (Android, 2014)

## Web service

Web services are services that are made available from a business's Web server for Web users or other Web-connected programs. Providers of Web services are generally known as application service providers. Web services range from such major services as storage management and customer relationship management (CRM) down to much more limited services such as the furnishing of a stock quote and the checking of bids for an auction item. (Web services, 2007)

## Project Scope

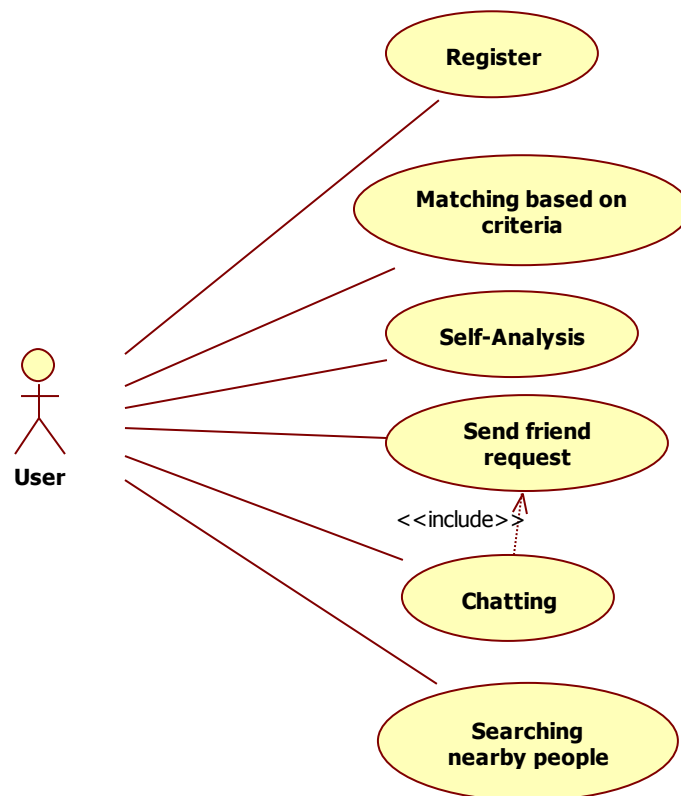


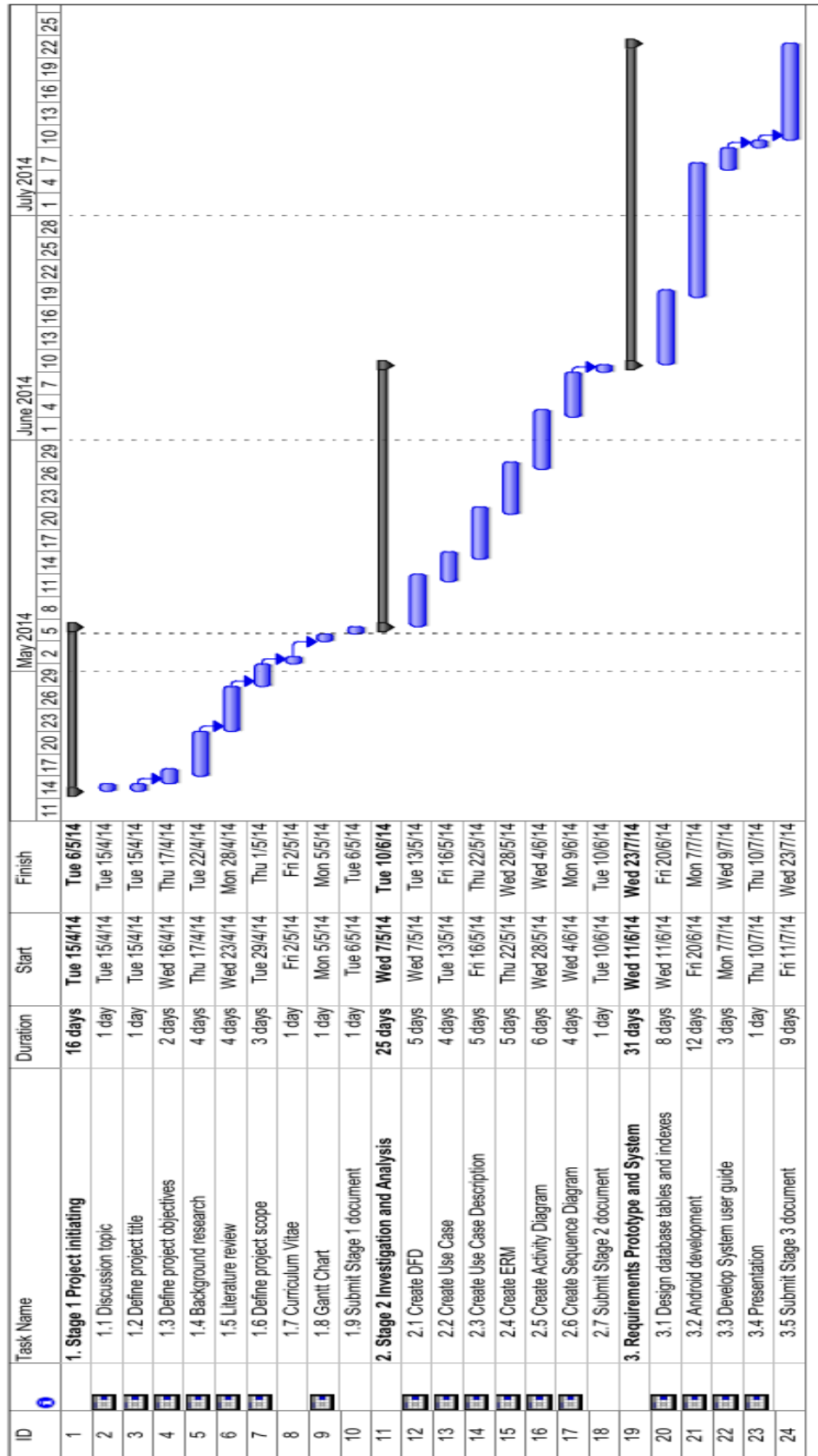
Figure 5 Use case diagram of Cupid – a couple matching application

The Cupid is an Android application that can run on the most of the Android device in the market. Based on the user requirement, I have decided to make an application social application similar to Facebook and others social application and adding some features like self-analysis, matching based on user criteria and send friend request after matching. First, users may need to register and enter the matching criteria in order to using my application. All the users information are secure and keep i

\t privately. Self-analysis is application will analyse the user criteria that entered to analysis how many people are match with his or her. Result will show in percentage and pie chart. Matching based on user criteria is the application will find the most suitable people based on the criteria inputted. And also can using the location service to find the nearby people based on the criteria. After matching result, users may decide to sending the friends request to the people they like. Users cannot view another people's profile information before he or she accept the friend request. If the people accepted the friend request, they may viewing the profile and start chatting.



## Project Schedule





## Curriculum Vitae

**YONG JIAN KEONG**

**CURRENT AND HOME ADDRESS**

11, JALAN MANGGA 19,  
TAMAN KOTA MASAI,  
81700 PASIR GUDANG,  
JOHOR.



**PERSONAL PARTICULARS**

<b>NRIC</b>	920817-01-6077
<b>AGE</b>	22
<b>NATIONALITY</b>	Malaysian
<b>RELIGION</b>	Buddhism
<b>LANGUAGES</b>	English, Malay and Mandarin
<b>SEX</b>	Male
<b>RACE</b>	Chinese
<b>HEALTH</b>	Excellent
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**EDUCATIONS**

**TERTIARY SCHOOL**

SCHOOL	Course	YEAR	RESULTS
Southern University College	Diploma in Computer Science	August 2010 – December 2012	CGPA: 3.63
Southern University College	Bachelor in Information Technology (Hons) in Software Engineering	September 2013 - Present	-

**SECONDARY SCHOOL (SPM)**

SCHOOL	YEAR	RESULTS
SMK Kota Masai	January 2005-November 2010	A(2), A-(2),B+(5)

## **ADDITIONAL INFORMATION**

### **PERSONALITY TRAITS:**

- **Practical and systematic** in completing task.
- **Cooperative and helpful** for team.
- **Able** to take challenges and risks.
- **Ready** and friendly to give full co-operation when work independently and in a team.
- **Committed** to work with a strong sense of urgency.

### **Communication Skills:**

- Spoken and write level (Best= 10 and Worst= 1)

Language	Writing Level	Speaking Level
English	3	3
Malay	3	3
Mandarin	6	6

### **Computer Skills** (Best= 10 – Worst= 1)

Software/Programming	Level
Microsoft Office Excel	5
Microsoft Office Power Point	5
Microsoft Office Word	5
Java Programming	7
Android Development	8
Visual Basic .Net	6

## **CO-CURRICULUM**

### **PARTICIPATIONS**

PROGRAM	POSITION	LEVEL	Year
Student Leadership Training	-	Southern College	2011
30 HOUR Famine	-		2011
Kick Boxing Society	General Affair	Southern College	2011
Dormitory Committee	General Affair	Southern College	2011
Department of Computer Science	Member	Southern College	2010-2012
Kung Fu Xanda Society	Secretary	Southern UC	2014
Department of Computer Science	Vice President	Southern UC	2014

## References

- Android. (2014). *Location and Maps*. Retrieved from Android Developer:  
<https://developer.android.com/guide/topics/location/index.html>
- Bade, D., & Puszies, R. (n.d.). *A Webservice-based Context Data Service for the Android Platform*. Hamburg, Germany: University of Hamburg, Department of Informatics Distributed Systems and Information Systems.
- Larman, C. (June, 2003). *Iterative and Incremental Development: A Brief History*.
- Oracle. (2014). *What is MySQL?* Retrieved from Oracle Corporation:  
<http://dev.mysql.com/doc/refman/4.1/en/what-is-mysql.html>
- Paktor. (2014). Retrieved from Paktor: <http://www.gopaktor.com/>
- POCATILU, P. (2010). *Developing Mobile Learning Applications for Android using Web Services*. Bucharest, Romania: Economic Informatics Department.
- Shu, X., Du, Z., & Chen, R. (n.d.). Research on Mobile Location Service Design Based on Android.
- Web services. (March, 2007). Retrieved from TechTarget:  
<http://searchsoa.techtarget.com/definition/Web-services>