Local Pet Minders

SCHOOL OF COMPUTING
NATIONAL COLLEGE OF IRELAND

Technical Report
LOCAL PET MINDERS

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BSHCE
YEAR 4
NETWORKING AND MOBILE TECHNOLOGIES
Declaration Cover Sheet for Project Submission

SECTION 1 Student to complete

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- suspending a student college for a specified time,
- expelling a student from college,
- prohibiting a student from sitting any examination or assessment,
- the imposition of a fine and
- the requirement that a student to attend additional or other lectures or courses or undertake additional academic work.
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Executive Summary

My final year project that I have chosen to develop is “Local Pet Minders”. The project is a native Android mobile application that allows working professionals and people in need with pets to post advertisements to connect with individuals who want to spend some time giving back by helping some furry companions. The idea behind this application is to allow pet owners to post advertisements with any description that they wish (e.g. dog walking, finding a local pet sitter, grooming etc). Both sets of users (minders and owners) can post pictures of their pets, post their own ads and start chats.

I see this application as being beneficial to: owners, minders, and pets. The owner can review profiles, connect and meet with the potential minders so as to become familiar with the minder. This method gives the owner the piece of mind they need so that they know their pet is in safe hands. Minders will be rewarded with self satisfaction, monetary gains or the gain of a new furry friend, depending on the type of advertisement. The owner’s pets will likewise benefit by having a new friend in their lives who can take them for walks and meet their own friends.

The application was build using Android Studio, the official IDE for Android development, Java programming language and PHP scripting language for MySQL database connection.

Introduction

Background

Most owners would agree that their pets are a part of the family. Just like myself, there are many pet lovers out there, who realise that getting a pet is a huge responsibility. I for one believe that it is unfair to not be able to have a pet or to have a pet and not be able to care for it correctly if you don’t have enough time. I would like this application to be able to help people who don’t have enough time or are too infirm for their pets to find people like me who would want to take good care of their pets for free. Based on the research I have completed and the survey that I have created I believe that there exists a demographic out there who would use this application however niche. Life is an unexpected series of events at the best of times; people have to travel, stay late in work or have urgent appointments. Local Pet Minders application will allow a pet owner to connect with genuine pet loving minders in their area on the go at any time.
The idea came to me to create Local Pet Minders when a colleague of mine was complaining about how hard it is to take their dogs to doggy daycare miles away from home and work every day. Each day he would repeatably state how great it would be if he could find something closer or someone who would come to his house. It was then that I realized that I was that person and to take it further I used the same idea for my final year project. I have decided to build an Android mobile application as Android phones own a majority of the current market share and because mobile development is something that I have never done before and that it would be a great opportunity to learn something new. I was involved in discussions with multiple people familiar with android mobile application development in order to gain the feedback regarding the idea and to help scope out time, resource planning and required skills. I conducted research to identify similar applications and web based solutions that are already out there. The functions of the application were developed based on the feedback and research that I completed. As a part of my research methodology, I have conducted an online survey and gathered feedback from people who are the demographic I wish to target (animal lovers) and who are not familiar with mobile application development. (See responses in Appendix)

![Worldwide Smartphone OS Market Share](http://www.idc.com/prodserv/smartphone-os-market-share.jsp)

**Aims**

The main aim of this project is to develop a mobile application that will allow users to register for free, browse advertisements, connect with other users and post pictures of pets. The application has to be easy to use, have a pleasant graphical user interface and provide a valuable service to its users. It will work on most modern Android devices with an appropriate spec.
Technologies

The application is developed using Android Studio and Java, I am using a free hosting server x10 hosting to store my databases, PHP is used for MySQL connection. I have decided to use PHP as I have experience in this methodology as my group and I used it in 2nd year software project. I have used documentation and tutorials provided by Google on the http://developer.android.com/training website in order to gain knowledge about Android development. Images and graphic elements in the application were created/edited using Adobe Photoshop.

System

Requirements
This section of a report contains requirement specification of Local Pet Minders mobile application.

Functional requirements
This section lists the functional requirements in ranked order. Functional requirements describe the possible effects of a software system, in other words, what the system must accomplish. Other kinds of requirements (such as interface requirements, performance requirements, or reliability requirements).

The main functional requirements I am going to focus on in this document are:

- Registration
- Login
- Post ads
- Browse ads
- Share pictures
- Browse Pictures
- Message - was removed
- Logout

Each requirement is be uniquely identified with a sequence number and a title.

Requirement 1 <Registration>
Description & Priority
Registration is the first requirement it allows new user to register in order to use the application.

Priority: 1

**Scope**
The scope of this use case is to allow the new user to register.

**Description**
This use case describes the registration of the new user.

**Use Case Diagram**
A new user clicks on “Register” button > Enters required details > clicks on “Register” button

**Flow Description**

**Precondition**
The system is idle.

**Activation**
This use case starts when a <User> clicks on “Register” button.

**Main flow**
1. The <User> selects the registration option
2. The system loads the registration screen
3. The <User> enters the details required for the registration
4. The system validates the email address
5. The <User> is successfully registered in the system
6. The system stores user's details.

**Alternate flow**
A1: <Validation fail>
The system throws an error asking to re enter details
The use case continues at position 2 of the main flow

**Exceptional flow**
E1: <User is already registered>
The system throws an error asking the user to login
The use case continues at position 2 of the main flow

**Termination**
The use case is terminated when the user is successfully registered in the system and the system stores user's details

**Post condition**
The user is registered

**Requirement 2 <Login>**

**Description & Priority**
This requirement allows an existing user to login in order to use the application.
Priority: 1

**Scope**
The scope of this use case is to allow the registered user to log into a mobile app...
Description
This use case describes logging into the mobile app

Use Case Diagram
Registered user clicks on “Login” button > Enters required details > clicks on “Continue” button

Flow Description
Precondition
The user is registered in the system

Activation
This use case starts when a <User> clicks on “Login” button

Main flow
1. The <User> select the login option
2. The system loads the login screen
3. The <User> enters the details
4. The system validates entered email address and a password
5. The <User> is logged in successfully

Alternate flow
A1 : <Validation fails>
The system throws an error asking to re enter the email address or a password
The use case continues at position 2 of the main flow

Exceptional flow
E1 : <User is not registered>
The system throws an error asking the user to register
The use case continues at position 2 of the main flow

Termination
The use case is terminated when the user is successfully logged in

Post condition
User is logged in

Requirement 3 <Post ads> (<Find minder> see GUI)
Description & Priority
This requirement allows an existing user to post ads that other users can browse
Priority : 1

Scope
The scope of this use case is to allow the logged in user to post ads

Description
This use case describes the ability of the registered and logged in user to post ads

Use Case Diagram
Logged in user clicks on “Post” button > Enters the advertisement > clicks on “Continue” button

Flow Description
Precondition
The user is logged in

**Activation**
This use case starts when a <User> clicks on “Create an ad” button

**Main flow**
1. The <User> selects the post option
2. The system loads a form for posting ads screen
3. The <User> enters the advertisement text
4. The <User> clicks on “continue” button
5. The ad is successfully posted

**Termination**
The use case is terminated when the user’s ad is online

**Post condition**
User’s advertisement is successfully posted

**Requirement 4 <Browse ads> (<Find a pet> see GUI)**

**Description & Priority**
This requirement allows an existing user to browse ads that other users posted
Priority : 1

**Use Case**
Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.

**Scope**
The scope of this use case is to allow the logged in user to browse ads

**Description**
This use case describes the ability of the registered and logged in user to browse ads

**Use Case Diagram**
Logged in user clicks on “Browse ads” button > The user can see ads that other users have posted

**Flow Description**

**Precondition**
The user is logged in

**Activation**
This use case starts when a <User> clicks on “Browse ads” button

**Main flow**
1. The <User> selects the browse option
2. The <User> is able to see ads that other users have posted
   
**Alternate flow**
A1 : <No ads to browse>
The system throws an error saying that no one has yet posted The use case continues at position 2 of the main flow

**Termination**
The use case is terminated when the user is able to see the ads
Post condition
The user is able to browse through posted ads

Requirement 5 <Share Pictures>
Description & Priority
This requirement allows an existing user to share pictures
Priority: 3
Scope
The scope of this use case is to allow the registered and logged in user to be able to share pictures they’ve taken while minding someone’s pet
Description
This use case describes the ability of the registered and logged to share pictures
Use Case Diagram
Logged in user clicks on “take a picture” icon > The system accesses the phone camera > The user is able to take a picture and upload it
Flow Description
Precondition
The user is logged in
Activation
This use case starts when a <User> clicks on “Take a picture” icon
Main flow
1. The <User> clicks the “Take a picture” icon
2. The system accesses user’s phone camera
3. The <User> is able to take a picture and post it
4. The system saves and posts a picture
Termination
The use case is terminated when user’s picture is saved and posted
Post condition
The user has successfully posted a picture

Requirement 6 <Browse Pictures>
Description & Priority
This requirement allows an existing user to browse pictures
Priority: 3
Scope
The scope of this use case is to allow the registered and logged in user to be able to browse pictures taken and shared by other users
Description
This use case describes the ability of the registered and logged to browse pictures
Use Case Diagram
Logged in user clicks on “Wall of happy pets” button > The system loads application gallery where other user’s pictures are displayed
**Flow Description**

**Precondition**
The user is logged in

**Activation**
This use case starts when a <User> clicks on “Wall of happy pets” button

**Main flow**
1. The <User> clicks the “Wall of happy pets” button
2. The system loads an activity with pictures
3. The <User> can browse through pictures that were posted by other users

**Termination**
The use case is terminated when pictures feed is loaded

**Post condition**
The user has successfully browse pictures

**Requirement 7 <Logout>**

**Description & Priority**
This requirement allows a logged in user to logout
Priority : 1

**Scope**
The scope of this use case is to allow the logged in user to logout

**Description**
This use case describes the ability of the logged in user to logout

**Use Case Diagram**
The user chooses the logout option > The user is logged out

**Flow Description**

**Precondition**
The user is logged in

**Activation**
This use case starts when a <User> clicks a logout button

**Main flow**
1. The <User> selects logout option from dropdown menu
2. The system logs the user out
3. The <User> is successfully logged out

**Termination**
The use case is terminated when the system logs the user out

**Post condition**
The system is idle

**User requirements**
This section of a report describes user requirements that are essential in order to use an application.
- **Android Device** - in order to use an application user must have an Android device with minimum API - 15 (IceCreamSandwitch 4.0.3)
- **Internet Access**
- **Google Play Store** - in order to use an application user will need to install it from Google Play, the application could be installed manually onto the device from a PC
- **Create an Account** - All users are required to create an account and log in before they can use an application

**Environmental requirements**

This section of a report describes environmental requirements that are essential for a development of Local Pet Minders application.

- **PC**
- **Latest version of Android Studio**
- **Android Virtual Device**
- **Internet Access**
- **Multiple Android devices for testing**
- **Adobe Photoshop**

**Usability requirements**

In order to be usable the mobile application user interface have to be intuitive and user-friendly. The server database is hosted on must be active.

**Implementation**

This section of the document describes the main functions of Local Pet Minders project.

**Main Activity**

The application starts with the Main Activity which is the Login / Registration Screen, from which a new user can choose to “Register” or “Login”. Selecting register would simply take you to a new activity Signup.class. Entering details to text fields and selecting logings will validate the details entered against details in the database using PHPTransactions.java and will throw an error if details are incorrect.
Registration Signup.class
In order to register users will have to fill out the following fields: Username, Email, Password, Confirm Password. Email input is validated to check if the character sequence entered complies as an email format.

```java
public boolean isEmailValid(String email) {
    String regExpn =
        "^((\w\-)+\.\.)+([\w\-]+\[[a-zA-Z]{1}\[\w\-\]{2,}\])@" +
        "((0-1)?[0-9]\{1,2\}\[25[0-5]|2[0-4]\{1,2\}\]|(0-9))\.(0-1)?" +
        "([0-9]{1,2}\[25[0-5]|2[0-4]\{1,2\}\]|(0-9))\.(0-1)?" +
        "([0-9]{1,2}\[25[0-5]|2[0-4]\{1,2\}\]|(0-9))\.(0-1)?" +
        "([a-zA-Z]+[\w\-\+]+[a-zA-Z]{2,4})$";

    CharSequence inputStr = email;
    Pattern pattern = Pattern.compile(regExpn, Pattern.CASE_INSENSITIVE);
    Matcher matcher = pattern.matcher(inputStr);

    if(matcher.matches())
        return true;
    else
        return false;
}
```

Password fields are validated in order to complete a check to confirm that the input in both fields match:
(pass1.getText().toString().equals(pass2.getText().toString()))

On the successful completion of the registration user gets an id assigned and his details are saved in database stored on the x10hosting sever.
Take Pictures SignIn.class

In order to store captured images in my database I encoded them to base64. I ran into multiple issues with the server and database I am using, the images were quite large and base64 output was too long (around 190000 characters per image) compressing the image after taking it was the solution to my problem.

```java
public Bitmap Resize(Bitmap bit)
{
    double ratio = (double)800 / (double)bit.getWidth();
    double newHeight = ratio * bit.getHeight();
    double newWidth = ratio * bit.getWidth();
    Log.d("New Values:", String.valueOf(newHeight) + " / " + String.valueOf(newWidth));
    return scaleBitmap(bit, (int)newWidth, (int)newHeight);
}
```

Bitmap bitmap;
try {
    bitmap = android.provider.MediaStore.Images.Media.getBitmap(cr, selectedImage);

    final String base64Image = encodeToBase64(Resize(bitmap), Bitmap.CompressFormat.JPEG, 80);
    Log.d("NewImageB64", base64Image);
}

Create Ads / View Ads

When creating an ad, the user has to input an ad type, location, contact, and content of an ad. Username field is populated automatically username.setText(sh.GetStringSetting("uUser", ";"));

Contact field requires a user to input a phone number, this was implemented to enable a function of contacting a user who created an ad, after a messaging functionality had to be removed. Clicking on ad with the phone number calls the phone activity from where user can select to call or message the number. If there is no number input in the ad, clicking the ad will notify a user that number is not available.
Testing

For the testing phase of the application’s development I put together a test script which I handed over to a Test Engineer to complete impartial testing. Once the testing was complete and the functionality was tested I requested feedback to help improve my application to ensure user friendliness. When the application was in the late stage and nearly finished I let multiple people to test it by completing the test case document. The reviews included in “Customer testing” section were left by people who completed the application testing.

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Steps</th>
<th>Expected Results</th>
<th>Status</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register</td>
<td>1. Open the Application&lt;br&gt;2. Press Register Button&lt;br&gt;3. Enter User Name&lt;br&gt;4. Enter Valid Email Address&lt;br&gt;5. Enter Password&lt;br&gt;6. Confirm Password</td>
<td>1. An account will be registered on the server&lt;br&gt;2. This account will be accessible from the application</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Log in</td>
<td>1. Enter Email&lt;br&gt;2. Enter Password&lt;br&gt;3. Press Log In</td>
<td>1. Incorrect Password&lt;br&gt;1. Details do not Exist</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Create an ad</td>
<td>1. Log in&lt;br&gt;2. Press the &quot;Create an Ad&quot; on the Home Page&lt;br&gt;3. On the &quot;Create an Ad&quot; screen select either minder or pet&lt;br&gt;4. Username is is autopopulated&lt;br&gt;5. Enter your location&lt;br&gt;6. Enter Ad description&lt;br&gt;7. Add Phone Number&lt;br&gt;8. Select Post button</td>
<td>1. An add will be generated on the server&lt;br&gt;2. This add will be able to be visible in the Browse Ads section of the application</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Browse Ads</td>
<td>1. Log in&lt;br&gt;2. Press the &quot;Browse Ads&quot; button&lt;br&gt;3. Refresh will update the list of ads&lt;br&gt;4. Select an ad to open up caller functionality</td>
<td>1. List of ads will be displayed&lt;br&gt;2. Refresh will update the list of ads&lt;br&gt;3. The phone activity will open&lt;br&gt;4. Users will be able to call or test the phone number</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Messaging</td>
<td>1. Log in&lt;br&gt;2. Press the &quot;Messages&quot; button&lt;br&gt;3. User will send message to another user&lt;br&gt;4. User will view a received message from another message</td>
<td>1. User to be able to send messages&lt;br&gt;2. User to receive messages</td>
<td>Fail</td>
<td>Messages section failed to open</td>
</tr>
<tr>
<td>Take Photo</td>
<td>1. Log in&lt;br&gt;2. Press the take photo button&lt;br&gt;3. Take a photo&lt;br&gt;4. Upload to the &quot;Wall of Happy Pets&quot;</td>
<td>1. User should be able to see photos that they upload onto the wall&lt;br&gt;2. User to see photos that other users have uploaded</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Browse Pictures</td>
<td>1. Log in&lt;br&gt;2. Press the &quot;Wall of Happy Pets&quot; button</td>
<td>1. Screen of uploaded photos will be displayed</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Log Out</td>
<td>1. Press the Home button&lt;br&gt;2. Press the Log Out button</td>
<td>1. Users will be redirected to the login on the server</td>
<td>Pass</td>
<td></td>
</tr>
</tbody>
</table>

As I ran into problems implementing “Messaging” I had to add the phone number field of the ad viewer, it was successfully tested by 3 people afterwards.
**Graphical User Interface (GUI) Layout**

In terms of layout design of a graphical user interface Android Studio offers a build in editor that allows you to drag and drop buttons, text fields, images etc into your application, the layout of the application can also be edited directly in XML file and previewed without compiling in Design view.

**Login/Registration Screen**

**Home Screen**
Customer testing

Couple of people I work with and know agreed to review Local Pet Minders. The application was not fully finished at that stage, but overall impression of the idea and design was positive.

Declan is 26, is currently working as a Test Engineer at Propylon. The application has good core functionality, but more functionality should be added to make it more interesting and interactive. More work needs to be done in adding the messaging functionality.

Jessica is 45, is currently working as a Product Support Specialist at Clavis. She liked the colors and how the app is trying to bring pets and people together. She would like to see the application like in the Google Play.
Meadhbh, is an old age pensioner with two dogs I met at the park. She likes how she can ask people to come and walk her pets for her as she sometimes cannot leave the house due to her old age. She would like it to be more user friendly so she can ask the same person each time instead of searching for people on a day to day basis.

Conclusions

The lessons that I have learned while developing the Local Pet Minders app are those that I believe will help me plan and execute the development process to a much higher level. It was a valuable experience and I am happy that I have picked Android, even though I had no prior experience with it. It was extremely challenging for me but I have learned a lot about mobile application development and I am planning to continue learning. The topic and idea of Local Pet Minders is very dear to me and is something I am highly passionate about which is why I enjoyed working on this mobile application and really wanted for it to succeed. All the functions I managed to implement were very challenging, even though the application is not very please aesthetically.

I am happy with the feedback I received from the target group of like-minded people, and friends as I believe that this application or a further iteration of it will really benefit them.

The biggest challenge for me was the implementation of the messaging system, time management and a lack of time to work on the project overall, I regret not starting coding earlier as I had to remove the messaging functionality completely right before handing in the project this was the biggest frustration.

Further Development

As a further development prospects I would like to go back and work on the messaging system implementation, work on adding more functionality as social network integration, functionality to add users as favourites and Google maps API to show pet’s location on a map. If the project is successful when published online, I would consider development of the IOS version and a web application.
References


Appendix

Project Proposal

Objectives and Overview

The primary objective of this project is to build a mobile application that will allow working professionals with pets post advertisements and connect with people that
want to spend some time with furry companions. The idea behind this application is to allow pet owners post advertisements of their choice (e.g. dog walking, finding a local pet sitter, grooming etc), pictures of their pets, let other users(minders) browse those ads and start chats with owners. This application could be beneficial to all: owners, minders, and pets. By reviewing profile, connecting and meeting with the potential minder, owner will get a piece of mind that their pet is in safe hands. Minder will be rewarded with self satisfaction or monetarily, depending on the type of advertisement. Pets will get more attention and exercise. Both owners and minders will be able to leave reviews and rate their experience.

- Application should have an easy to use and appealing interface
- Application should work on most modern Android devices with appropriate specs
- Users should be able to easily edit their profiles
- Application should give new messages alerts

**Background**

Most of the owners will agree that pets are a part of the family. Just like myself, there are many pet lovers out there, who would like to help people and take a good care of someone’s pets for free. Different situations happen sometimes, people have to travel, stay late in work or have urgent appointments, this application will allow a pet owner to connect with genuine pet loving minders in their area on the go. After conducting a research I was able to find a few web applications that have a similar functionality and offer a similar services.

**Current solutions**

After conducting research I was able to find a few web applications that have a similar functionality and offer a similar services.

*Some of them are:* Pawshake, Pet Sitters Ireland, BorrowMyDoggy

an overview of all three of them:

Pawshake - Pretty, clean website, no mobile app(at the time of the research), tried to register there: very long process of registration, you need to give your rate (how much money you want or willing to give) , get your profile reviewed and verified.

Sitters can’t search for pets.

Pet sitters Ireland - Not a very well designed website, no mobile app, confusing to use, if you want to sign up as a sitter you have to pass a face to face interview.

Sitters can’t search for pets.

BorrowMyDoggy - It’s a dog oriented service, I honestly would use it someday, the downside is that you have to pay a monthly membership free.
**Differences**
- Mobile app
- Free registration
- User don’t have to register as a pet owner

**Technical approach**

The main functionality of the mobile application:

- Sign up or Login
- Post ads / Browse ads
- Add pictures
- Instant messaging

**Technology**
Java, JavaScript, SQL, Android SDK, PHP.

**Human**
I will have to refamiliarize myself with the technologies listed above and evaluate if other technology will be required.

**Evaluation**

In order to evaluate the project, I will develop test cases and let multiple users test working application. Testers will have to follow the test case and leave comments that will be evaluated by me.

**Project Plan**
I used smartsheet to create my project plan that will be regularly updated.
Monthly Journals

Reflective Journal 1 - 06/10/2015
This month, I came up with the idea of Local Pet Minders for 4th year software project. The project proposal is submitted and I am currently in the process of writing a Requirement Specification and researching the technology I am going to use - Android Studio, PHP etc. So far it is going quite slow, I need a lot of learning to do, as mobile applications is not something I am familiar with. Even the installation of IDE took me hours, settings are quite confusing and I still haven’t figured out how to run a virtual Android device on my Mac, I might need to borrow a PC of someone.

Reflective Journal 2 - 06/11/2015
This month, I’ve conducted more research on the topic of my project. I am finished with the Requirement Specification document and almost finished with the overall GUI design expectations. I am using Photoshop to create icons/ buttons and editing images for application backgrounds, these images does not require licence so I don’t have to pay for them as long as I don’t use them in advertisement. I am following tutorials for Android development, reading documentation. So far I am finding it very useful but still unsure on how to mash it all up together. I am ran into multiple issues and was told there might be a problem because I am using Mac. I need to spend more time coding.

Reflective Journal 3 - 18/12/2015
All my work and focus is on the prototype for a mid point presentation. I have decided to go with free online server x10hosting.com to host my database on, this
might cause me problems in the future, but so far it is very easy to use and there’s no need of configuring the server. I have created a registration and login function for my application it wasn’t easy, I ran into million problems when tried to implement email validation even though it’s literally few lines of code. I will have to work more after the exam and over the holidays in order to implement more functionality as showing the login is not enough.

**Reflective Journal 4 - 04/02/2015**

All set for prototype presentation, I think I have enough to show and feel quite comfortable. I implemented the functionality of posting advertisements, all the ads are saved in the database and successfully return back in the application. Ads are created as an array with an ability to choose if you wish to look for a minder for your pet or a pet to mind, this could be useful in the future for filtering the ads. I’ve been focusing mostly on application prototype and forgot all about the report documentation, all core submissions are in the report, except Project Analysis & Design document, which according to moodle is 2%. Will try to work on my public speaking in the few following days as this is my biggest issue. I just stress myself out so bad that I forget everything I am talking about. Fingers crossed.

**Reflective Journal 5 - 04/03/2015**

I am shocked about the mark I received, taking into the consideration my classmates who didn’t have any prototype and received much higher grades. With all due respect to the examiner, my feedback from him on the day of the prototype presentation was not constructive, had a very rude manner and I was not asked a single question or given chance to defend myself. It is a learning process and I thought sessions like that should help you and guide you to a right direction, not leave you absolutely unmotivated and feeling unable to complete the course. I agree that I have to manage my time better but with all other module projects coming up and the exams I simply don’t have enough time for this project.

**Reflective Journal 6 - April - May**

Now that all my exams and projects are over I finally have time to get back to Local Pet Minders. Talking to my supervisor back after receiving my prototype presentation mark helped me a lot to set my goals and priorities straight. I have identified core functionality that I have to implement. Multimedia and Mobile Application Development module had helped a lot and as it was mainly focused on Android Development and our lecturer was able to help us cover more than was required from the course. Just like I predicted back in December, free hosting website was not the best decision to go for, while trying to implement camera functionality I ran into issue with converting pictures to Base64 and saving these in database, the size of the string was way too big for database to handle. I tried hosting my databases on DigitalColoud and even paid for it, but after a week of trying to configure the server I
realised that I am wasting my time and this is not going to work. I had to go back to the original database and after some more research and hours spent on stackoverflow I realised that reducing the size of image would reduce the size of the base64 string and it worked. The last few days I am spending trying to make messaging system to work with no errors and tidying up the design of the application.

Other Material Used
https://www.surveymonkey.com/r/Z6JYJN7

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Q2

Would you like to help someone else to look after their pet for money or for free?

Answered: 40   Skipped: 0

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Q3

Would you trust a nice person to look after your pet?

Answered: 40   Skipped: 0

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Q4

Do you know any free mobile applications that would help you to find a minder for your pet or would allow you to look for a pet to mind?

Answered: 39  Skipped: 1

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Q5

Would you use a mobile application described above?

Answered: 39  Skipped: 1

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