FARMSdatabase  
Cycle 3 Report

By

Michael Jones

Mack Bartus

Andrew Taylor

Michael Pace

Kara Born

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Samuel Ginn College of Engineering, Auburn University

Auburn, Alabama

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# **Executive Summary (System Metaphor)**

FARMSdatabase is a platform independent, mobile friendly web application that allows users to record and compare their livestock and its statistics to others, no matter the species. With an easy to use front end, users can keep track of their animal’s development from the day it’s born to the day it is brought to market. While users have the ability to maintain records of veterinary visits and other health records for each animal, they can additionally maintain financial records of their expenses and incomes, including clientele. As an all inclusive livestock management tool, FARMSdatabase provides users a means to maintain records of all of their animals, generate graphs and spreadsheets of their data over time, compare their data to other farms, and keep up-to-date contact lists of all they do business with.

# **Project Introduction**

As a research fellow within the College of Agriculture at Auburn University, Dr. Nada K. Nadarajah has been an investigator and statistical analyst to improve growth, production and quality of farm animals for over a decade. Currently, he researches swine, beef, cattle, and goats breeding and genetics. Specifically, his focus deals with genetic selection for growth, efficiency, and overall performance of genotypes in the species mentioned.

Through out the years, Dr. Nada has spearheaded many efforts to collect data on livestock generation in North America. From his experiences, Dr. Nada soon realized the increasing potential and profitability for software to manage livestock. After many previous attempts in providing a means for farmers to maintain records of their livestock, Dr. Nada eventually turned to Dr. Richard Chapman, associate professor within the College of Computer Science and Software Engineering at Auburn. By utilizing a senior design group, Dr. Nada hoped to develop a cross platform, mobile friendly web application for users to enter data about their livestock to then generate graphs and compare to others.

With an understanding that most farmers are not computer savvy, Dr. Nada hoped to provide users an easy to use portal to maintain biological, financial, and other health records. Through out the course of the 2015 Spring semester, Dr. Nada has worked closely with his senior design group to develop such a portal which they have named FARMSdatabase. With FARMSdatabase, users can enter data about their livestock, generate reports and graphs, compare their animals to others, maintain up-to-date contacts with clientele and more. Additionally, Dr. Nada will have administrative access to all farmers data to use for academic purposes. FARMSdatabase is a friendly to use, all inclusive livestock management tool and a must have for farmers. FARMSdatabase is expected to be released by May 2015.

## Previous Development

In the architectural spike, an iteration designed to delve into different tools and determine which best suits our needs, after weighing several options we decided to use Amazon Relational Database Services, Amazon EC2, ASP.net, Entity Framework, and and our domain name is FARMSdatabase.com. In the architectural spike, our primary goal was to create our initial website and tackle the majority of the database table design. We achieved both of these primary objectives. We hosted our website on FARMSdatabase.com and created 5 pages: Home, About, Contact, Log In, and Register. While the layout of these pages was not finalized, we were able to display sufficient information for a user to learn about the product and understand its use. The database design was built off of excel spreadsheets that our client had been using. The database design follows the pattern of aggregation.

In Cycle 1 the group’s primary objective was to create the pages seen by the user after login. We created a dashboard where, upon login, the user can select to manage animals, transactions, and associates. The user can create an animal, transaction, or associate and add it to his or her accounts. He or she can also edit or delete their previously entered data. We also created the preliminary comparison graphs that users will eventually use to view their data and compare it to the overall average of all users.

In Cycle 2 the groups primary objective was for users to be able to login and register for an account on FARMSdatabase.com. Dr. Nadarajah has the first and only admin account. His admin status allows him to create new admin accounts if he desires. Logged in users can Manage Animals by entering, editing, and deleting their animal information. This data will be saved to their account and visible upon on their next log in.

## Intent This Cycle

The focus this cycle was to show herd summaries to users as well as increase admin functionality. Dr. Nadarajah has the only admin account. His admin status allows him to edit the FAQ page, view all users, delete users, and edit the license agreement. Users can now view herd summary graphs, including Average Daily Gain and Average Weaning / Birth Weight (by breed), as well as Total/Active Animals, Total Offspring Born, Total Offspring Weaned, Mating and Birth Count, Birth Survival Rate, Dam Parity Count and Average Birth/Weaning Weight, and Multiple Birth Statistics (by all breeds). The user also has an Animal summary in the Manage Animals page, a Breeding summary in the Manage Breeding / Births page, and a Litter Information section on the View Births page under a Breeding. Users can also view a new tab called “Offspring Performance” and they can download all of their information to an excel sheet. There is also now a tutorial video on the front page.

## Future Work

In the future, Dr. Nadarajah might consider implementing the following features: support for new species (such as Sheep and Milk Goats) by adding in new breed lists for each, along with new forms and options to update Milk/Wool related field depending on species owned. He may also consider a “Country” field in the registration area to further sort breeds and units by countries. Most importantly, he could look into setting up a business PayPal account and integrating it into the system.

# **Requirements / User Stories**

**3.1** **Visit Public Pages:**

User will visit the website for the first time and be able to gather sufficient information on what the website is, why to sign up, who can sign up, how much it costs, how to get help, and how to sign up.

Cycle planned for completion: 1

Planned hours this cycle: 15

Total planned hours: 15

Status: In-progress

Actual hours this cycle: 10

Actual total hours: 17.5

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to navigate to site to find out more information

- Device/Computer: wants to establish connection with site

- Site: wants to display correct information depending on what page the user has selected

**Precondition:** The end user has successfully launched the site on their device/computer.

**Success Guarantee:** The end user visits our page on their device and navigates to each page.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The site successfully displays each page

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to visit the site

**3.2 New User Registration:**

User will be able to create account and login successfully.

Cycle planned for completion: 3

Planned hours this cycle: 5

Total planned hours: 20

Status: In-progress

Actual hours this cycle: 24

Actual total hours: 24

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to navigate to site to create an account and login

- Device/Computer: wants to establish connection with site

- Site: wants to create a new account for the user

**Precondition:** The end user has successfully launched the site on their device/computer.

**Success Guarantee:** The end user visits our page on their device and creates an account.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user navigates to the Registration page

5. The user creates an account

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

5a. The user creates a valid account

1. The site logs the user in and redirects to the Home page

5b. The user creates an invalid account

1. The site displays an error

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a new user wants an account on the site

**3.3 Users Views Compare Animal Graph:**

After a user enters multiple animals in his herd, he wants to see the average birth weight, weaning weight, and post-weaning weight for his herd.

Cycle planned for completion: 3

Planned hours this cycle: 5

Total planned hours: 20

Status: Completed

Actual hours this cycle: 5

Actual total hours: 7

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to navigate to site to compare information

- Device/Computer: wants to establish connection with site

- Site: wants to display correct information depending on what page the user has selected

**Precondition:** The end user has successfully launched the site on their device/computer, logged into his account, and has previously entered some information into the database about their herd.

**Success Guarantee:** The end user is able to easily view and understand their herd statistics compared to the average user.

**Main Success Scenario:**

1. The user navigates to the dashboard tab “Manage Animals”
2. The page for Manage Animals is loaded
3. The user selects the “Compare” button
4. The user is taken to a new page
5. The graphs are updated to reflect the average statistic and the user’s statistic.
6. The user hovers over the graph to see numerical values

**Extensions:**

\* At any time, the user may exit the browser

\* At any time, the user may log out of their account

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to view their animal statistics

**3.4 Input Information:**

User will visit website after signing up and want to input the data he/she gathered and have it be available for next time they are on the website.

Cycle planned for completion: 3

Planned hours this cycle: 10

Total planned hours: 25

Status: In-progress

Actual hours this cycle: TBD

Actual total hours: TBD

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to visit site in order to input gathered data

- Device/Computer: wants to establish connection with site

- Site: wants to send updates/stores to database to be recorded

- Database: wants to maintain record of changes made by the user

**Precondition:** The end user has successfully launched the site on their device/computer and signed into a valid account.

**Success Guarantee:** The end user visits our page on their device and stores information.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user inputs information and submits

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

4a. Valid login information

1. The site logs the user in and redirects to the Home page

4b. Invalid login information

1. The site displays an error

5a. Successful submit

1. The site stores the information in the database

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to visit the site

**3.5 Admin Managing**

Admin account will be able to view all data being gathered on the site as well as add, edit and delete data.

Cycle planned for completion: 3

Planned hours this cycle: 0

Total planned hours: 20

Status: In-progress

Actual hours this cycle: 0

Actual total hours: 0

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to be able to manage all other user accounts and the data stored on the site

- Device/Computer: wants to establish connection with site

- Site: wants to display all data from each user on the admin users dashboard

**Precondition:** The end user has successfully launched the site on their device/computer and signed into an admin account.

**Success Guarantee:** The end user visits our page on their device and accesses the admin dashboard.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user opens their dashboard and successfully views / manipulates data

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

4a. Valid login information

1. The site logs the user in and redirects to the Home page

4b. Invalid login information

1. The site displays an error

5a. User is an admin

1. The site displays the admin dashboard

5b. User is not an admin

1. The site displays the average user dashboard

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime an admin would like to visit the site and view, add, edit, or delete data.

**3.6 Admin creates another Admin**

User with admin status will visit website in order to create another account with admin

Cycle planned for completion: 2

Planned hours this cycle: 0

Total planned hours: 25

Status: Complete

Actual hours this cycle: 0

Actual total hours: 0

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User: wants to login and create another admin account

- Device/Computer: wants to establish connection with site

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into a valid account. The end user has admin privileges.

**Success Guarantee:** The end user visits our page on their device and creates a new account with admin privileges. When the newly created user logs on, they will have admin privileges.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user navigates to (what page?)

6. The user creates a new account with admin privileges

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

4a. Valid login information

1. The site logs the user in and redirects to the Home page

4b. Invalid login information

1. The site displays an error

5a. Successful submit

1. The site stores the information in the database

**3.7 User manages animals**

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and accesses the dashboard

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user opens their dashboard

6. The user selects “Manage Animals”

7. The user successfully views the index page

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

4a. Valid login information

1. The site logs the user in and redirects to the Home page

4b. Invalid login information

1. The site displays an error

5a. User is an admin

1. The site displays the admin dashboard

5b. User is not an admin

1. The site displays the average user dashboard

7a. User selects “Create Animal”

1. The site displays forms for filling out information

1a. The user selects “Submit”

1a. The user has not entered required information

1. The site displays an error message and prompts the user to enter the remaining information

1b. The user has entered required information

1. The site navigates back to index with the animal added to the list

1b. The user selects “Cancel”

1. The user is directed back to index

7b. User selects “Details” on a certain animal

1. The site displays forms for filling out information

1. The user selects “Back”

1. The user is directed back to index

7c. User selects “Edit” on a certain animal

1. The site displays forms filled with current animal’s information

1a. The user selects “Update”

1a. The user has not entered required information

1. The site displays an error message and prompts the user to enter the remaining information

1b. The user has entered required information

1. The site navigates back to index with the animal information updated

1b. The user selects “Cancel”

1. The user is directed back to index

7d. User selects “Delete” on a certain animal

1. The site displays the animal’s information

1a. The user selects “Delete”

1a. The site displays a modal asking for confirmation to delete

1a. The user selects cancel and the model disappears

1b. The user selects delete

1. The user is directed back to index with the animal removed

1b. The user selects “Cancel”

1. The user is directed back to index

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to manage their animals

Cycle planned for completion: 3

Planned hours this cycle: 0

Total planned hours: 20

Status: In-progress

Actual hours this cycle: 0

Actual total hours: 0

**3.8 User manages transactions**

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and accesses the dashboard

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user opens their dashboard

6. The user selects “Manage Transactions”

7. The user successfully views the index page

**Extensions:**

\*At any time, the user may exit the browser

3a. Home is selected

1. The site navigates to Home page

2. The site displays information pertaining to [what?]

3b. About is selected

1. The site navigates to About page

2. The site displays information pertaining to [what?]

3c. Contact is selected

1. The site navigates to Contact page

2. The site displays information pertaining to [what?]

3d. Register is selected

1. The site navigates to Register page

2. The site displays information pertaining to [what?]

4a. Valid login information

1. The site logs the user in and redirects to the Home page

4b. Invalid login information

1. The site displays an error

5a. User is an admin

1. The site displays the admin dashboard

5b. User is not an admin

1. The site displays the average user dashboard

7a. User selects “Create Transaction”

1. The site displays forms for filling out information

1a. The user selects “Submit”

1a. The user has not entered required information

1. The site displays an error message and prompts the user to enter the remaining information

1b. The user has entered required information

1. The site navigates back to index with the transacation added to the list

1b. The user selects “Cancel”

1. The user is directed back to index

7b. User selects “Details” on a certain transaction

1. The site displays forms for filling out information

1. The user selects “Back”

1. The user is directed back to index

7c. User selects “Edit” on a certain transaction

1. The site displays forms filled with current transaction’s information

1a. The user selects “Update”

1a. The user has not entered required information

1. The site displays an error message and prompts the user to enter the remaining information

1b. The user has entered required information

1. The site navigates back to index with the transaction information updated

1b. The user selects “Cancel”

1. The user is directed back to index

7d. User selects “Delete” on a certain transaction

1. The site displays the transaction’s information

1a. The user selects “Delete”

1a. The site displays a modal asking for confirmation to delete

1a. The user selects cancel and the model disappears

1b. The user selects delete

1. The user is directed back to index with the transaction removed

1b. The user selects “Cancel”

1. The user is directed back to index

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to manage their transactions

Cycle planned for completion: 2

Planned hours this cycle: 0

Total planned hours: 20

Status: Complete

Actual hours this cycle: 0

Actual total hours: 0

**3.9 View User**

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and views another user’s information.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user navigates to their dashboard.

6. The user selects view all users.

**Extensions:**

\*At any time, the user may exit the browser

4a. The user logs into an admin account.

1. continue

4b. The user logs into a regular account.

1. log out and log into an admin account

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime an admin would like to view users.

Cycle planned for completion: 3

Planned hours this cycle: 10

Total planned hours: 10

Status: In-progress

Actual hours this cycle: 8

Actual total hours: 8

**3.10 Delete User**

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and deletes a user’s account.

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user navigates to their dashboard

6. The user selects View All Users

7. The user clicks Delete beside another user’s account

**Extensions:**

\*At any time, the user may exit the browser

4a. The user logs into an admin account.

1. continue

4b. The user logs into a regular account.

1. Log out and log into an admin account.

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime an admin would like to delete a user.

Cycle planned for completion: 3

Planned hours this cycle: 10

Total planned hours: 10

Status: In-progress

Actual hours this cycle: 5

Actual total hours: 5

**3.11 Generate Excel**

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and downloads an excel file of their herd information

**Main Success Scenario:**

1. The user opens web browser

2. The user navigates to “<http://farmsdatabase.com/>”

3. The user successfully connects to the site

4. The user logs in

5. The user navigates to their dashboard

6. The user selects Generate Summary

7. The user selects Export to Excel

**Extensions:**

\*At any time, the user may exit the browser

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to get an excel sheet of their data.

Cycle planned for completion: 3

Planned hours this cycle: 10

Total planned hours: 30

Status: Complete

Actual hours this cycle: 15

Actual total hours: 15

**3.12 Offspring Performance**

The user wants to view his herd’s average daily gain for weaning and post-weaning age.

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Success Guarantee:** The end user visits our page on their device and accesses the dashboard

**Main Success Scenario:**

1. The user navigates to the dashboard

2. The user selects “Offspring Performance” on the dashboard

3. The user is taken to a new page

4. The user can view, search, and reorganize his data

**Extensions:**

\*At any time, the user may exit the browser

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to view their average daily gain

Cycle planned for completion: 3

Planned hours this cycle: 0

Total planned hours: 20

Status: Complete

Actual hours this cycle: 0

Actual total hours: 0

**3.13 Admin Edits FAQ Page**

An admin user would like to add, edit, or delete a questions on the FAQ page

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Main Success Scenario:**

1. The admin navigates to the dashboard

2. The admin selects “Edit FAQ’s”

3. The admin selects “Create New”

4. The admin enters a question and answer

5. The admin selects save

6. The new question and answer are posted on the public FAQ page

**Extensions:**

\*At any time, the user may exit the browser

3a. The admin selects “Edit” on an existing FAQ

1. The admin edits the question and answer

2. Continue step 5.

3b. The admin selects “Delete” on an existing FAQ

1. The FAQ is deleted

2. The FAQ public page is updated to reflect the change

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to view their average daily gain

Cycle planned for completion: 3

Planned hours this cycle:15

Total planned hours: 20

Status: Complete

Actual hours this cycle: 15

Actual total hours: 15

**3.14 Admin Edits License Agreement**

The admin wants to update the license agreement

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Main Success Scenario:**

1. The admin navigates to the dashboard

2. The admin selects “Edit License Agreement”

3. The admin is taken to a new page where the current agreement is displayed

4. The admin makes changes

5. The admin selects save

6. The license agreement is updated to reflect the changes

**Extensions:**

\*At any time, the user may exit the browser

5a. The user selects “Cancel”

1. The user is returned to the dashboard

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to view their average daily gain

Cycle planned for completion: 3

Planned hours this cycle:15

Total planned hours: 20

Status: Complete

Actual hours this cycle: 15

Actual total hours: 15

**3.15 User Views Transaction Graphs:**

The user wants to view a graphical summary of his transactions

**Scope:** Mobile Device/Computer

**Level:** User-level goal

**Primary Actor:** End user

**StakeHolders:**

-End User:

- Device/Computer:

- Site:

**Precondition:** The end user has successfully launched the site on their device/computer and signed into their account.

**Main Success Scenario:**

1. The user navigates to the “Manage Transactions”

2. The user selects “Compare”

3. The user is taken to a new page

4. Graphs are displayed showing the user’s transaction data

**Extensions:**

\*At any time, the user may exit the browser

**Special Requirements:**

- Device/computer has connection to internet

**Frequency of Occurrence:** Anytime a user would like to view their average daily gain

Cycle planned for completion: 3

Planned hours this cycle:15

Total planned hours: 20

Status: Complete

Actual hours this cycle: 15

Actual total hours: 15

# **Design Documentation**

**4.1 Design Decisions**

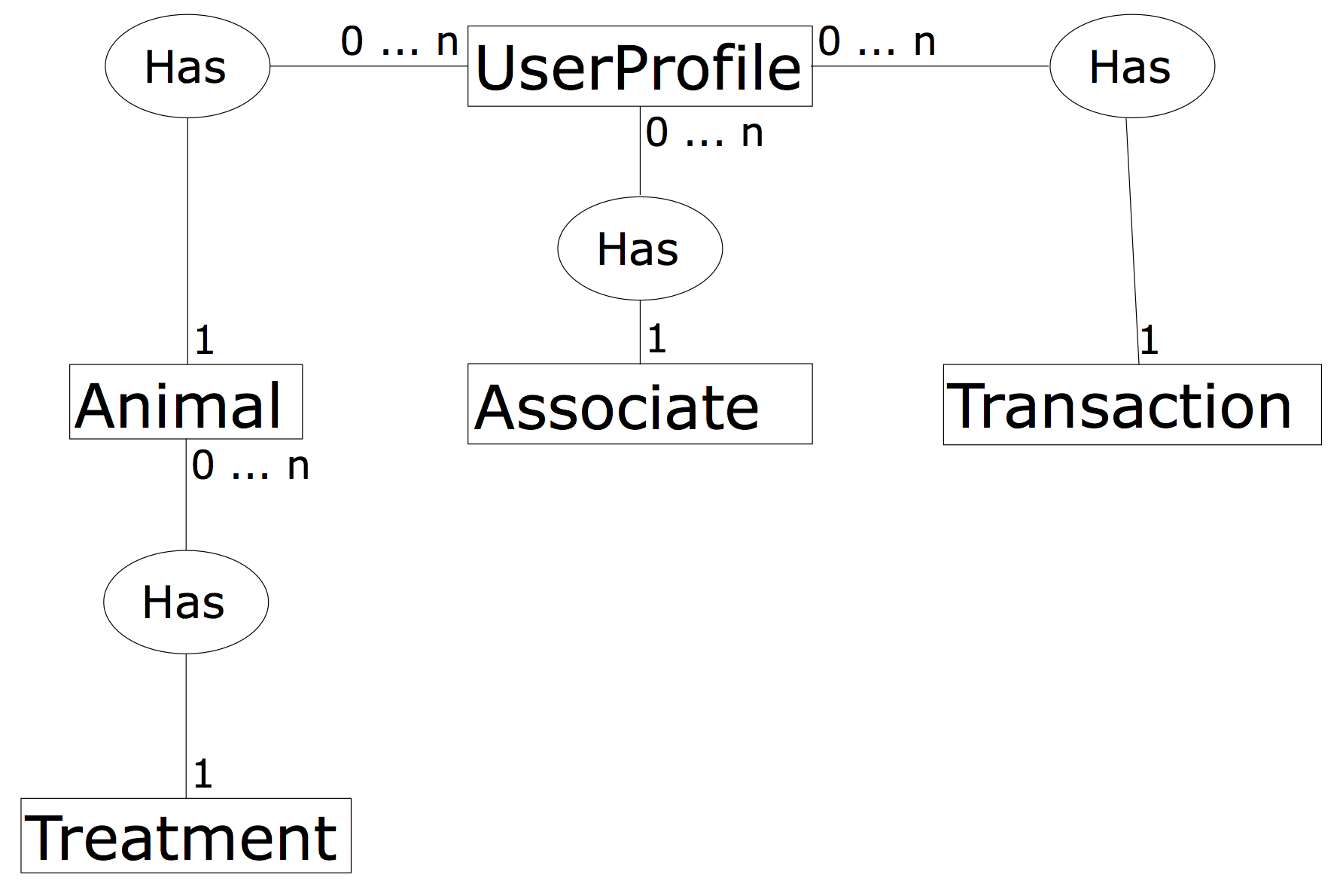
The tools for our project include an ASP.NET web application using MVC on Visual Studio, entity framework, bootstrap, and Amazon Web Services. The decision to use ASP.NET with MVC came mostly from our personal experiences with website development. ASP.NET was the only tool our group had experience with. An alternative possibility would have been Ruby on Rails, however given our lack of experience, we ultimately decided on using ASP.NET. The decision to use bootstrap come from our client’s specific request for platform independence, specifically on tablet devices. Bootstrap is a framework for web applications that focuses on mobile-first design, without comparable competition. Our decision to use Amazon Web Services (free tier) came from the initial free period without cost as well as the suite of Amazon tools (including EC2 to host the website and Amazon RDS to manage the database). Alternatively we considered using Appharbor but we wanted a reliable name as well as ensured database integration.

Our database will be stored on Amazon’s Relational Database service. Although Google Cloud SQL was a strong alternate choice, RDS was chosen naturally with Amazon Web Services for smooth integration with Amazon’s other tools. Our choice to use Entity Framework to create our database came from easy integration with ASP.NET. While initially we thought to use PostgreSQL, we soon realized that integration with ASP.NET would be too tedious and would require many third party libraries with limited documentation. Instead we decided on Code First with Entity Framework, a built in database tool with the .NET libraries, which allows users to write object oriented classes to then be built into database tables.

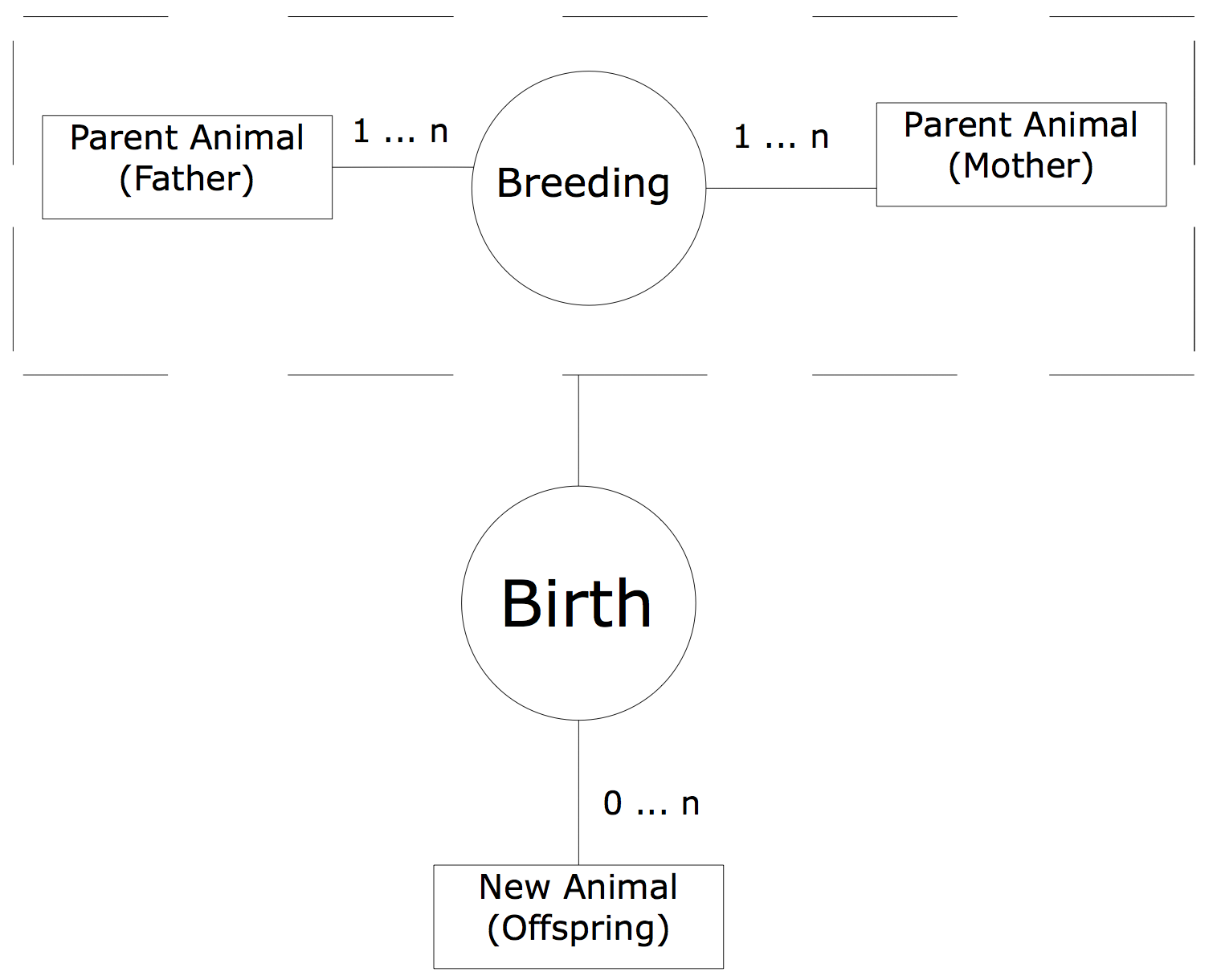
Knowing how we wanted to build our database, we then tackled how to design our tables. Dr. Nada had his own database set up with a website called iFreeTools.com. Here, he built a number of spreadsheets for users to enter their data for their farms and herds. By closely matching these spreadsheets, we were able to come up with a database design that was generic and could be used for not just goats but all types of animals.

The specific table layout of our database can be seen in the diagram below.

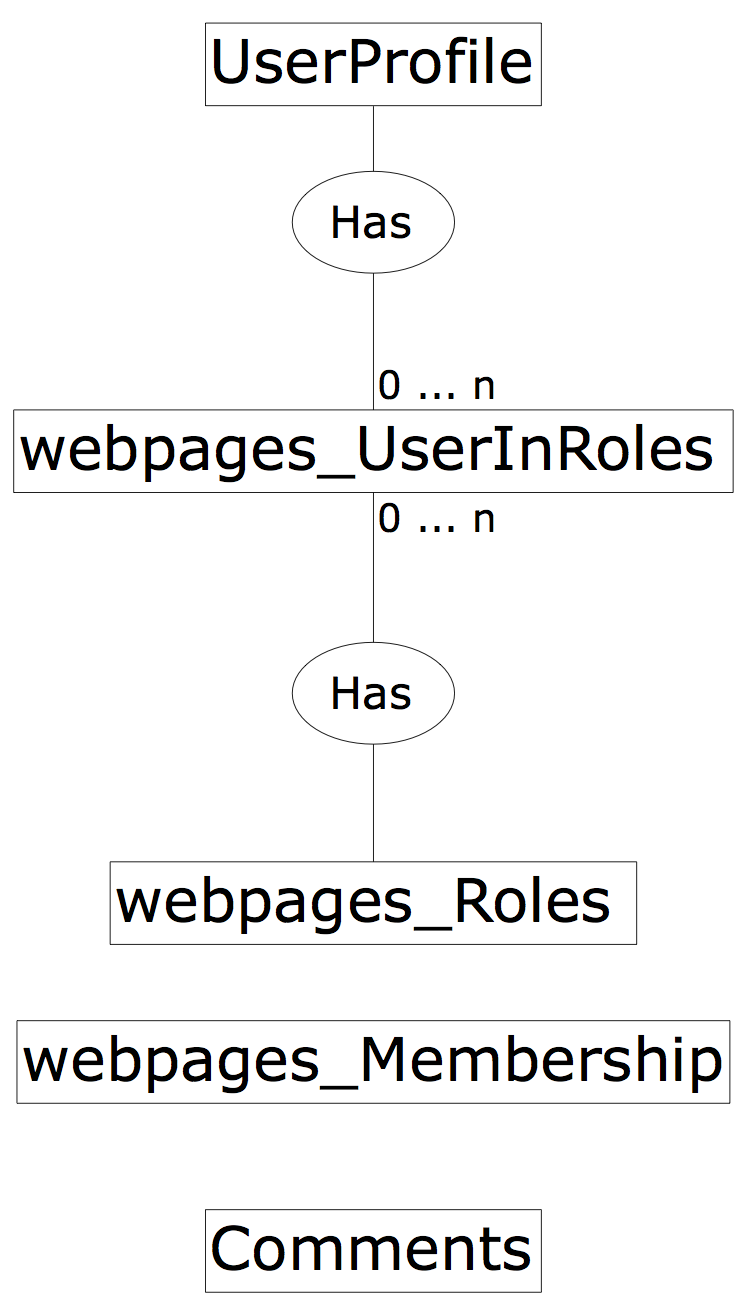
**Figure 1 - UserProfile and all of it’s relationships**



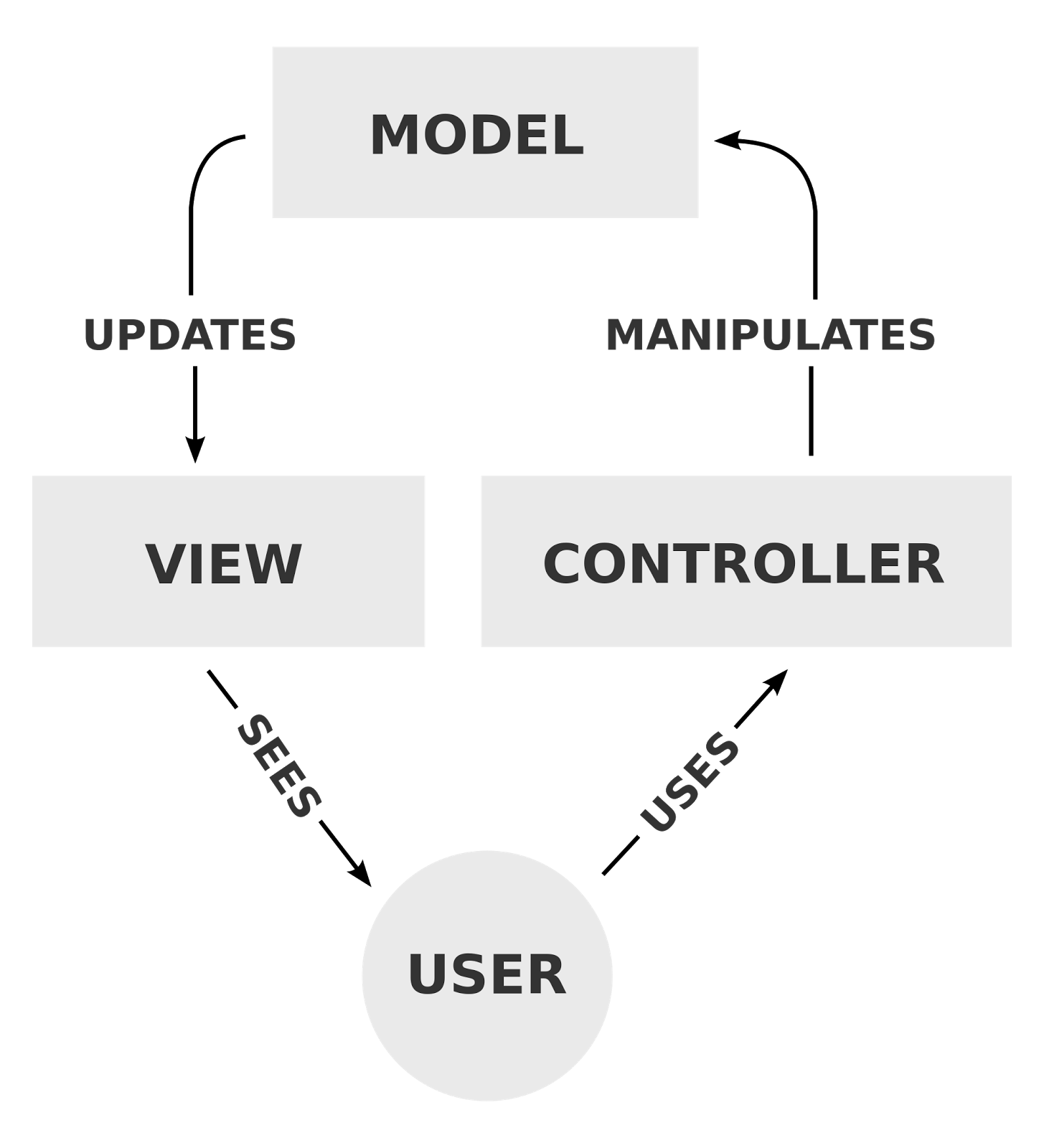
**Figure 2 - Breeding a new Animal.**



**Figure 3 - Comments, Admin Accounts and Password storing.**



**4.2 Design Explanation**

Before explaining how our project connects to the internet, it is important to explain how our project itself works. MVC is a popular architecture that includes a Model, View, and a Controller. As the following figure shows, the user interacts with multiple controllers to manipulate the model which updates the view that the user sees. In our case, the controllers are C# code in our program that represent an entity in the database, the model is our Amazon RDS instance which hosts a SQL Server database, and the views are web pages using the razor view engine that the user sees in cshtml. We are using entity framework so creating the controllers and views are extremely easy. When creating a controller, entity framework will generate basic C# code to update the model and will also create the corresponding views (Create, Index, Edit, Delete, Details).

Our project is then published directly into Amazon’s EC2 web tool that hosts our code. EC2 hosts our project (which includes the model, view and controller) while RDS specifically hosts the information that fills out the model, or database, referenced by our project.

4.3 Models

The model in MVC is where all of the data is kept. The database has already been designed and can be viewed/changed using Microsoft SQL Server. The model can be easily seen by going to the “Model” folder in the solution explorer and then opening the .edmx file. The model is connected to the project in the web.config file under connectionStrings. The only other items in the “Model” folder are metadata and view model files (both are written in C#). The metadata files are used for setting display names, field requirements (style, range…), and if the field is required or not. The view model files are used for representing Model values in a certain view. The view model values are set in the controller (we will get to more about this later). All database tables are represented as models using entity framework, if they need to be modified at all, then that’s when a view model is needed instead of a metadata.

4.4 Views

The views are what the user actually sees. The views are coded in HTML, CSS, Javascript/Jquery, and Razor to access the model in the view. The views can be found in the solution explorer in the “Views” folder. The views are separated into the different controllers. For example, the view in the folder Views/Animal/Edit corresponds to the URL [www.farmsdatabase.com/Animal/Edit](http://www.farmsdatabase.com/Animal/Edit) and it useds the function Edit() in the Animal controller. The Shared folder holds the layout and error pages. At the top of the view you can see if there is a model used. For example:

@model goatMGMT.Models.Animal

uses the Animal model. You can also see which layout page is used. For example:

@layout “Views/Shared/\_layout.cshtml”

uses the standard layout page for the site. The views are relatively simple (HTML, CSS, Javascript can all be found online) except for when you need to reference the model in the view. In the example above where the page uses the Animal model, to reference the tag field of an animal:

@Model.tag

4.5 Controllers

Controllers are what are used to transfer information from the model to the view. The controllers can be found in the “Controllers” folder; so far a controller has been created for each table in the database. Each action (method) in a controller corresponds to the URL. For example, the index() action in the animal controller returns the URL www.farmsdatabase.com/Animal/Index. However, some actions such as logout() return a different review using Return redirectToAction(). In each method, if the corresponding view uses a view model, this is where the view model data needs to be set. For each view that has a form (create, edit, delete) needs to have two different methods, one being a [HttpGet] and the other being a [HttpPost]. The [HttpGet] is called when the form is first being displayed and the [HttpPost] is called when the form is being submitted. In the [HttpPost] if any database changes have been made the database needs to be saved and entity framework needs to know what has changed. For example:

If your [HttpPost] method modifies the database (animal) then your code would look something like this:

db.Entry(animal).State = EntityState.Modified;

try

{

db.SaveChanges();

}

catch

{

return RedirectToAction("Error", "Home");

}

In order for a view to only be accessible after a user is logged in, above the action or entire controller [Authorized] can be used. If only a certain role can access an action, [Authorized(Roles=”admin”)] can be used.

4.6 Other Components

In the solution explorer you will see several other items other than models, views, and controllers. For example, the “Content” folder contains referenced images, and style sheets that are used in the site. In the “Scripts” folder, there are all of the referenced jQuery and JavaScript files that are used. In the packages.config file, all of the referenced packages are named and their versions. In the global.asax file you will see the bundles that are included (bundles are located in AppStart/BundleConfig), you will also see where the simple membership database tables were initially created. You will also see the web.config which contains the connection strings, simple membership settings, along with some package information and other app settings.

# **Management Plan**

## Tasks Under Development

Generate summaries to show herd graphs (View Graphs)

Download excel sheet with herd data (Generate Excel)

Create a video for home page (View Video)

Admin functionality to edit FAQ (Edit FAQ)

Admin functionality to edit License Agreement (Edit License Agreement)

Admin functionality to view users (View User)

Admin functionality to delete users (Delete User)

Offspring performance page (Offspring Performance)

## Task Assignments

Michael Pace: Database, Testing, Videos

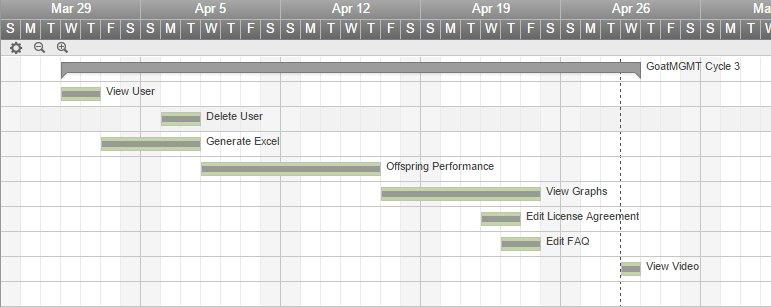
Mack Bartus: Admin Functionality, Preliminary Graph Work

Michael Jones: Graphs Accuracy and Improvements, Public Pages, Dashboard

Kyle Taylor: Graphs Updating and Organizing, Excel

Kara Born: Graph Testing

## Development Schedule



## Planned Code / Feature Freeze

April 26th, 2015 at 11:59pm.

# **Risk Mitigation**

We did not have to mitigate any risks because we have yet to identify any risks.

# **Test Plan and Test Procedures**

## Test Plan

Since only one of us had previous experience developing web applications we knew testing would be important. We split the testing up into a few different sections: Functional testing, Usability testing, Compatibility testing, and Security testing. There is no required order that these tests need to be performed in so we usually test in the order that they are completed.

Functional testing consists of checking all of the links, testing the forms, and database testing. To check all of the links we simply went through the site to make sure that all links went to the correct URL. We also tested to see if there were any orphan pages (pages that cannot be viewed unless exact URL is known). For the forms we would test the validation on each field (if there needed to be default values), and also looking at the corresponding details, edit, and delete forms. We also tested all of the graph information we were displaying to ensure we had correct calculations.

Usability testing includes testing for navigation, content, and other helpful user information. Testing for navigation is looking at how easy it is to navigate the site. This was a big part of our testing since we had to take into account that the majority of our users are not technically inclined. We also test the content of the site by confirming with our sponsor that the information is accurate and also by looking for spelling errors. The other things that we included in usability testing are testing search functions and help content is easy to reach.

Compatibility testing is looking into different browsers and confirming that each browser interprets our code the same. Visual studio has a great feature of being able to launch into debug mode using many different browsers. Also, thanks to bootstrap, we know our mobile views will look to scale, but we still test it to make sure it is what we are looking for. So far we have not run into any issues with browser compatibility. We have done a good job at choosing frameworks and plugins that are supported by all browsers.

Security testing is a very important section because we want to protect the users data and also the integrity of the site content. We have not had to do any of this yet because user accounts have not been implemented.

## Test Procedures

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Required Actions | Expected Results | Comments | User Story | √ |
| 1 | Go to farms database.com | Homepage is displayed |  | Visit Public Pages | √ |
| 2 | Click to About Page | About page is displayed |  | Visit Public Pages | √ |
| 3 | Click the Pricing page | Pricing page is displayed |  | Visit Public Pages | √ |
| 4 | Click the Contact Page | Contact page is displayed |  | Visit Public Pages | √ |
| 5 | Click the Register Page | Register page is displayed |  | New User Registration | √ |
| 6 | Click the Login page | Login page is displayed |  | User Logs In | √ |
| 7 | Click the FAQ page | FAQ page is displayed |  | Visit Public Pages | √ |
| 8 | Enter invalid data in a herd management page | Error modal is displayed |  | Input Information | √ |
| 9 | Enter valid data in a herd management page | Data is stored in database |  | Input Information | √ |
| 10 | Navigate to an admin page | Go to admin page is user is admin, else show error |  | Admin Managing | √ |
| 11 | Admin types in new License Agreement and submits | License agreement is updated |  | Admin Edit License Agreement | √ |
| 12 | Admin adds new FAQ elements and submits | FAQ page is updated |  | Admin Edit FAQ | √ |
| 13 | User presses “Export to Excel” | An excel page is downloaded |  | Generate Excel | √ |
| 14 | User navigates to “Generate Summaries” page | Graphs are displayed with accurate information |  | User Generates Summary Report | √ |

# **Lessons Learned**

Our first lesson learned is that a Microsoft SQL Server database can be managed without a windows machine. Our DBA was able to use Oracle’s SQL Developer to submit changes to our database on OSX as needed. Additionally, this piece of software runs on Linux and other operating systems.

Our second lesson learned deals with the importance of peer review. Rather than “cowboy coding,” or working on a feature by oneself and committing new code to our master branch, peer review adds a necessary depth to quality control and assurance. In this cycle, we realized the importance of conducting peer reviews as new features were developed to ensure easier integration down the road. This helps solidify what features are “done” and requires each member to understand how the code base works.

Our third lesson learned deals with our feature creep. This cycle we experienced giving “unrealistic expectations.” A common probably in software development is relaying to the client what they want to hear rather than what is actually possible in terms of what features can be developed in a certain timeframe. While communicating with Dr. Nada on an almost daily basis, we soon learned that we must limit how often we agree to implement new features. By restricting ourselves to a limited set of features, we kept our goals realistic and achievable.

Our fourth lesson is in communication. Using Google Hangouts to confer about the project allowed a lot of freedom, including setting up meetings, working at home, etc. While an efficient medium of communication, any form of chat has its limits of what can be properly communicated. Through out the course of the semester there had been discussions and misunderstandings from our conversations online. Many of these misunderstandings led to unnecessary confusion and frustration. Eventually, these misunderstandings came to a head. While the conflict was resolved, as group we learned the limitations of this form of communication and how important in-person meetings are to explain and answer design heavy questions.

# 

# **Appendix A Supporting Documents**

## Status Reports

XXXXXX

## Meeting Minutes

Meeting Minutes

Total: 14 Meetings for 1,280 minutes (21.33 hours)

=====================================================================

1/21/2015: (45 minutes)

Initial meeting with Dr. Nadarajah where we discussed the requirements of the project. As opposed to an iPad app, we learned that Nada wants a goat herd management website for farmers to log onto and record information about their goats and other farm animals. He provided us with a website (cibiobase.com) to use as a template for the website. The information will be stored in a cloud database where farmers may compare their information to that of other users.

Dr. Nadarajah originally had a friend working on the project who had set up a Google SQL account (that we **do not**have access to) but left the project when it became too much work. He gave us the freedom to use whatever tools we desire and to decide whether to start from scratch or build off of the existing work. Nada had expressed a desire to request payment for using the website (in order to pay for the database hosting). As an alternative, he suggested maybe getting ads on the page to pay for the db hosting, so that user accounts can be free.

[Kara, Mack, Michael, Pace]

1/23/2015: (45 minutes)

Discussed design and requirements for Architectural Spike and started discussing which tools would be used. Although we are still undecided on whether to use the existing Google SQL account or start our own, we have unofficially decided to use ASP.net and C# as our web view and controller. We discussed using a Unified Process approach to the project and wrote out the design and requirements for the Architectural Spike iteration (found in respective file).

[Mack, Michael, Pace]

1/26/2015: (60 minutes)

We discussed the github that was created and ideas for the layout/functionality of the website. We also decided which route we were going to take for the database (Amazon RDS). Sent an email to get more detailed pricing info and discuss our needs with customer service reps to see what plan they recommend. Planned a second meeting with Dr. Nadarajah for February 4th since he will be in and out of town until then. Need Dr. Nada to setup an account with Amazon to get started with DB dev. All members gained access to the github repo and have an up to date project to work with. Realized we needed to create a powerpoint presentation (with small demo) for Dr. Nada to explain our current design decisions.

[Mack, Michael, Pace, Kara, Kyle]

2/4/2015: (90 minutes)

Meeting with Nada to discuss our potential solution, he was happy that we decided to build our own database from scratch. We gave him a presentation going over the amazon services that we would be using and also gave him a list of appropriate and available domain names (farmsdatabse.com). We then had him register for an amazon account and purchase the domain through godaddy.com.

[Mack,Michael,Pace,Kyle]

2/9/2015: (120 minutes)

Group meet to finalize presentation, documentation, and discussion for next iteration plans. Also worked on setting up Amazon Web Services account, and connecting that with visual studio.

[Mack,Michael,Pace,Kara,Kyle]

2/11/2015: (120 minutes)

To improve our group’s communication on current projects we organized the drive, created a running list of tasks, and decided how these tasks would be kept up to date. We made a few final changes to the current published web app for the demo tomorrow. We worked on cycle intent, user stories, our weekly status update, system metaphor, and other week 4 deliverables.

[Mack,Michael,Pace,Kara,Kyle]

2/18/2015: (100 minutes)

Group meet to work on site. Everyone worked on setting Amazon RDS and connecting database to project. Publishing the site to our Amazon EC2 was worked on as well. We also worked on documentation and task assignment.

[Mack,Michael,Pace,Kara,Kyle]

2/23/2015: (90 minutes)

Everyone met to work on site layout and functionality. Site layout included the 4 main public pages (mostly Home and About) and functionality included creating a controller for Associate entity and the corresponding views (Create, Index, Edit, Delete). Also worked on updating status report and other documentation.

[Mack,Michael,Pace,Kara,Kyle]

2/25/2015: (120 minutes)

Functionality was the main point addressed in this meeting. We started to discuss layout plans for after a user has logged in. We decided on a dashboard since Dr. Nada seemed like he wanted a dashboard for users and we thought it would be easy to view and use. Discussed basic layout of the dashboard page. Created a Transaction controller and the corresponding views (Create, Index, Edit, Delete, Compare).

[Mack,Michael,Pace,Kara,Kyle]

3/2/2015: (75 minutes)

Meeting to discuss what we did well on for Cycle 1 and also what we could improve for Cycle 2. We also meet to discuss potential graphs for the site for the users to be able to visualize the data that they are inputting. We decided on amCharts because of the diverse looks it had, the cost (free), and the ease of implementation. We created a simple graph to show for the demonstration, and published the site for the demonstration. Also made our powerpoint for end of Cycle 1 Presentation.

[Mack,Michael,Pace,Kara,Kyle]

3/4/2015: (140 minutes)

Meeting to finalize the deliverables for Cycle 1.

[Mack,Michael,Kara,Kyle]

3/11/2015: (70 minutes)

Meeting to discuss the ways we are going to handle accounts within the site. We are using MVC5 which was introduced alongside with the Identity security model. We decided against because of the lack of time it was out of beta (and also the lack of documentation). Instead we decided on Simple Membership which is a type of Forms authentication. There was lots of documentation and the tables for the database were autocreated so that would save us some time.

[Mack,Michael,Pace,Kara,Kyle]

3/18/2015: (65 minutes)

Met to make priorities decisions about feature creep. Worked on error with login page. Also worked to solve nuget package problem with visual studio. Also discussed task list and prioritized it to complete all planned items for cycle 2.

[Michael, Pace, Kyle, Kara]

4/1/2015: (140 minutes)

Meeting to finalize deliverables for Cycle 2.

[Mack,Michael,Pace,Kara,Kyle]

4/24/2015: (120 minutes)

Met for a massive testing event for every component of the website. Worked to fix any errors we found and include any new clarification messages we needed.

[Mack,Michael,Pace,Kara,Kyle]

4/27/2015: (140 minutes)

Met with our sponsor to discuss the current state of the website.

[Mack,Michael,Pace,Kara,Kyle]

4/29/2015: (140 minutes)

Meeting to finalize deliverables for Cycle 3.

[Mack,Michael,Pace,Kara,Kyle]

## Size Estimation Documentation

XXX

## Problem Reports / Change Requests

XXXX

## Correspondence

RE: senior design ipad app  
   
Kanagasabai Nadarajah <nadarka@auburn.edu>  
   
Jan 21  
   
to Kara, Richard  
Kara,  
  
Yes, I could meet with your group to-day in the afternoon after anytime from 2:30 PM. If that's OK with you and your group, please let me know where and at what time we are going to meet?  
  
Since this is going to be our initial meeting, I hope Dr. Chapman would be able to join us. I'm sure you have some idea about the project and what need to be done etc.  
  
Please feel free to contact me anytime if you have a question.  
  
  
Thank you.  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502  
e-mail: nadarka@auburn.edu  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
-----Original Message-----  
From: Kara Born [mailto:klb0037@tigermail.auburn.edu]  
Sent: Wednesday, January 21, 2015 11:22 AM  
To: Kanagasabai Nadarajah  
Subject: senior design ipad app  
  
Hello Dr. Nada,  
  
I'm one of the students in the software engineering senior design class that will be working with you this semester. My group and I would like to set up a meeting to discuss the project. Unfortunately my previous email didn't seem to go through, and I apologize for the short notice. Do you have any time later today to meet with us? If not, when is a good time for you?  
  
Thank you!  
Kara Born  
Kara Born <karaborn@gmail.com>  
   
Jan 21  
   
to Kanagasabai, Richard  
  
Dr. Nada  
  
I've spoken to my group, and we would be able to meet you at 4 today. We will come by your office if that is Ok with you. Typically, I don't think Dr. Chapman sits in on these meetings because we're practicing our business and management skills as well as our technical skills. I have Cc'd him on this email though just in case. I look forward to getting started!  
  
Thank you!  
Kara  
Kanagasabai Nadarajah <nadarka@auburn.edu>  
   
Jan 21  
   
to Kara  
Kara,  
I got both mails. Please be here on time 4pm. I will arrange a meeting room. I'm in room 214 Upchurch hall.  
Nada  
  
Sent from my iPhone  
  
> On Jan 21, 2015, at 11:57 AM, "Kara Born" <klb0037@tigermail.auburn.edu> wrote:  
>  
> I apologize if you're getting this email twice. I realized after I sent it that I sent it from my gmail account instead of my auburn account. I think that's why my last email didn't go through, so just to be sure here it is again.  
>  
> Dr. Nada  
>  
> I've spoken to my group, and we would be able to meet you at 4 today. We will come by your office if that is Ok with you. Typically, I don't think Dr. Chapman sits in on these meetings because we're practicing our business and management skills as well as our technical skills. I have Cc'd him on this email though just in case. I look forward to getting started!  
>  
> Thank you!  
> Kara  
> \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
> From: Kanagasabai Nadarajah <nadarka@auburn.edu>  
> Sent: Wednesday, January 21, 2015 11:32:49 AM  
> To: Kara Born  
> Cc: Kanagasabai Nadarajah; Richard Chapman  
> Subject: RE: senior design ipad app  
Richard Chapman <chapmro@auburn.edu>  
   
Jan 21  
   
to Kanagasabai, Kara  
I cannot meet at 4pm due to a faculty meeting, but I encourage the rest of you to please meet without me!  
Yours,  
Richard Chapman  
Richard Chapman <chapmro@auburn.edu>  
   
Jan 21  
   
to me, Kanagasabai  
That's correct, plus I cannot meet this afternoon due to a faculty meeting anyway. Please meet at 4pm without me.   
Thank you,   
Kanagasabai Nadarajah <nadarka@auburn.edu>  
   
Jan 22  
   
to Kara  
Hi Kara,  
  
Good morning!  
  
I was nice meeting with you and your group yesterday afternoon. It looks to me that you all are free from classes on Wednesdays and be able to meet together at 4 PM. No problem with me and we will keep this slot of time for our future meetings. As we planned, please come prepared for the meeting on Feb 4th at the same time 4 PM. We could meet in one of our small class rooms where there is a teaching computer with audio/video set up so that you all can outline your plans and ideas for tackling this project.  
  
The CD that I gave you to has all the components necessary to build the goat recordkeeping database if you wish to build one from scratch. For the dashboard, I like the design and elements that are in the cibiobase webportal. I can also show you the Goat database I build using the iFreetools on GoogleAb engine.  
  
Please convey my regards to other members of your team. I hope this project challenge is going to be great opportunity to showcase your skills and talents.  
  
Again thank you all and see you on Feb 4th. Please feel free to contact me if you have any questions.  
  
Nada  
Kara Born <karaborn@gmail.com>  
   
Jan 22  
   
to Michael, Mack, akt0011, mrj0006  
Kara Born <karaborn@gmail.com>  
   
Jan 26  
   
to Kanagasabai, Mack, Michael, mrj0006, akt0011  
Hello Dr. Nada!  
  
I hope you had a great weekend and are enjoying your vacation. I was looking through the documentation you provided, and I can't seem to find the web address for your current system. Can you please provide me with the web address where your users would navigate to in order to log into the system? I have two accounts that I would like to be added to the current system, so we can see in more detail how things currently work.  
  
Admin account: KaraBorn@gmail.com  
User/Farmer account: BornSpam@gmail.com  
  
I believe my group has come to a decision regarding which cloud database service we think would be best and look forward to showing you what we've come up with so far! I will have a short presentation about our current design and a status report ready for our meeting. The service we picked is free for the first 12 months (as long as you don't go over the storage limit, which is 20GB), but in order to start development we will need to set up a billing account. To do this, a credit card must be on file with Amazon. We can go over this in detail during our meeting, but I wanted you to be aware that (as long as you approve of our design decisions) we will need you to set up an account with billing information on the 4th so we can begin the database development.  
  
I also am going to consult a professional graphic designer for the website logo and possibly the dashboard mockups. I will be skyping with her on Wednesday and needed to ask you a few more questions about the website. We have the website template you want to model the basic design after, so we won't stray far from that. I do need to know:  
  
Do you already have a logo you want us to use?  
What you would like the title of this website to be?  
Do you have a web domain purchased or do we need to look into pricing for that also?  
Do you want to keep it as "FARMS Database" or are we free to come up with another name?  
Would you like the site to be goat specific or would you like to expand it to general farm animal record keeping?  
  
Thank you!  
Kanagasabai Nadarajah <nadarka@auburn.edu>  
   
Jan 26  
   
to me, Mack, Michael, Michael, Andrew  
  
Hello Kara and others,  
  
   
  
Thanks for the note. I worked over the weekend on a manuscript to include into the International Symposium proceedings that I plan to attend in India Feb 12-14th and also presentation slides for another meeting in Atlanta this coming Monday. no vacation ae had a good long holidays X’mas cum New Year!  
  
   
  
I’m glad that you all want to start the database from scratch so you can use the variables from each data sheet from the MSEXCEL program CD that I gave to you. You can’t get into the login system until we add you as a user and admin into the Goat Database built on the Google Ap Engine using iFreeTools. I will show you the program on Feb 4th using one of our teaching classroom computers. I will also try with the owner to add your gmail IDs or else I will let you use my gmail ID as admin. At this point, since we are going to use the Amazon cloud platform, we can forget about iFreeTool Database.  
  
   
  
Please come prepared to give your presentation on 4th. I can sign in an account with Amazon and don’t see any problem. I also saw another service in the US we can check out. With regards to your questions,  
  
   
  
Do you already have a logo you want us to use?  
  
Not really, you guys want to come up with something interesting? Be creative! Yaa, its part of your senior design project.  
  
  
What you would like the title of this website to be?  
  
I used the database as F\_A\_R\_M\_S, so we may have to use a web title that connects well with the objective of this project. If you all come up with a few we can discuss about using them too.  
  
   
  
Do you have a web domain purchased or do we need to look into pricing for that also?  
  
Please look into it. I have not purchased one yet we can do that, please check some good service providers. We will talk on 4th.  
  
   
  
Do you want to keep it as "FARMS Database" or are we free to come up with another name?  
  
 I used F\_A\_R\_M\_S ie: Farm Animals Record Management System for the Database. You are free to come up with a few good ones (names), after all, your project is partly to demonstrate your technical skills and other part is the business components of the design project/experience.  
  
  
Would you like the site to be goat specific or would you like to expand it to general farm animal record keeping?  
  
Right now to keep it simple, it’s going to be Goat and specifically, (Meat Goat Production and Management Software/Database). Then, may be the next possible addition could be lamb (Meat-Mutton) production and perhaps to be extended to “Dairy Goat Milk production” later as different modules.  
  
   
  
Expanding to other livestock species is not in my thoughts for this moment.  
  
   
  
Thank you all.  
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Monday, January 26, 2015 2:40 PM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Michael Jones; Andrew Taylor  
Kanagasabai Nadarajah  
   
Jan 28  
   
to me  
  
Hi Kara,  
  
   
  
Hope you all are working hard to layout the outline and develop the strategies to accomplish the tasks associated with the proposed project.  
  
   
  
I received a note from Mr Raj this morning as appended here. You may try now to log into the Goat Data base that I developed using the iFreeTools. Please let me know if you have any questions either by email or phone (office – 844-1502).  
  
   
  
As per your request the gmail IDs are assigned as follows:  
  
   
  
Admin account: KaraBorn@gmail.com  
  
User/Farmer account: BornSpam@gmail.com  
  
   
  
Thanks.  
  
   
  
Nada  
  
----------------------------------------------------------------------------------------------------   
  
   
  
Dear Dr. Nada,  
  
   
  
I have added the user accounts, as per your request. You can inform the users to login with their related Google accounts and they should get access to the application with the configured admin / producer permissions.  
  
   
  
Best regards,  
Raj  
  
---------------------------------------------------------------------------------------------------  
  
   
  
Nada K, Nadarajah, PhD  
  
Sr. Research Fellow  
  
Dept. of Animal Sciences  
  
361 Mell St., Room 214 Upchurch Hall  
  
Auburn University, Auburn, AL 36849.  
  
Tel: 334-844-1502  
  
e-mail: nadarka@auburn.edu  
  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Monday, January 26, 2015 2:40 PM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Michael Jones; Andrew Taylor  
Kara Born Jan 28  
Dr. Nada, Thank you for this information! We are making good progress on the ...  
Kanagasabai Nadarajah  
   
Jan 28  
   
to me  
  
Hi Kara,  
  
   
  
Good to hear from you about the progress.  
  
   
  
Did you try to login to the GoatDatabase? If you want to try and input some data into the GoatdataBase, you as the farmer/user please let me know. If you sign in as an admin you can see all the data of all users. The Animal ID/NUM is the main/unique identification in each of the sub files (Pedigree, breeding and kidsperformance data) and you will see a pattern. The first few digits of the ID numbers may be same but the last one an alpha letter that differentiate animals across individual user herds. You can copy those data and change the last letter to something we have not used.  
  
   
  
Thanks   
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Wednesday, January 28, 2015 9:49 AM  
To: Kanagasabai Nadarajah  
Kara Born <karaborn@gmail.com>  
   
Feb 3  
   
to Kanagasabai, Mack, Michael, akt0011, mrj0006  
Hi Dr. Nada,  
  
Yes, we have been able to log into the user/farmer account. I was wondering if you could add each of us as admins? Here is a list of the email addresses we're requesting admin privileges for:  
  
  
0kyleTaylor@gmail.com  
mack.bartus@gmail.com  
terinopace@gmail.com  
mrj00060@gmail.com  
  
I've had a family emergency arise and am currently out of town. I anticipate being back in time for our meeting on Wednesday. However, if the situation here worsens I may not be able to attend. In that case my group would still be able to meet with you and present our progress. I just wanted to let you know.  
  
Thank you!  
Kanagasabai Nadarajah  
   
Feb 3  
   
to me, Mack, Michael, Andrew, Michael  
Hi all,  
  
I just got back this evening after a four day meetings in Atlanta. Kara, sorry to hear about your family emergency. I'm looking forward to meet with you all tomorrow at 4 PM.  
  
Nada  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
From: Kara Born [karaborn@gmail.com]  
Sent: Tuesday, February 03, 2015 10:08 AM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Andrew Taylor; Michael Jones  
Subject: Re: senior design ipad app  
  
Hi Dr. Nada,  
  
Yes, we have been able to log into the user/farmer account. I was wondering if you could add each of us as admins? Here is a list of the email addresses we're requesting admin privileges for:  
  
  
0kyleTaylor@gmail.com<mailto:0kyleTaylor@gmail.com>  
mack.bartus@gmail.com<mailto:mack.bartus@gmail.com>  
terinopace@gmail.com<mailto:terinopace@gmail.com>  
mrj00060@gmail.com<mailto:mrj00060@gmail.com>  
  
I've had a family emergency arise and am currently out of town. I anticipate being back in time for our meeting on Wednesday. However, if the situation here worsens I may not be able to attend. In that case my group would still be able to meet with you and present our progress. I just wanted to let you know.  
  
Thank you!  
  
Kara  
  
On Wed, Jan 28, 2015 at 11:40 AM, Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>> wrote:  
Hi Kara,  
  
Good to hear from you about the progress.  
  
Did you try to login to the GoatDatabase? If you want to try and input some data into the GoatdataBase, you as the farmer/user please let me know. If you sign in as an admin you can see all the data of all users. The Animal ID/NUM is the main/unique identification in each of the sub files (Pedigree, breeding and kidsperformance data) and you will see a pattern. The first few digits of the ID numbers may be same but the last one an alpha letter that differentiate animals across individual user herds. You can copy those data and change the last letter to something we have not used.  
  
Thanks  
  
Nada  
  
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Sent: Wednesday, January 28, 2015 9:49 AM  
To: Kanagasabai Nadarajah  
  
Subject: RE: senior design ipad app  
  
  
Dr. Nada,  
  
Thank you for this information! We are making good progress on the preliminary website and database tables. We look forward to sharing this with you next week!  
  
Thank you,  
Kara  
On Jan 28, 2015 8:18 AM, "Kanagasabai Nadarajah" <nadarka@auburn.edu<mailto:nadarka@auburn.edu>> wrote:  
Hi Kara,  
  
Hope you all are working hard to layout the outline and develop the strategies to accomplish the tasks associated with the proposed project.  
  
I received a note from Mr Raj this morning as appended here. You may try now to log into the Goat Data base that I developed using the iFreeTools. Please let me know if you have any questions either by email or phone (office – 844-1502).  
  
As per your request the gmail IDs are assigned as follows:  
  
Admin account: KaraBorn@gmail.com<mailto:KaraBorn@gmail.com>  
User/Farmer account: BornSpam@gmail.com<mailto:BornSpam@gmail.com>  
  
Thanks.  
  
Nada  
----------------------------------------------------------------------------------------------------  
  
Dear Dr. Nada,  
  
I have added the user accounts, as per your request. You can inform the users to login with their related Google accounts and they should get access to the application with the configured admin / producer permissions.  
  
Best regards,  
Raj  
---------------------------------------------------------------------------------------------------  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
From: Kara Born [mailto:karaborn@gmail.com<mailto:karaborn@gmail.com>]  
Sent: Monday, January 26, 2015 2:40 PM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Michael Jones; Andrew Taylor  
Subject: Re: senior design ipad app  
  
Hello Dr. Nada!  
I hope you had a great weekend and are enjoying your vacation. I was looking through the documentation you provided, and I can't seem to find the web address for your current system. Can you please provide me with the web address where your users would navigate to in order to log into the system? I have two accounts that I would like to be added to the current system, so we can see in more detail how things currently work.  
Admin account: KaraBorn@gmail.com<mailto:KaraBorn@gmail.com>  
User/Farmer account: BornSpam@gmail.com<mailto:BornSpam@gmail.com>  
  
I believe my group has come to a decision regarding which cloud database service we think would be best and look forward to showing you what we've come up with so far! I will have a short presentation about our current design and a status report ready for our meeting. The service we picked is free for the first 12 months (as long as you don't go over the storage limit, which is 20GB), but in order to start development we will need to set up a billing account. To do this, a credit card must be on file with Amazon. We can go over this in detail during our meeting, but I wanted you to be aware that (as long as you approve of our design decisions) we will need you to set up an account with billing information on the 4th so we can begin the database development.  
I also am going to consult a professional graphic designer for the website logo and possibly the dashboard mockups. I will be skyping with her on Wednesday and needed to ask you a few more questions about the website. We have the website template you want to model the basic design after, so we won't stray far from that. I do need to know:  
  
Do you already have a logo you want us to use?  
What you would like the title of this website to be?  
Do you have a web domain purchased or do we need to look into pricing for that also?  
Do you want to keep it as "FARMS Database" or are we free to come up with another name?  
Would you like the site to be goat specific or would you like to expand it to general farm animal record keeping?  
  
Thank you!  
Kara  
  
On Thu, Jan 22, 2015 at 8:16 AM, Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>> wrote:  
Hi Kara,  
  
Good morning!  
  
I was nice meeting with you and your group yesterday afternoon. It looks to me that you all are free from classes on Wednesdays and be able to meet together at 4 PM. No problem with me and we will keep this slot of time for our future meetings. As we planned, please come prepared for the meeting on Feb 4th at the same time 4 PM. We could meet in one of our small class rooms where there is a teaching computer with audio/video set up so that you all can outline your plans and ideas for tackling this project.  
  
The CD that I gave you to has all the components necessary to build the goat recordkeeping database if you wish to build one from scratch. For the dashboard, I like the design and elements that are in the cibiobase webportal. I can also show you the Goat database I build using the iFreetools on GoogleAb engine.  
  
Please convey my regards to other members of your team. I hope this project challenge is going to be great opportunity to showcase your skills and talents.  
  
Again thank you all and see you on Feb 4th. Please feel free to contact me if you have any questions.  
  
Nada  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
  
-----Original Message-----  
From: Kara Born [mailto:klb0037@tigermail.auburn.edu<mailto:klb0037@tigermail.auburn.edu>]  
Sent: Wednesday, January 21, 2015 11:58 AM  
To: Kanagasabai Nadarajah  
Subject: Re: senior design ipad app  
  
I apologize if you're getting this email twice. I realized after I sent it that I sent it from my gmail account instead of my auburn account. I think that's why my last email didn't go through, so just to be sure here it is again.  
  
Dr. Nada  
  
I've spoken to my group, and we would be able to meet you at 4 today. We will come by your office if that is Ok with you. Typically, I don't think Dr. Chapman sits in on these meetings because we're practicing our business and management skills as well as our technical skills. I have Cc'd him on this email though just in case. I look forward to getting started!  
  
Thank you!  
Kara  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
From: Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>>  
Sent: Wednesday, January 21, 2015 11:32:49 AM  
To: Kara Born  
Cc: Kanagasabai Nadarajah; Richard Chapman  
Subject: RE: senior design ipad app  
Kara,  
  
Yes, I could meet with your group to-day in the afternoon after anytime from 2:30 PM. If that's OK with you and your group, please let me know where and at what time we are going to meet?  
  
Since this is going to be our initial meeting, I hope Dr. Chapman would be able to join us. I'm sure you have some idea about the project and what need to be done etc.  
  
Please feel free to contact me anytime if you have a question.  
  
  
Thank you.  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
Kara Born <karaborn@gmail.com>  
   
Feb 4  
   
to Kanagasabai  
  
Dr. Nada,  
  
I'm glad you got back safely from your conference and hope you aren't too worn out. I will unfortunately be unable to attend our meeting tomorrow. My mother in law is having more complications, so I am staying in Birmingham until Sunday. I've sent the presentation to my group, but if you have any questions afterwards please email me! I apologize for not being there.  
  
Thank you for understanding!  
Kara  
Kanagasabai Nadarajah  
   
Feb 4  
   
to me, Mack, Michael, Andrew, Michael  
  
Hi all,  
  
   
  
I received a note from Kara that she won’t be able to be here for the meeting. Please come to Room 220 or 218, they are next my room 214 Upchurch Hall. Both class rooms are equipped with audiovisuals set up and I will try to set the computer and overhead projector about few minutes before 4PM. So that there won’t be any delay in starting your presentations.  
  
   
  
Thank you and see you all at 4PM.  
  
   
  
Nada Nadarajah  
  
Nada K, Nadarajah, PhD  
  
Sr. Research Fellow  
  
Dept. of Animal Sciences  
  
361 Mell St., Room 214 Upchurch Hall  
  
Auburn University, Auburn, AL 36849.  
  
Tel: 334-844-1502  
  
e-mail: nadarka@auburn.edu  
  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Tuesday, February 03, 2015 10:08 AM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Andrew Taylor; Michael Jones  
Kanagasabai Nadarajah  
   
Feb 5  
   
to me, Mack, Michael, Andrew, Michael  
  
Hi All,  
  
   
  
I thought the meeting we had yesterday was a very productive one and I’m so pleased to see your interest and enthusiasm to make this project as the best among your class.  
  
   
  
As I promised, I will be here at 12:45 PM to meet whoever you have nominated to come over to my office to register the domain and signup an AWS account with the Amazon web-cloud-database service.  
  
   
  
Michael Pace, (the Database Expert), you have my Excel Template goat database CD, please check the macros page for all the explanation as well as the definition for the abbreviated variables used in the forms. Also, at the bottom in the Summary/calculation, placing the cursor on any cell will show you the formulas and calculations I have used to create the summary. They are self-explanatory, but you have any doubts or questions please contact me.  
  
   
  
Kara, we all hope and pray that your family situation improve well and soon you will be relieved.  
  
   
  
FYI, I will be away from Feb 10th to Feb 17th and hope to be back in my office on Wed Feb 18th. If you all want to meet on that day at 4 PM, I may be able to accommodate that too.  
  
   
  
Thanks.  
  
   
  
Nada   
  
   
  
Nada K, Nadarajah, PhD  
  
Sr. Research Fellow  
  
Dept. of Animal Sciences  
  
361 Mell St., Room 214 Upchurch Hall  
  
Auburn University, Auburn, AL 36849.  
  
Tel: 334-844-1502  
  
e-mail: nadarka@auburn.edu  
  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
   
  
From: Kanagasabai Nadarajah  
Sent: Wednesday, February 04, 2015 2:34 PM  
To: Kara Born; Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Andrew Taylor; Michael Jones  
Kanagasabai Nadarajah  
   
Feb 18  
   
to me, Mack, Michael, Andrew, Michael  
Hi all,  
  
I'm back after my trip and will be in office tomorrow.  
  
Please let me know if you all want to meet with me tomorrow at 4PM?  
  
Thanks.  
  
Nada  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
From: Kanagasabai Nadarajah  
Sent: Wednesday, February 04, 2015 2:33 PM  
To: Kara Born; Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Andrew Taylor; Michael Jones  
Subject: RE: senior design ipad app  
  
Hi all,  
  
I received a note from Kara that she won’t be able to be here for the meeting. Please come to Room 220 or 218, they are next my room 214 Upchurch Hall. Both class rooms are equipped with audiovisuals set up and I will try to set the computer and overhead projector about few minutes before 4PM. So that there won’t be any delay in starting your presentations.  
  
Thank you and see you all at 4PM.  
  
Nada Nadarajah  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Tuesday, February 03, 2015 10:08 AM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Andrew Taylor; Michael Jones  
Subject: Re: senior design ipad app  
  
Hi Dr. Nada,  
Yes, we have been able to log into the user/farmer account. I was wondering if you could add each of us as admins? Here is a list of the email addresses we're requesting admin privileges for:  
  
0kyleTaylor@gmail.com<mailto:0kyleTaylor@gmail.com>  
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terinopace@gmail.com<mailto:terinopace@gmail.com>  
mrj00060@gmail.com<mailto:mrj00060@gmail.com>  
I've had a family emergency arise and am currently out of town. I anticipate being back in time for our meeting on Wednesday. However, if the situation here worsens I may not be able to attend. In that case my group would still be able to meet with you and present our progress. I just wanted to let you know.  
  
Thank you!  
  
Kara  
  
On Wed, Jan 28, 2015 at 11:40 AM, Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>> wrote:  
Hi Kara,  
  
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Did you try to login to the GoatDatabase? If you want to try and input some data into the GoatdataBase, you as the farmer/user please let me know. If you sign in as an admin you can see all the data of all users. The Animal ID/NUM is the main/unique identification in each of the sub files (Pedigree, breeding and kidsperformance data) and you will see a pattern. The first few digits of the ID numbers may be same but the last one an alpha letter that differentiate animals across individual user herds. You can copy those data and change the last letter to something we have not used.  
  
Thanks  
  
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Sent: Wednesday, January 28, 2015 9:49 AM  
To: Kanagasabai Nadarajah  
  
Subject: RE: senior design ipad app  
  
  
Dr. Nada,  
  
Thank you for this information! We are making good progress on the preliminary website and database tables. We look forward to sharing this with you next week!  
  
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Kara  
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As per your request the gmail IDs are assigned as follows:  
  
Admin account: KaraBorn@gmail.com<mailto:KaraBorn@gmail.com>  
User/Farmer account: BornSpam@gmail.com<mailto:BornSpam@gmail.com>  
  
Thanks.  
  
Nada  
----------------------------------------------------------------------------------------------------  
  
Dear Dr. Nada,  
  
I have added the user accounts, as per your request. You can inform the users to login with their related Google accounts and they should get access to the application with the configured admin / producer permissions.  
  
Best regards,  
Raj  
---------------------------------------------------------------------------------------------------  
  
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Sr. Research Fellow  
Dept. of Animal Sciences  
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Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
From: Kara Born [mailto:karaborn@gmail.com<mailto:karaborn@gmail.com>]  
Sent: Monday, January 26, 2015 2:40 PM  
To: Kanagasabai Nadarajah  
Cc: Mack Bartus; Michael Pace; Michael Jones; Andrew Taylor  
Subject: Re: senior design ipad app  
  
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Admin account: KaraBorn@gmail.com<mailto:KaraBorn@gmail.com>  
User/Farmer account: BornSpam@gmail.com<mailto:BornSpam@gmail.com>  
  
I believe my group has come to a decision regarding which cloud database service we think would be best and look forward to showing you what we've come up with so far! I will have a short presentation about our current design and a status report ready for our meeting. The service we picked is free for the first 12 months (as long as you don't go over the storage limit, which is 20GB), but in order to start development we will need to set up a billing account. To do this, a credit card must be on file with Amazon. We can go over this in detail during our meeting, but I wanted you to be aware that (as long as you approve of our design decisions) we will need you to set up an account with billing information on the 4th so we can begin the database development.  
I also am going to consult a professional graphic designer for the website logo and possibly the dashboard mockups. I will be skyping with her on Wednesday and needed to ask you a few more questions about the website. We have the website template you want to model the basic design after, so we won't stray far from that. I do need to know:  
  
Do you already have a logo you want us to use?  
What you would like the title of this website to be?  
Do you have a web domain purchased or do we need to look into pricing for that also?  
Do you want to keep it as "FARMS Database" or are we free to come up with another name?  
Would you like the site to be goat specific or would you like to expand it to general farm animal record keeping?  
  
Thank you!  
Kara  
  
On Thu, Jan 22, 2015 at 8:16 AM, Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>> wrote:  
Hi Kara,  
  
Good morning!  
  
I was nice meeting with you and your group yesterday afternoon. It looks to me that you all are free from classes on Wednesdays and be able to meet together at 4 PM. No problem with me and we will keep this slot of time for our future meetings. As we planned, please come prepared for the meeting on Feb 4th at the same time 4 PM. We could meet in one of our small class rooms where there is a teaching computer with audio/video set up so that you all can outline your plans and ideas for tackling this project.  
  
The CD that I gave you to has all the components necessary to build the goat recordkeeping database if you wish to build one from scratch. For the dashboard, I like the design and elements that are in the cibiobase webportal. I can also show you the Goat database I build using the iFreetools on GoogleAb engine.  
  
Please convey my regards to other members of your team. I hope this project challenge is going to be great opportunity to showcase your skills and talents.  
  
Again thank you all and see you on Feb 4th. Please feel free to contact me if you have any questions.  
  
Nada  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
  
-----Original Message-----  
From: Kara Born [mailto:klb0037@tigermail.auburn.edu<mailto:klb0037@tigermail.auburn.edu>]  
Sent: Wednesday, January 21, 2015 11:58 AM  
To: Kanagasabai Nadarajah  
Subject: Re: senior design ipad app  
  
I apologize if you're getting this email twice. I realized after I sent it that I sent it from my gmail account instead of my auburn account. I think that's why my last email didn't go through, so just to be sure here it is again.  
  
Dr. Nada  
  
I've spoken to my group, and we would be able to meet you at 4 today. We will come by your office if that is Ok with you. Typically, I don't think Dr. Chapman sits in on these meetings because we're practicing our business and management skills as well as our technical skills. I have Cc'd him on this email though just in case. I look forward to getting started!  
  
Thank you!  
Kara  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
From: Kanagasabai Nadarajah <nadarka@auburn.edu<mailto:nadarka@auburn.edu>>  
Sent: Wednesday, January 21, 2015 11:32:49 AM  
To: Kara Born  
Cc: Kanagasabai Nadarajah; Richard Chapman  
Subject: RE: senior design ipad app  
Kara,  
  
Yes, I could meet with your group to-day in the afternoon after anytime from 2:30 PM. If that's OK with you and your group, please let me know where and at what time we are going to meet?  
  
Since this is going to be our initial meeting, I hope Dr. Chapman would be able to join us. I'm sure you have some idea about the project and what need to be done etc.  
  
Please feel free to contact me anytime if you have a question.  
  
  
Thank you.  
  
Nada K, Nadarajah, PhD  
Sr. Research Fellow  
Dept. of Animal Sciences  
361 Mell St., Room 214 Upchurch Hall  
Auburn University, Auburn, AL 36849.  
Tel: 334-844-1502<tel:334-844-1502>  
e-mail: nadarka@auburn.edu<mailto:nadarka@auburn.edu>  
Kara Born <karaborn@gmail.com>  
   
Feb 18  
   
to Kanagasabai  
  
Hi Dr. Nada.  
  
I just wanted to let you know that we don't need to meet today. I think we have everything we need for now. How does March 4th sound? That will be the end of our first cycle, and we should have some new, interesting things to show you at that point.  
  
Just let me know!  
Thanks,  
Kara  
Kanagasabai Nadarajah  
   
Feb 18  
   
to me  
  
Hi Kara,  
  
   
  
Thanks for the note and pleased to know that your guys are progressing well with the project. March 4th or even before any date and time is fine with me. My trip to India and the conference program went very well and it was a short trip but in overall was a good one.  
  
   
  
Earlier, I expressed some key points to be incorporated in the dashboard that link to the database. To re-address, here are a few items that comes to my mind.  
  
   
  
1. The sign in (registering user) in the dashboard will have a standard info with but extended to: a) User – Goat or Sheep producer? If goat producer, for milk or meat? If Sheep producer, for milk or meat or wool?  
  
2. Regardless whether he or she is a goat or sheep producer, they have to list the breed (s) of goat or sheep they own/working with. We can provide a short list of most common breeds of goat and sheep as a drop down box to “click and check” the breed(s) they own. If not found in our selection list, then have a choice “others” expanded to input the name of Breed 1, breed2, breed 3 etc.  
  
3. The info collected on “Form” has to be captured and passed into the database as “user info” as part of the sub-file to be used as a “look-up” for individual data – auto input.  
  
   
  
   
  
This would be the bridge between the Database and Dashboard for inputting /outputting any graphic forms of reports and summary.  
  
   
  
I will explain it next time.  
  
   
  
Convey to all others.  
  
   
  
Nada  
  
   
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Wednesday, February 18, 2015 9:27 AM  
Kara Born Feb 18  
---------- Forwarded message ---------- From: Kanagasabai Nadarajah <nadarka@...  
Kara Born <karaborn@gmail.com>  
   
Feb 18  
   
to Kanagasabai  
I'm glad to hear your conference went well! We just had our first test in our networks class yesterday, but we think it went well. I have relayed your email to my group. We can definitely work on those dashboard specifications as we come to them. Right now we're working on connecting the database to the website, organizing and designing the public pages, and our required documentation for the class. As of right now, March 4th will be good for us. However, if something comes up before then and we need your guidance or clarification, I will definitely let you know. I look forward to showing your our progress and getting your feedback!  
Kanagasabai Nadarajah  
   
Feb 18  
   
to me  
  
Thanks Kara. Great!  
  
Looking forward to…  
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Wednesday, February 18, 2015 12:06 PM  
Kanagasabai Nadarajah  
   
Feb 20 (12 days ago)  
   
to Michael, me  
  
Thanks Kara. Great, hope all are doing fine with their tests; we can meet on Wednesday Mar 4th at 4PM.  
  
   
  
You have access to my cloud Goatdatabase as both user and admin that is on the Google Aps Engine platform through iFreeTools web portal. Please work closely with whomever (Michael Pace?) developing the new database to get a very clear idea about the databse set up. I know, you can add any number columns (variables) at the end but it would be nice leave some dummy columns in between major sections of grouped items (Animal info, sire info, dam info etc) so that we can use those dummy columns in the future if we have to add in new variables to stay within a group. That’s how I have left a few dummy columns in the design structure in between certain sections in the iFreeTools –goat database.   
  
   
  
On another note, I’m thinking about simulating a set of records (pedigree, breeding and kid performance etc) for a small herd to represent an individual producer/user and that could be populated for four or five individual users (that would be each of you) in the team. By doing so, your team members will have the user experience as well as the Admin experience of the whole database system for testing and debugging. I will try to write a simulation program to do that but may not be that easy. I can output the records into an Excel Sheet, or in text file / a comma separated variable file format to be uploaded into the database. What you all think?  
  
   
  
Thanks.  
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Wednesday, February 18, 2015 12:06 PM  
Kara Born <karaborn@gmail.com>  
   
Feb 20 (12 days ago)  
   
to Mack, akt0011, mrj0006, Michael  
Kara Born <karaborn@gmail.com>  
   
Feb 20 (12 days ago)  
   
to Kanagasabai  
Hi Dr. Nada!  
  
I think giving us sample excel sheets with data will work perfectly. Thanks for doing that!  
  
As far as the extra dummy columns, we've already been discussing the best way to implement a user adding specific data for their herd that may not be previously categorized. We have a few ideas we can run by you at the next meeting.  
  
I hope all is going well!  
Kanagasabai Nadarajah  
   
Feb 23 (9 days ago)  
   
to me  
  
Hi Kara,  
  
   
  
I’m sure you are aware that your team members wanted me to register our domain with GoDaddy to help out with your design project. So with their help, I registered for a domain name farmsdatabase.com and paid the fee with my personal credit card. My last credit card statement showed the payment debited to my account. But, I received an e-mail recently saying that my services will be suspended and account remains unpaid for nsWebAddress (es). I don’t understand as what is going on. There was a link given to reinstate the service but that link shows an error when I opened that link as “page not found”. See the appended message below. I don’t want to see your design project gets affected because of this issue. Please check with your team members who came to my office and helped me with the registration of the domain what they think about this issue. On another note soon after I registered the domain, I have a dozens of unsolicited e-mails from many vendors offering their service to me to build a “website/webportal” and maintain it at their site for a fee! Simply, I ignored all of them.  
  
   
  
Thanks.  
  
   
  
Nada   
  
-------------------------------------------------------------------------------------------------------------------------------------------------------  
  
Dear Valued GoDaddy  
  
Your GoDaddy service(s) shown below has been suspended because some of the purchases on your account remain unpaid. For a limited time, however, the services will continue to be registered to you even while disabled .  
  
Account Holder: KANAGASABAI NADARAJAH.  
  
The following nsWebAddress™ are in this account : farmsdatabase.com  
  
Please make payment immediately upon receipt of this notification, or the nsWebAddress™(es) listed above will be deleted from your account and we may, in accordance with our service agreement, attempt to renew and transfer the nsWebAddress™ listed above to a third party on your behalf. This notice has been sent to both the Primary Contact and Registrant assigned for these services.  
  
To make payment and reinstate your services, please Follow the reference below :  
https://m.godaddy.com/payment.aspx?tos=30f48cd3c7e73511070b95ee0a884c2330f48cd3c7e73511070b95ee0a884c23  
  
  
Thanks for your co-operation.  
GoDaddy Customer Support.  
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -  
Copyright (c) 1999-2015 GoDaddy.com, LLC. All rights reserved.  
  
   
  
Nada K, Nadarajah, PhD  
  
Sr. Research Fellow  
  
Dept. of Animal Sciences  
  
361 Mell St., Room 214 Upchurch Hall  
  
Auburn University, Auburn, AL 36849.  
  
Tel: 334-844-1502  
  
e-mail: nadarka@auburn.edu  
  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Friday, February 20, 2015 2:54 PM  
Kara Born <karaborn@gmail.com>  
   
Feb 23 (9 days ago)  
   
to mrj0006, Michael, Mack  
Kara Born <karaborn@gmail.com>  
   
Feb 23 (9 days ago)  
   
to Kanagasabai  
  
Dr. Nada thank you for the images. I've sent your email to the rest of my team and will let you know as soon as possible. I apologize for all the spam they've sent you! I hate that.  
Kara Born <karaborn@gmail.com>  
   
Feb 23 (9 days ago)  
   
to Kanagasabai  
  
Sorry articles, not images. Although the first one isn't allowing me access, but that may be because I'm on a mobile device. I'll try again from my desktop when I can.  
Kanagasabai Nadarajah  
   
Feb 23 (9 days ago)  
   
to me  
  
Yep, I checked it too; the first one is not opening from the e-mail link that is because the publisher would allow access to only the subscribers. If you sing in as AU student at the University domain and since our library is the official subscriber, you can access it. If you all can’t get it I will make copies and give it to you all to read. No problem.  
  
   
  
By the way, I had another e-mail came from Amazon WAS service where we have registered as users/developers and though it free for one year, use of one particular software tool/service that need to be paid. I didn’t understand and not clear to me. We will discuss it later when we meet as a group.  
  
   
  
Nada   
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Monday, February 23, 2015 9:57 AM  
Kara Born <karaborn@gmail.com>  
   
Feb 23 (9 days ago)  
   
to Mack, mrj0006, Michael  
Kara Born <karaborn@gmail.com>  
   
Feb 23 (9 days ago)  
   
to Kanagasabai  
  
Would you mind forwarding me the email from Amazon? As far as the godaddy emails, the site and account services seem to be fine. What we think may have happened is that when you signed up, there was an optional $10 charge to keep your information private. Since we did not select that option, we believe scammers and phishers may be sending you emails. If you are interested we can look into opting-in for the privacy feature.  
Kanagasabai Nadarajah  
   
Feb 23 (9 days ago)  
   
to me  
  
Hi Kara,  
  
   
  
Yes, I can forward the –email came that from Amazon. Don’t worry about making the info private; I’m used to the spams /scammers and phishing. One stroke of the six-letter key would do!  
  
I’m trying to simulate few herds/user sample data for you all for testing the database program and the access through the dashboard sign-up portal. See you all soon.  
  
   
  
Thanks.  
  
   
  
Nada  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Monday, February 23, 2015 12:02 PM  
To: Kanagasabai Nadarajah  
Kanagasabai Nadarajah  
   
Feb 26 (6 days ago)  
   
to me  
  
Hi Kara,  
  
   
  
Hope all are keeping well except for the COLD and rainy weather! I guess it’s gone now.  
  
   
  
Were you able to open the article that you couldn’t open by signing into the AU domain?  
  
   
  
I have a sample herd records simulated for uploading or testing if the database ready. I’m planning to simulate with different parameters may be another 3 or 4 datasets (herds) to represent four individual users. That way we can do an extensive testing and generating a variety of reports.  
  
   
  
A single herd data (producer/user) would use five males (bucks) and roughly about 40-50 females (does) to produce the kids in a year. He will use two of his own bucks (natural service) and three more A.I bucks (Artificial Insemination) to produce those kids. The rest of the (3 to 4) producers participating in the project will follow the same pattern but they would pick/sample their 3 A.I bucks from a pool of say 9 -10 buck where they can get semen for AI. We want to see how those common AI bucks are performing across herds and within each herd relative to their own two natural service bucks.  
  
   
  
If you all can use this data now, I will e-mail it to you or I can show and describe it on March 4th and pass it to you on that day.  
  
   
  
Thank you and see you all on Wed March 4th at 4 PM.  
  
   
  
Nada  
  
   
  
   
  
Nada K, Nadarajah, PhD  
  
Sr. Research Fellow  
  
Dept. of Animal Sciences  
  
361 Mell St., Room 214 Upchurch Hall  
  
Auburn University, Auburn, AL 36849.  
  
Tel: 334-844-1502  
  
e-mail: nadarka@auburn.edu  
  
URL: http://www.ag.auburn.edu/ansc/directory/staff/Nadarajah/index.php  
  
   
  
From: Kara Born [mailto:karaborn@gmail.com]  
Sent: Monday, February 23, 2015 12:02 PM  
To: Kanagasabai Nadarajah  
Kara Born <karaborn@gmail.com>  
   
Feb 26 (6 days ago)  
   
to Kanagasabai  
Dr. Nada,  
  
We are currently putting together a database demo, so this information would be very useful. If needed, we can go over it on our March 4th meeting also. We have a running document of questions and issues to discuss with you already.  
  
I was able to open the link. Thank you!

Website Update

Kanagasabai Nadarajah <nadarka@auburn.edu>

Sun 4/19/2015 9:34 PM

To:

Michael Jones;

Cc:

Kanagasabai Nadarajah;

Kara Born;

Mack Bartus;

Michael Pace;

Andrew Taylor;

Wonderful. Thanks; I will take a look and get back to you all. Regards, Nada.

Sent from my iPhone

Michael Jones

Sun 4/19/2015 9:26 PM

Sent Items

Dr. Nada,

We have published our local changes to the internet. Here's a list of what we have done and what we have yet to do, so you can easily see the changes.

Fixed:

- Associate is now Business Contact

- Summaries added to Animal and Breeding pages

- Clarification message added in birth create (so users know how to proceed if the offspring dropdown is empty)

- Clarification message added in Animal create/edit (so users know how to proceed if they entered the wrong sex)

- Animal create page has been updated to make Sex and Maturity (adult/offspring) options more clear

- Admin excel sheet / summaries page now includes all user's data

- Every instance of mother changed to dam, father changed to sire, child changed to offspring

- Offspring Performance page should now be fixed

- Pregnancy field under breeding has been added

- Actual Birthing Date under breeding has been added

- Ranges have been added to Animal birth weight / weaning weight

- All features are now accessible (until PayPal is integrated)

- On the Animal page, there is now a "Health Records" link with the new health-related fields you requested. We felt this was more of what you were wanting, and hope you like it. Otherwise we can make them normal fields.

- Due to time restraints, Goat (Milk) and Sheep have been removed from the species list. The breed list for Sheep would require quite some time, and we are not sure that we will be able to solve this issue. Goat (Milk) can be re-added with a warning if you wish, but we advise keeping it removed until there is actual support on the website for it.

- The error where an admin claims ownership of an animal after editing it is fixed.

TODO:

- Public pages have not been updated yet

- Video and help sections have not yet been added

- Direct solution to monitoring user data such as animal weights has not yet been solved.

Let us know any questions, comments or concerns for what has been done or what needs to be done.

Thanks, Michael

## A.4 Source Code

**Full source code on CD**