LIVESTOCK MANAGEMENT INFORMATION SYSTEM

PRESENTED BY:
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INTRODUCTION

• The livestock industry is one of the most important drivers of the agriculture industry in Malaysia. It provides food in the form of useful protein to the population.

• The Livestock Management Information System (Livestock MIS) aims to increase the efficiency of livestock farming.
METHODOLOGY
RAPID APPLICATION DEVELOPMENT (RAD)
INTERVIEW USER

AGRICULTURE STUDENT  FROM UNIVERSITY PUTRA MALAYSIA

• Name of user : Nurul Syafiq Binti Norsam
• Student currently in the 4th year of studying Bachelor in Agriculture Science (Animal Science) at University Putra Malaysia
• Involved directly in the management of livestock in the UPM farms as part of her academic education in the form of classes and field work.
• Provided the user requirements for the Livestock Management System

INFORMATION GATHERED

• Sample Data
• Feed Formulation
• Expected Meat Carcass Formula
• Requirements Gatherings & Confirmation
## BACKGROUND STUDY

<table>
<thead>
<tr>
<th></th>
<th>Tambero.com</th>
<th>Farmwizard.co.uk</th>
<th>Cattlemax.com</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Livestock Record</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Produce report</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Graphical Analysis</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Weather forecast</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Platform</strong></td>
<td>Desktop with mobile version</td>
<td>Desktop with mobile version</td>
<td>Desktop and mobile application</td>
</tr>
</tbody>
</table>
FUNCTIONAL REQUIREMENTS

- Allow users to add, update, delete information regarding their livestock in the inventory.
- Allow users to produce a milk production statistics report.
- Allow users to produce a health statistics report.
- Allow users to produce a vaccination report.
- Allow users to calculate feed formulation for livestock.
- Allow users to calculate expected meat carcass.
SOFTWARE ARCHITECTURE

Client-Server Architecture

Deployment Diagram:

[Diagram showing client-server architecture with elements labeled: Web Browser, Web Server, Web Interface, Database Server, Database Interface, MySQL Database]
IMPLEMENTATION

Hardware
• Personal computer (windows 10)
• 64-bit processor

Software Technology
• XAMPP
• APACHE
• MYSQL
• PHP
• HTML
• CSS
• Adobe Dreamweaver CS6
RESULTS AND DISCUSSION
WELCOME TO THE LIVESTOCK MANAGEMENT SYSTEM!

A software for the sole purpose of livestock management. Manage your farm efficiently with the variety of features provided by us. This software has several features that include inventory management, calculating feed formulation, calculating expected carcasses, generate milk production report analysis, generate livestock health report analysis, and generate vaccinations report. Managing the livestock in your farm would have never been easier!
LIVESTOCK INVENTORY

Add new livestock to inventory

Edit Inventory Profile

ENTER DETAILS

Tagging ID
Breed
Vaccination Date
Dehorning Date
Body Maintenance
Body Weight (Kg)
Extra Pregnancy diagnosis date
Submit

Insert details in form and submit this form to add inventory
LIVESTOCK FEED FORMULATION

FEED FORMULATION FOR THIS LIVESTOCK

Weight (KG): 350
Fat Percentage: 3
Total Feed Needed: 14 KG = Concentrate: 8.4 KG & Forage: 5.6 KG

Nutrient requirement of the feed:

<table>
<thead>
<tr>
<th>ENERGY (Mcal)</th>
<th>PROTEIN (g)</th>
<th>PHOSPHORUS (g)</th>
<th>CALCIUM (g)</th>
<th>VITAMIN A (1000 IU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.15</td>
<td>459.8</td>
<td>13.97</td>
<td>18.15</td>
<td>27</td>
</tr>
</tbody>
</table>
EXPECTED CARCASS

EXPECTED CARCASS CALCULATOR

Insert values into this form and press the calculate button to calculate the expected carcass.
## LIVESTOCK REPORTS

### MILK PRODUCTION INVENTORY

<table>
<thead>
<tr>
<th>Tagging ID</th>
<th>Milk Yield</th>
<th>Milk Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>67890</td>
<td>45</td>
<td>20</td>
</tr>
</tbody>
</table>

### VACCINATION SUMMARY

<table>
<thead>
<tr>
<th>Tagging ID</th>
<th>Latest Vaccination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345</td>
<td>2016-02-20</td>
</tr>
<tr>
<td>67890</td>
<td>2016-02-15</td>
</tr>
</tbody>
</table>

### HEALTH INVENTORY

<table>
<thead>
<tr>
<th>Tagging ID</th>
<th>Disease</th>
<th>Date Examined</th>
<th>Date Carded</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345</td>
<td>Mange</td>
<td>2016-02-07</td>
<td>2016-02-10</td>
</tr>
<tr>
<td>67890</td>
<td>Parasite</td>
<td>2016-02-12</td>
<td>2016-02-15</td>
</tr>
</tbody>
</table>

*Note: Images include tables and charts.*
STATISTICAL REPORTS

MILK PRODUCTION ANALYSIS
DATE: 2016-11-30 TO 2016-12-31

DISEASE ANALYSIS
DATE: 2016-12-01 TO 2016-12-31
CONCLUSION

• This system is developed to assist farmers in managing their livestock and improving productivity
• The development of the livestock MIS is aimed as a more simple, user-friendly system for the farmers to be able to manage their livestock for productivity and monitoring purposes
• However, there are many improvements and enhancements that can be made in order to improve the Livestock MIS as a whole for future work.
CONCLUSION

Future Work

• User interface could be designed to become more user-friendly especially for new users to the system.
• New functionalities should be added to add variety to the system
• System must be ready to host increasing number of users.
• More graph analysis representation should be added to the system