

Cattle Management System

PROJECT PROPOSAL

1.1 Background to the Problem

Bangladesh is an agricultural country. About 20% of the population of Bangladesh earn their livelihood through work associated with raising cattle and poultry. Statistics show that about 2.9% of the national GDP is covered by the livestock sector, and its annual rate of growth is 5.5% still the cattle industry lacks technological advancements. If better technological solutions are applied, then the growth rate of the cattle industry in Bangladesh can be increased. Almost all of the cattle farms use old school technology for managing the farm which is not efficient.

1.2 Solution to the Problem

The objective of our project is to help the farmers in managing their cattle. A cattle management system can help farmers by keeping track of medical treatment, breeding practices, birth, and death effectively. Using the cattle management system farmers will have the flexibility to manage the entire system from a single application.

The cattle management system will assist farmers to record and keep track of their cattle from birth to all the way to sale. The system will keep track of detailed cattle record, due dates, sale, treatment, animal breed and death. The system will also manage feeds and pasture locations.

The basic functionalities of the cattle management system are keeping track of animal inventories, keep up with cattle purchase and sales, maintaining complete breeding, keeping pregnancy record and manage health treatments. These functionalities will help the farmers maintain their farm efficiently.

The target users of our solution are farmers, small and large cattle farm owners. In order to become more sustainable and profitable in a changing global economy, farmers need to master multiple aspects, including resource management, water management, feed management, property management, and more. Our solution will help the farmers in all mentioned above problems.

Currently, not many solutions are available for this problem in Bangladesh. There are few applications for managing farms, but they are not focused on cattle management. Those applications lack features, but our cattle management system all in one solution for any small, medium or large cattle farm. So, cattle management system will be more helpful for the farmers.

REQUIREMENTS ANALYSIS

Functional Requirements:

1. Registration:

- 1.1 The seller and buyer both need to register before using the website.
- 1.2 After registration buyer and seller can start using the website.
- 1.3 After registration buyer and seller can put their request regarding selling or buy cattle.

Priority Level: High

Precondition: user must register with the system.

2. User Login:

- 2.1 The website will allow users to login with their given username and password.
- 2.2 The login credentials (username and password) will be verified with database records.
- 2.3 If the login successful the home page of the user account will be displayed.
- 2.4 If the username and/or password has been inserted wrong, the random verification code will be generated and sent to the user's email address by the system to retry login.

Priority Level: High

Precondition: user must have a valid username and password.

3. Owner/Admin Profile:

- 3.1 The owner/admin will be provided with a login id and password.
- 3.2 The owner/admin can view the cattle available for selling or purchase.
- 3.3 The owner/admin will also have a unique interface where he can manage the data of cattle available for sale/purchase.
- 3.4 The owner/admin can add or remove any cattle from the system.

Priority Level: High

Precondition: user must be an owner/admin.

4. Buyer/Customer Profile:

- 4.1 Every customer will be given a unique buyer/customer id.
- 4.2 The buyer/customer will register with their name, mobile number, email, and address.
- 4.3 The buyer/customer can choose any cattle among the animals available on the website.
- 4.4 The buyer/customer can search cattle according to their requirement like breed, color etc.

Priority Level: High

Precondition: user needs to register as a buyer/customer before using the system.

5. Seller Profile:

- 5.1 Every seller will also be given a unique id.
- 5.2 The seller will register with his name, mobile number, e-mail, and address etc.

5.3 The seller will put the information on the cattle which they want to sell like the cattle breed, color, price, etc.

Priority Level: High

Precondition: user needs to register as seller before using the system.

6. Payment Method:

6.1 The buyer and sellers need to pay money when they buy/sell cattle.

6.2 The buyer/seller can pay money using different options available like cash/net banking/ATM card etc.

6.3 The payment portal would use a payment gateway for collecting money.

6.4 Once payment is made, the receipt of payment will be generated automatically and the receipt will be sent to the administrator.

6.5 The buyer and seller will also receive receipt regarding the payment.

Priority Level: High

Precondition: user must make payment using valid information.

7. Update User Information:

7.1 The attributes of the buyer and seller should be editable.

7.2 These attributes include the buyer and sellers phone number, address, e-mail, etc.

7.3 The buyer and seller can get their details changed from the owner/admin.

Priority Level: Medium

Precondition: user type must be an admin/owner.

8. Cattle Profile:

8.1 The seller and buyer will put the information about the cattle to be sold /purchased.

8.2 The number of cattle, cattle type, the breed, cost, etc. will be shown.

Priority Level: High

Precondition: user must be registered to the system.

9. Update Cattle Information:

9.1 The attributes of the cattle should be editable.

9.2 These attributes include cattle cost, number of cattle to be bought or sold etc.

9.3 The buyer and seller will be able to edit cattle details.

9.4 The buyer and seller can get their cattle details changed from the owner/admin.

Priority Level: Medium

Precondition: user type must be owner/admin.

10. Log out:

10.1 The admin, buyer and seller can log out the system.

Priority Level: High

Precondition: user must be registered to the system.

Non-functional Requirements:

1. Reliability:

1.1 Only registered/valid user can buy and sell cattle from the website.

- 1.2 Users can report if they face any problem with the system.
- 1.3 Users can report any problem from feedback page by just providing their email.
- 1.4 Users don't need to log in into the system to report any problem.

Priority Level: High

Precondition: Ensure users failure free operation.

2. Security:

- 2.1 Users will get 2 step verification for securing their account.
- 2.2 Users will be able to reset their password using their phone number or email if they forget their password.
- 2.3 The system will notify users via email if invalid users try to log into their account.
- 2.4 Users will be able to delete their account completely if they don't want to use the service anymore.

Priority Level: High

Precondition: Only registered user and admin can log into the system.

3. Portability:

- 3.1 A valid user will be able to log into the system.
- 3.2 Users will be able access the system with their smartphone or computer.

Priority Level: High

Precondition: Users can access the system in every environment.

4. Scalability:

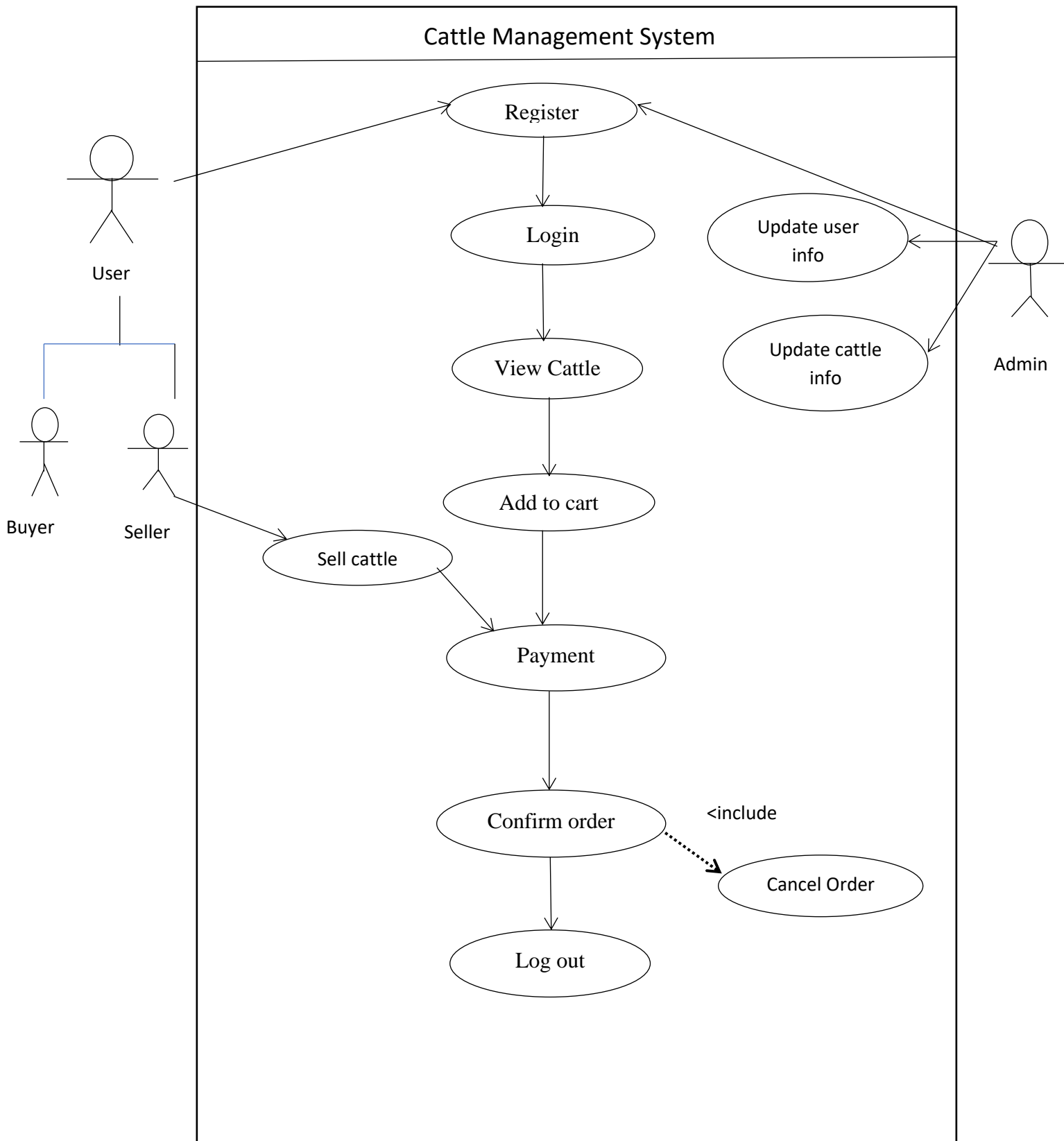
- 4.1 The landing page of the system supports 10000 users at once without slowing down the system.
- 4.2 Users will be logged out of the system if they remain inactive for more than 3 minutes.
- 4.3 Users will be able to reload the system.

Priority Level: High

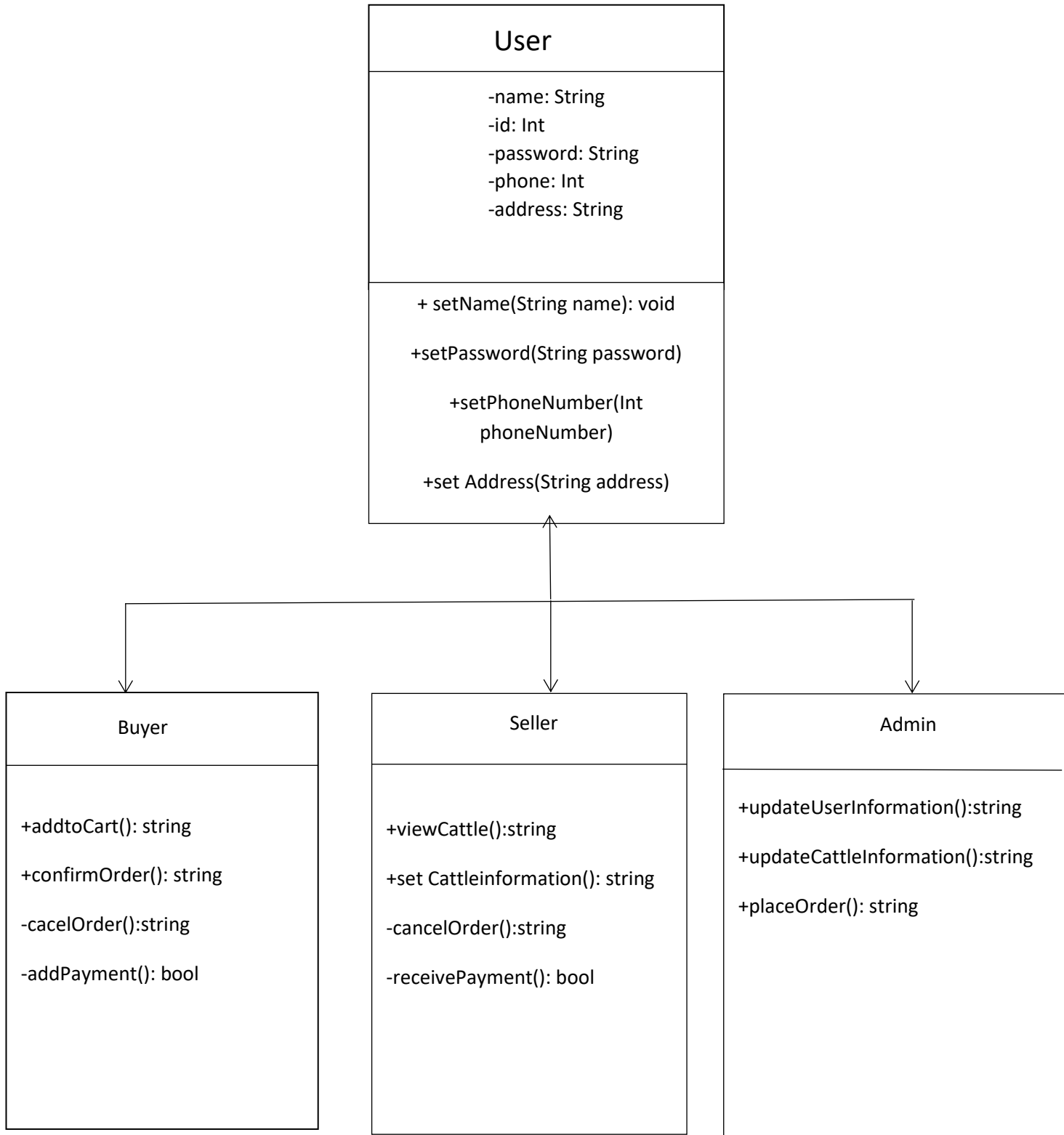
Precondition: Only admin/owner can access the system.

DIAGRAM

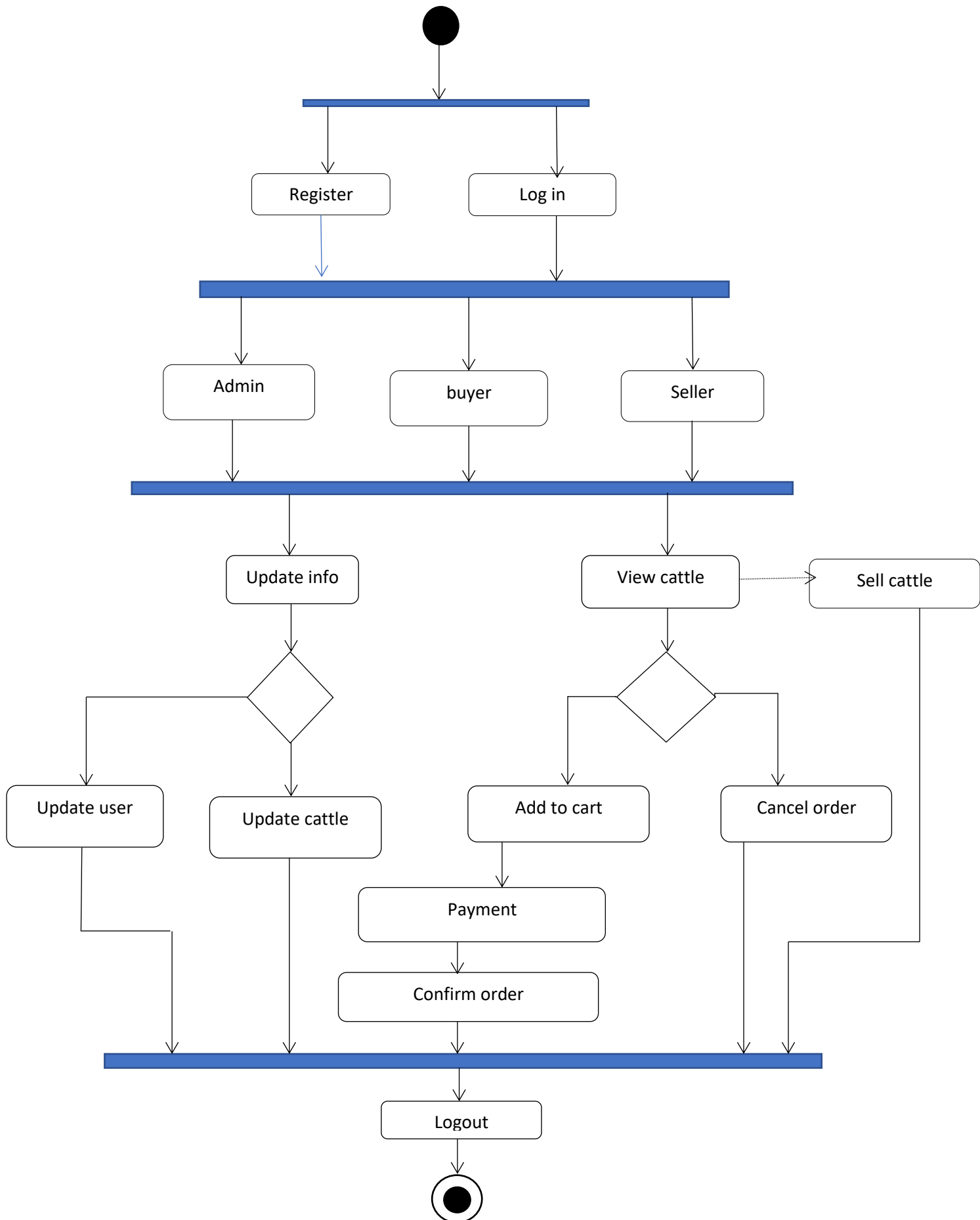
USE CASE DIAGRAM:



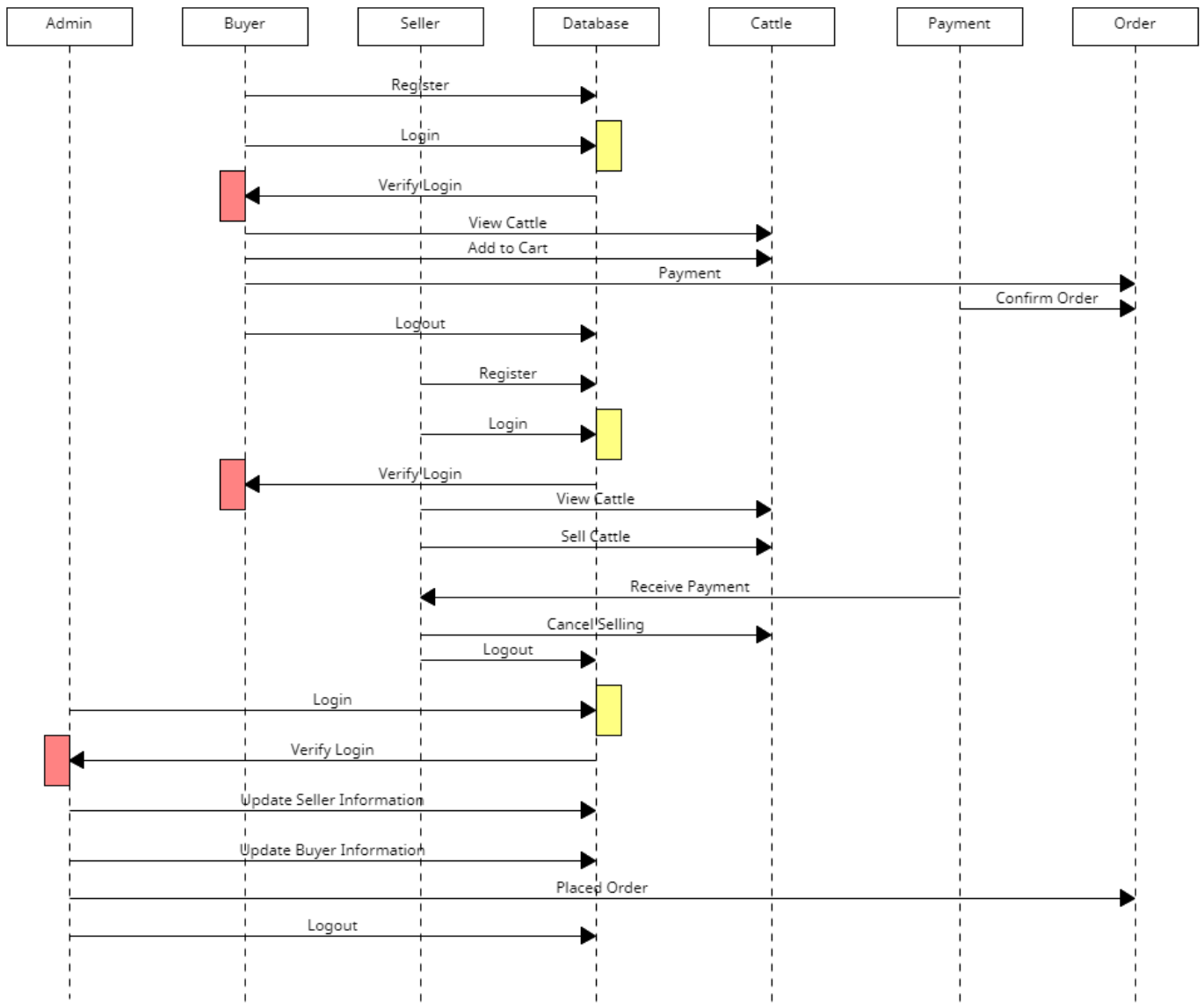
CLASS DIAGRAM:



ACTIVITY DIAGRAM:



SEQUENCE DIAGRAM:



PROCESS MODEL

We selected the waterfall model for our project.

Why choose Waterfall Model?

Our project is cattle management system. For our project we are using waterfall model because the requirements of our project are well-understood and documented. Project requirements approved prior to the beginning of the development so there is commitment to deliver a specific set of features which makes the final product more predictable.

Why choose waterfall model over other model?

1. Waterfall is a tried-and-true method that is pretty straightforward and expectation are clear.
2. In Waterfall model developers and testers can focus on writing code and writing test cases.
3. In waterfall model what is going to be delivered is more predictable.
4. The spiral model is a lot more complex. Whereas waterfall model is simple and easy. Spiral model is applicable for large projects and it is highly expensive.
5. The software's that are made using the V-model, the number of defects is greater in comparison of software made using the waterfall model.
6. The Agile Team members are interchangeable, as a result, they work faster. There is also no need for project managers because the projects are managed by the entire team.
7. Scrum is value-based with shorter iterations and waterfall is schedule-based with clearly estimated costs and plan.
8. In extreme programming model constant involvement of the customer in the process of software development but in waterfall model constant involvement of customers is not required.

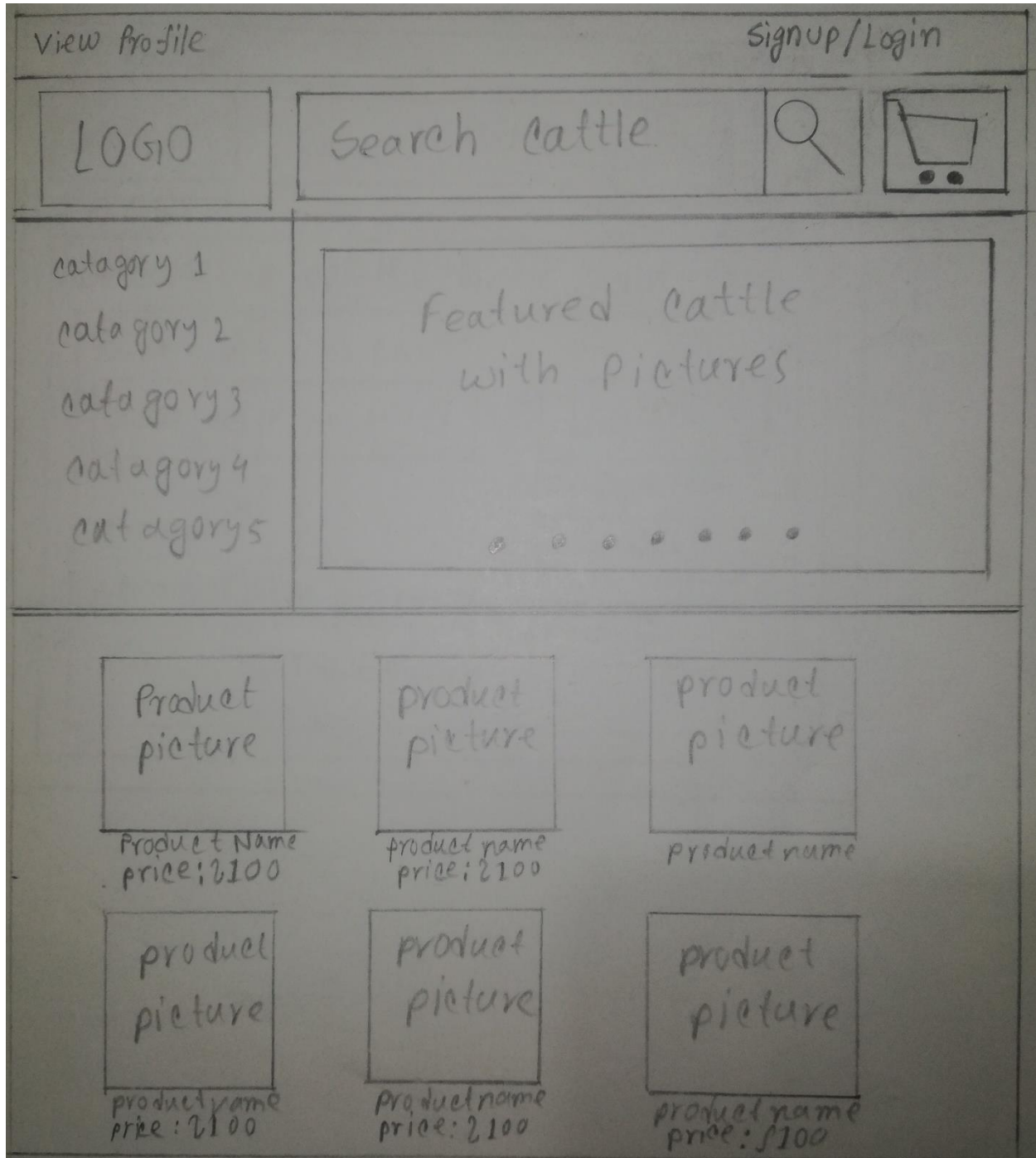
Roles and Responsibilities:

In Waterfall teams there are four typical roles.

1. **Developer:** A developer is a person who creates the code. This is one of the most important roles in Waterfall teams. Waterfall programmers must avoid bugs during their work because one single defect may be a reason to run the entire project from the very beginning.
2. **Tester:** The role of a tester is also extremely important. In Waterfall projects, tests are usually conducted at the final stages of their realization. That is why testers have to find all bugs in final products and return the software to the developers so that they can fix all defects.
3. **Business Analyst:** A business analyst is a person responsible for making the software product popular in the digital market. His main task is to write business strategies.
4. **Project Manager:** A project manager is the main person in every Waterfall team. He is responsible for the quality of final software. His main task is to manage the projects and to subdivide tasks among other team members.

Interface Design

1. Home page:



2. Login Page:

A hand-drawn sketch of a login page for a website called 'cattle'. The page has a header with 'View Profile' on the left and 'signup/Login' on the right. Below the header is a navigation bar containing a 'Logo' box, a 'Search cattle' text input, a magnifying glass icon, and a shopping cart icon. The main content area is enclosed in a large rectangle and contains the text 'Welcome to cattle! Please Login'. Below this text is a login form with two columns. The left column has a label 'Phone Number or Email*' above a text input box containing 'please enter your phone/Email', followed by a label 'Password*' above another text input box containing 'Please Enter your password'. Below the password box is a link 'Forgot Password?'. The right column has a 'Login' button, followed by the text 'or, Login with', and then two buttons labeled 'Facebook' and 'Google'.

View Profile

signup/Login

Logo

Search cattle

Welcome to cattle! Please Login

Phone Number or Email*

please enter your phone/Email

Login

or, Login with

Password*

Please Enter your password

Facebook

Google


Forgot Password?

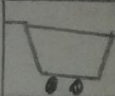
3. Register Page:

[View Profile](#)[Signup](#)[Login](#)

Logo

Search cattle





Create your Account

Already member?
[Login here](#)

Phone Number*

Please enter your phone number

Full name*

Enter your first and last name

Password*

Minimum 6 characters with number and a letter

Address:

Enter full Address




Gender

Select

Email:

Enter valid Email

Birthday

Month  Day  Year 

SIGN UP

4. Admin Profile:


View Profile

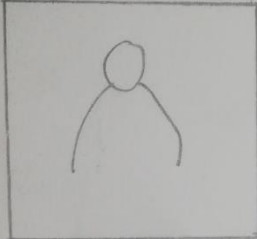
Signup/Login

LOGO

Search

Q





Search Cattle

Q

Search user

Q

Edit | Change

Name :

Address :

Phone :

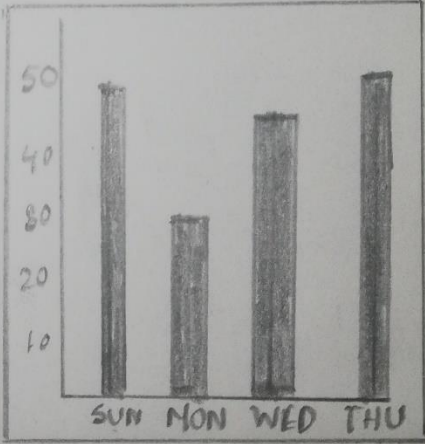
Email :

Gender :

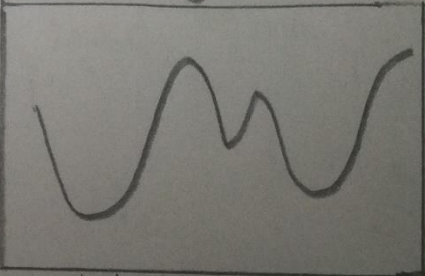
DOB :

Update User

Update Cattle



Day	Sales
SUN	48
MON	30
WED	45
THU	50



Website Traffic

5. Update Cattle:


View Profile

signup/Login

LOGO

Search

Q



cattle ID: :

Cattle Type :

Gender :

Breed :

Weight :

Condition:

Description:

Search cattle

Q

ADD

Remove

cattle id	Type	Gender	Breed	Weight	Condition	Des...


6. Customer Profile:

View Profile

Signup / Login

LOGO

Search



Edit

Username

Registered: 7th Nov 2022

Name :

Address :

Phone :

Email :

Gender :

DOB :

Recent Orders :

See More

Product
Photo

Product Name
Price: \$100

Product
Photo

Product Name
Price: \$100

Product
Photo

Product Name
Price: \$300

7. Update user:

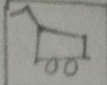
View Profile

Sign up / Login

LOGIO

Search

Q



USER ID :

Name :

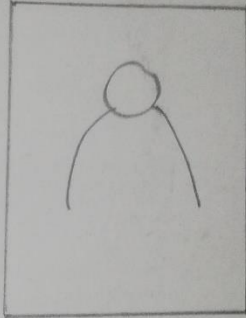
Address :

Phone :

Email :

Gender :

DOB :



Change

Search User

Q

Add

Remove

USER ID	Name	Address	Email	Gender	DOB

8. Seller Profile:

View Profile

Signup / Login

LOGO

Search

Edit

Username

Registered: 7th Nov 2022

Name :

Address :

Phone :

Email :

Gender :

DOB :

Recent Listing:

See More

Product Photo

Product Name
Price: \$100

Product Photo

Product Name
Price: \$100

Product Photo

Product Name
Price: \$300

9. Product Page:

[View Profile](#)[Sign up/Login](#)

LOGO

Search

Q

Cattle Pictures

.....

Product Title

₹ 20000

Quantity

-

 1

+

Buy Now

Add to Cart

Cattle type:

Gender :


Breed :

Weight :

Condition :

Description:

10. Order Page:

View Profile		Sign up/Login									
<div style="border: 1px solid black; padding: 2px; display: inline-block;">LOGO</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Search</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;"></div>								
<div style="display: flex; flex-direction: column; gap: 10px;"><div>Deliver To : <div style="border: 1px solid black; width: 480px; height: 30px;"></div></div><div>Contact : <div style="border: 1px solid black; width: 480px; height: 30px;"></div></div><div>Address : <div style="border: 1px solid black; width: 480px; height: 30px;"></div></div></div>											
<div style="border: 1px solid black; padding: 10px;"><div style="display: flex; justify-content: space-between; align-items: flex-start;"><div style="border: 1px solid black; padding: 5px; text-align: center;">Product picture</div><div><p>Product Title 01</p><p>Quantity: 01</p><p>Price: ₹ 20000</p></div></div></div>											
<div style="border: 1px solid black; padding: 10px;"><div style="display: flex; justify-content: space-between; align-items: flex-start;"><div style="border: 1px solid black; padding: 5px; text-align: center;">Product picture</div><div><p>Product Title 02</p><p>Quantity: 04</p><p>price: ₹ 45000</p></div></div></div>											
<div style="display: flex; justify-content: space-around;"><div style="border: 1px solid black; padding: 5px; text-align: center;">Standard Delivery ₹ 60</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Express Delivery ₹ 120</div></div> <div style="margin-top: 10px;">Voucher: <div style="border: 1px solid black; width: 140px; height: 30px;"></div></div> <div style="margin-top: 10px;">Promo code : <div style="border: 1px solid black; width: 140px; height: 30px;"></div></div>		<div style="border: 1px solid black; padding: 10px;"><h3 style="margin: 0;">Order Summary</h3><table style="width: 100%;"><tr><td style="width: 60%;">Items Total</td><td>₹ 65000</td></tr><tr><td>Delivery fee</td><td>₹ 120</td></tr><tr><td>Total Payment</td><td>₹ 65120</td></tr><tr><td>Total</td><td>₹ 66120</td></tr></table><div style="border: 1px solid black; padding: 10px; text-align: center; margin-top: 10px;">Place Order</div></div>		Items Total	₹ 65000	Delivery fee	₹ 120	Total Payment	₹ 65120	Total	₹ 66120
Items Total	₹ 65000										
Delivery fee	₹ 120										
Total Payment	₹ 65120										
Total	₹ 66120										


11. Payment:

[View Profile](#)[Sign up / Login](#)

LOGO

Search

Q



Select Payment Method:

☒ Card

bKash

Nagad

Card Number

Expiry date

08

✓

20

✓

CVC

Zip code

Test Planning

01. User Login:

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_2.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): Medium		Test Executed by: Shuvo		
Module Name: User Login		Test Execution date: 13-Nov-2022		
Test Title: verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter username 4. Enter password 5. Click submit	Username: Shuvo Password: 7895630	User should login into the application	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_2.2			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Medium			Test Executed by: Shuvo	
Module Name: User Login			Test Execution date: 13-Nov-2022	
Test Title: verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter username 4. Enter password 5. Click submit	Username: Shuvo Password: 3369780	User should login into the application	Couldn't log into the system.	Fail
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

02. Registration:

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_1.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): Medium		Test Executed by: Shuvo		
Module Name: Registration		Test Execution date: 13-Nov-2022		
Test Title: Register user with valid phone number				
Description: Test website registration page				
Precondition (If any): User must use valid phone number				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to registration page 3. Enter email address 4. Enter phone number 5. Enter password 6. Click registration 7. Verify phone 8. Enter verification code 9. Click confirm	Email: Shuvo@gmail.com Phone: 01535751668 Password: 33667700 Verification Code: 788568	User should register into the website	As expected	Pass
Post Condition: User is validated with database and successfully created an account.				

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_1.2			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Medium			Test Executed by: Shuvo	
Module Name: Registration			Test Execution date: 13-Nov-2022	
Test Title: Register user with valid phone number				
Description: Test website registration page				
Precondition (If any): User must use valid phone number for registration				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to registration page 3. Enter email address 4. Enter phone number 5. Enter password 6. Click registration 7. Verify phone 8. Enter verification code 9. Click confirm	Email: Shuvo@gmail.com Phone: 535751668 Verification Code: 788568	User should register into the website	User did not receive any verification code	Fail
Post Condition: User is validated with database and successfully created an account.				

3. Admin Profile:

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_3.1			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Low			Test Executed by: Shuvo	
Module Name: Admin Profile			Test Execution date: 13-Nov-2022	
Test Title: Test admin profile for spelling mistake				
Description: Test website admin profile page for spelling mistake				
Precondition (If any): User must log in as an admin.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile		User should not find any spelling mistake	As expected,	Pass
Post Condition:				

4. Customer Profile:

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_4.1			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Low			Test Executed by: Shuvo	
Module Name: Customer Profile			Test Execution date: 13-Nov-2022	
Test Title: Test customer profile if all the elements are loading correctly				
Description: Test website customer profile if all the elements are working correctly				
Precondition (If any): User must log in as customer.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile		All the elements of customer page should work properly	As expected,	Pass
Post Condition:				

5. Seller Profile:

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_5.1			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Low			Test Executed by: Shuvo	
Module Name: Seller Profile			Test Execution date: 13-Nov-2022	
Test Title: Test seller profile for spelling mistake				
Description: Test website seller profile page for spelling mistake				
Precondition (If any): User must log in as seller				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile		User should not find any spelling mistake	As expected,	Pass
Post Condition:				

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_5.2			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Low			Test Executed by: Shuvo	
Module Name: Seller Profile			Test Execution date: 13-Nov-2022	
Test Title: Test seller profile if all the elements are loading correctly				
Description: Test website seller profile if all the elements are working correctly				
Precondition (If any): User must log in as seller.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile		All the elements of customer page should work properly	As expected,	Pass
Post Condition:				

6. Cattle Profile:

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_8.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): Low		Test Executed by: Shuvo		
Module Name: Cattle Profile		Test Execution date: 13-Nov-2022		
Test Title: Test cattle profile for spelling mistake				
Description: Test website cattle profile page for spelling mistake				
Precondition (If any): User must log into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click any product/cattle ad		User should not find any spelling mistake	As expected,	Pass
Post Condition:				

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_8.2		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): Low		Test Executed by: Shuvo		
Module Name: Cattle Profile		Test Execution date: 13-Nov-2022		
Test Title: Test cattle profile for spelling mistake				
Description: Test website cattle profile page for spelling mistake				
Precondition (If any): User must log into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click any product/cattle ad		User should not find any spelling mistake	User found few spelling mistakes	Fail
Post Condition:				

7. Payment:

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_6.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): High		Test Executed by: Shuvo		
Module Name: Payment		Test Execution date: 13-Nov-2022		
Test Title: Test payment				
Description: Test payment system of the website				
Precondition (If any): User must log into the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click any product/cattle ad 7. Click buy now 8. Click place order 9. Enter Card information 10. Click pay now 11. Enter Pin 12. Click confirm	Card Number: 2412-7512-3412-3456 Pin: 1998	User should be able to make the payment	As expected,	Pass
Post Condition:				

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_6.1			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): High			Test Executed by: Shuvo	
Module Name: Payment			Test Execution date: 13-Nov-2022	
Test Title: Test payment				
Description: Test payment system of the website				
Precondition (If any): User must use valid payment methods				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click any product/cattle ad 7. Click buy now	Card Number: 2412-7512-3412-3456 Pin : 9918	User should be able to make the payment	User was not able to make the payment	Fail

8. Click place order 9. Enter Card information 10. Click pay now 11. Enter Pin 12. Click confirm				
Post Condition: User successfully made the payment.				

8. Update User:

Project Name: Cattle Management System			Test Designed by: Shuvo	
Test Case ID: FR_7.1			Test Designed date: 13-Nov-2022	
Test Priority (Low, Medium, High): Low			Test Executed by: Shuvo	
Module Name: Update user			Test Execution date: 13-Nov-2022	
Test Title: Test update user if all the elements are loading correctly				
Description: Test update user page if all the elements are working correctly				
Precondition (If any): User must log in as an admin.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile 7. Click on update user		All the elements of customer page should work properly	As expected,	Pass
Post Condition:				

9. Update Cattle:

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_9.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): Low		Test Executed by: Shuvo		
Module Name: Update cattle		Test Execution date: 13-Nov-2022		
Test Title: Test update cattle if all the elements are loading correctly				
Description: Test update cattle page if all the elements are working correctly				
Precondition (If any): User must log in as an admin.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password		All the elements of customer page should work properly	As expected,	Pass

5. Click log in				
6. Click view profile				
7. Click on update cattle				
Post Condition:				

10. Log out

Project Name: Cattle Management System		Test Designed by: Shuvo		
Test Case ID: FR_10.1		Test Designed date: 13-Nov-2022		
Test Priority (Low, Medium, High): High		Test Executed by: Shuvo		
Module Name: Log out		Test Execution date: 13-Nov-2022		
Test Title: Test log out module of the system				
Description: Test if log out functionality is working correctly				
Precondition (If any): User must log in as valid user.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to log in page 3. Enter email/phone 4. Enter password 5. Click log in 6. Click view profile 7. Click on log out		User should be able to log out the website	As expected,	Pass
Post Condition:				

Effort estimation (COCOMO):

For organic project:

$$\text{Effort} = \text{PM} = \text{Coefficient}_{\langle \text{Effort Factor} \rangle} * (\text{SLOC}/1000)^P$$

$$= 2.4 * (10000/1000)^{1.05}$$

$$= 26.928$$

$$\text{Development time} = \text{DM} = 2.50 * (\text{PM})^T$$

$$= 2.50 * (26.928)^{0.38}$$

$$= 8.738$$

$$\text{Required number of people} = \text{ST} = \text{PM}/\text{DM}$$

$$= 26.928/8.738$$

$$= 3.082 \approx 4$$

Software Project Type	Coefficient <Effort Factor>	P	T
Organic	2.4	1.05	0.38
Semi-detached	3.0	1.12	0.35
Embedded	3.6	1.20	0.32

Timeline Chart:

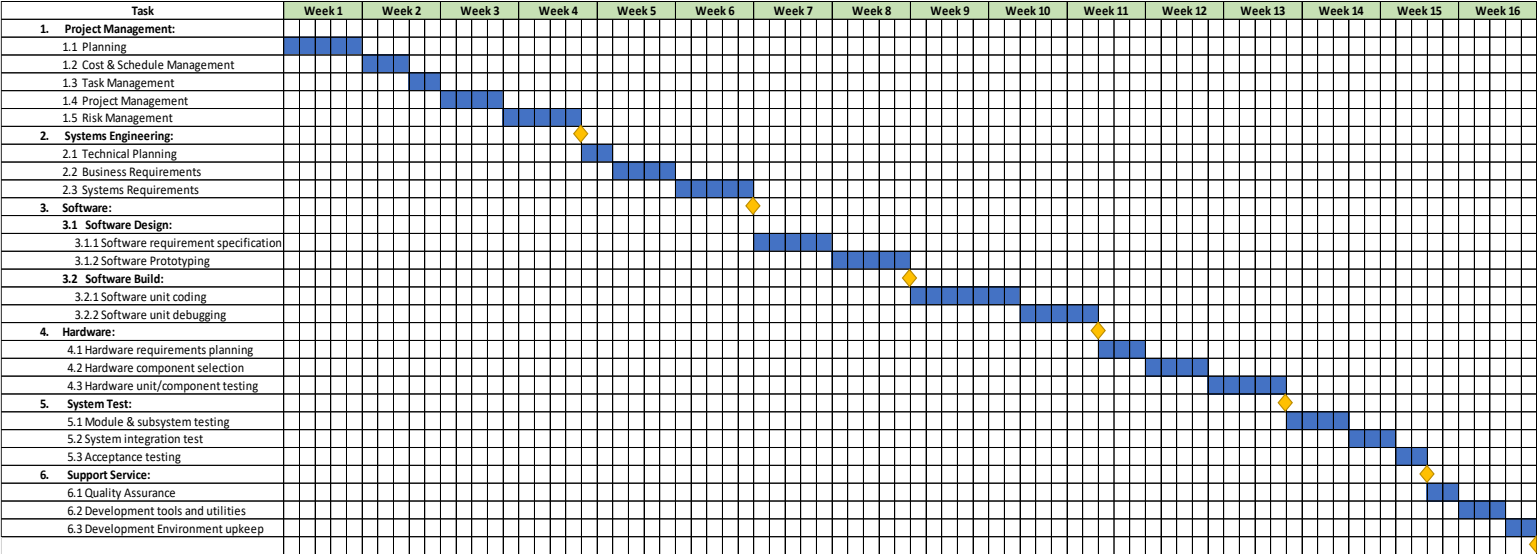
Weeks	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16
A: Adam																
B: Adam																
C: Adam																
D: Steve																
H: Steve																
I: Steve																
E: Steve																
G: Steve																
F: Andy																
J: Andy																
K: Andy																
L: Andy																
M: Andy																
N: Roger																
O: Roger																

Activity Key:

A: Overall Design
 B: Specify module 1
 C: Specify module 2
 D: Specify module 3
 E: Specify module 4
 F: Specify module 5
 G: Specify module 6

H: Code module 1
 I: Code module 2
 J: Code module 3
 K: Code module 4
 L: Code module 5
 M: Code Module 6
 N: Integration Testing
 O: System Testing

Timeline Chart Detailed:



Risk Management:

Risks	Category	Probability	Impact
Cannot accommodate changing requirements	PS	60%	3
Size estimate may be significantly low	PS	40%	3
Larger number of users than planned	PS	60%	2
End-user resist system	BU	30%	4
Less reuse than planned	PS	20%	1
Funding will be lost	CU	30%	1
Technology will not meet expectations	TE	50%	3
Lack of training on tools	DE	40%	2
Staff inexperienced	ST	70%	2
Staff turnover will be high	ST	60%	3
Error in project initial information	PS	50%	4
Additional scope added to the project	PS	70%	3
Change of design	PS	60%	3
Delay in project development	DE	50%	2
Project manager constantly adjusting schedule	DE	60%	3

EVA Analysis:

Task	Planned Effort	Actual Effort
1	10.0	10.5
2	13.0	11.0
3	9.0	12.0
4	8.5	9.0
5	15.0	13.0
6	18.0	20.5
7	11.0	10.0
8	5.0	4.5
9	13.0	14.5
10	7.0	8.0
11	4.0	5.0
12	14.5	13.0
13	17.0	
14	6.5	
15	9.0	

BCWP = 128

BCWS = 160.0

ACWP = 131

$$BAC = 7 \times 32 = 224$$

$$SPI = BCWP/BCWS = 128/160 = 0.8$$

$$SV = BCWP - BCWS = 128 - 160 = -32$$

$$CPI = BCWP/ACWP = 128/131 = 0.97$$

$$CV = BCWP - ACWP = 128 - 131 = -3$$

$$\% \text{ for completion} = BCWS/BAC = 160/224 = 0.71\%$$

[% of work scheduled to be done at this time]

$$\% \text{ complete} = BCWP/BAC = 128/224 = 0.57\%$$

[% of work completed at this time]