

ITERATION 03

Dairy Farm Management

Client Name:

Dr. Taimoor Khan

Submitted by:

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Requirements:

- The CEO/Admin of the Dairy Farm will be provided with admin account that has access to all the data of employees and the management system.
- Only the CEO/Admin can create further accounts of managers, employees, accountants and workers.
- The account has its username and password to verify whether employee's data is available or not.
- For account creation of accountant, employee or worker, the name, CNIC, gender, phone, address, password is required as an input.
- The manager of cow's expenses can view/update/delete the data of the cows, including their registration number, age etc, the selling of cows and the accountants to calculate the expenses for the cows including their food and vaccinations.
- The manager of the sales department has the data of the shops and customers and the accountants to calculate the profit/loss.
- The manager of the salaries department has the data of managers, accountants and employees to manage their pays.
- The customer's account is created by the manager of Sales Management module that includes the information and data of the customers..
- When a baby cow is born or bought from outside, the entry is made for it. It mentions the number of cattle, its weight and expenses that includes the buying amount of the cattle while making payment and the health expenses.
- The city/sector management includes the milkmen division according to the area.
- Payments received from customers are updated in their account.
- The profit/loss is calculated by the accounting cycle at the end of the month.
- Milk sheet is generated that contains the amount of milk, obtained by each cow to show the quantity of milk.

- To view the profit/loss, the graphical report is generated that consists of the amount of milk produced by all the cows for a time period against the sum of all expenses of the cows.

Use Cases:

Admin Account:

- The CEO/Admin of the Dairy Farm will be provided with admin account.
- Admin has access to all the data of employees and the management system.
- Admin can view and edit the data of the employees.

Create Account:

- Only the CEO/Admin can create the accounts of managers, employees, accountants and workers.
- The Admin will add the data of the users.
- The users can view their data and salaries etc, on their account.

Account Login:

- The account has its username and password to verify whether employee's data is available or not.
- The username can only contain letters or numbers.
- The password must contain special characters.
- Check if the username and password is available in the database.
- In case of invalid password for the username, the recovery is through phone number.

Account Requirements:

- To create a new account of accountant, employee or worker, the Name, Father Name, CNIC, Gender, Phone, Address are required to be mentioned by the user.
- The info for the username is stored in the database.
- For login, the user is asked to enter the username and password is required as input.

Cow Expenses:

- The buying of calves is managed by the Manager of the Cow's department.
- The manager views the cow's expenses and the data of the cows, including their registration number, age, health status and profitability etc.
- The accountants to calculate the expenses for the cows, including their food and vaccinations.
- The selling of aged cows or cows having bad health situation, when they cannot produce more milk and need to be sold for slaughtering. The profit after selling is also calculated by the accountant.

Sales Calculation:

- The milk is supplied to the customers via home delivery system, to shops in raw form and in packets to the market.
- The manager of the sales department has the data of the shops and customers.
- The accountants to calculate the profit/loss.

Salaries Expenses:

- The manager of the salaries department has the data of managers, accountants and employees.

Customer's Account:

- Add new customers.
- Each customer has its number, name and address etc.
- View customer's list in which the data is stored.
- Add and view all customers' payments.
- Generate/Print bills of customers.

Add New Animal:

- When baby cow is born or bought from outside, the entry is made and addAnimal() is called.
- The cattle is assigned a number for registration
- The expense for buying is mentioned.
- This cow's data entered, including the weight, birth date etc.

City/Sector Management:

- Addresses of all customers.
- With the entry of new customer, the function of storing the address of customers for delivering milk to them.

Customer bills payment:

- Bills received from customers are entered to the customer's bill portion in the customer's data.
- The bills received are summed up by the accountant of milk delivery management.

Accounting Cycle:

- The accounting cycle is conducted for each month.
- The salaries of employees are entered as an expense.
- The electricity, gas and water bills are expensed out.
- The expenses regarding buying of cows, the food and vaccinations are credited.
- The payments received from customers are debited.
- The money received by the selling of cows is debited.

Generate Milk Sheet:

- Amount of milk generated in a day.
- The milk sheet contains the amount of milk, obtained by each cow to show the quantity of milk.

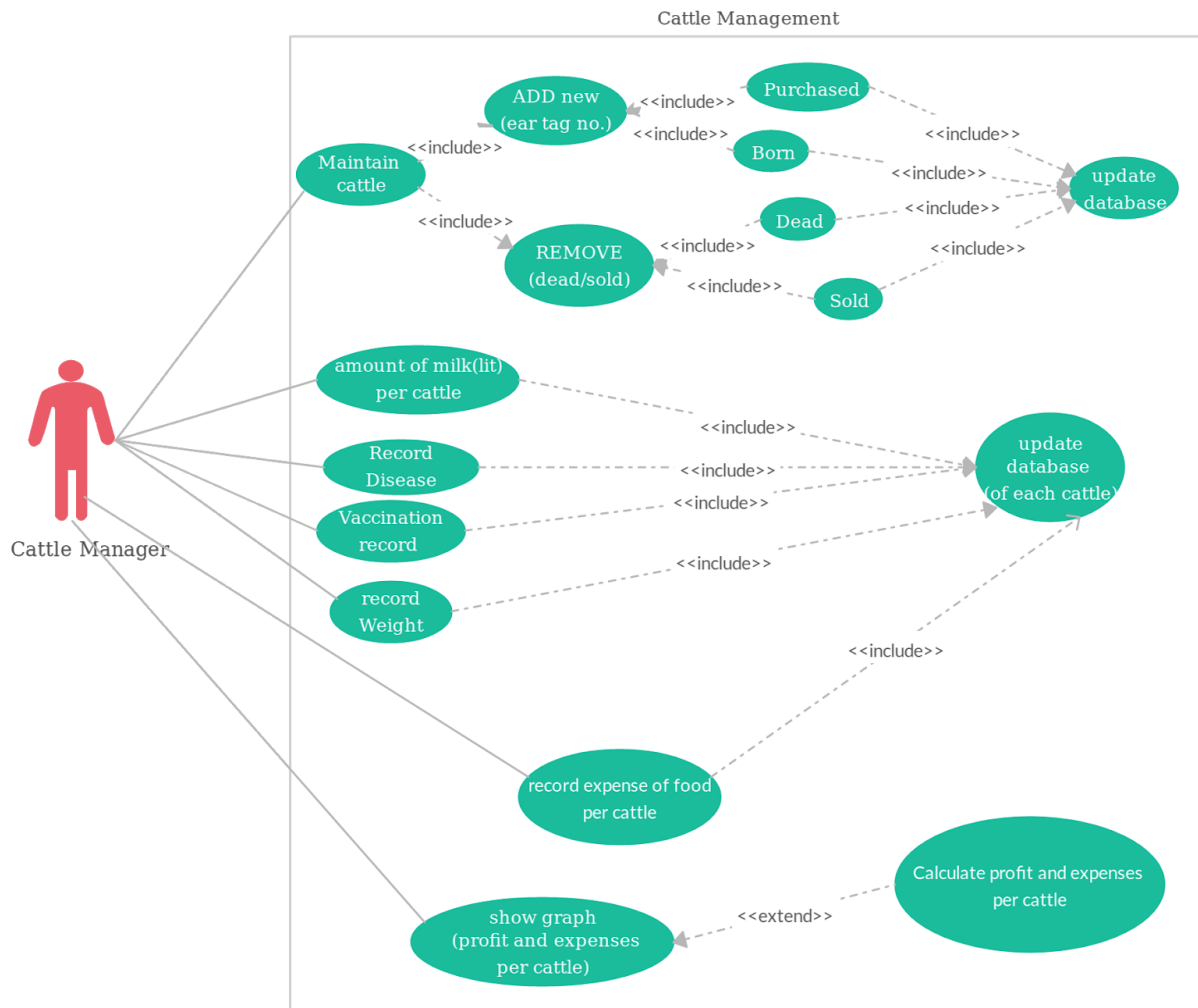
Generate Graph:

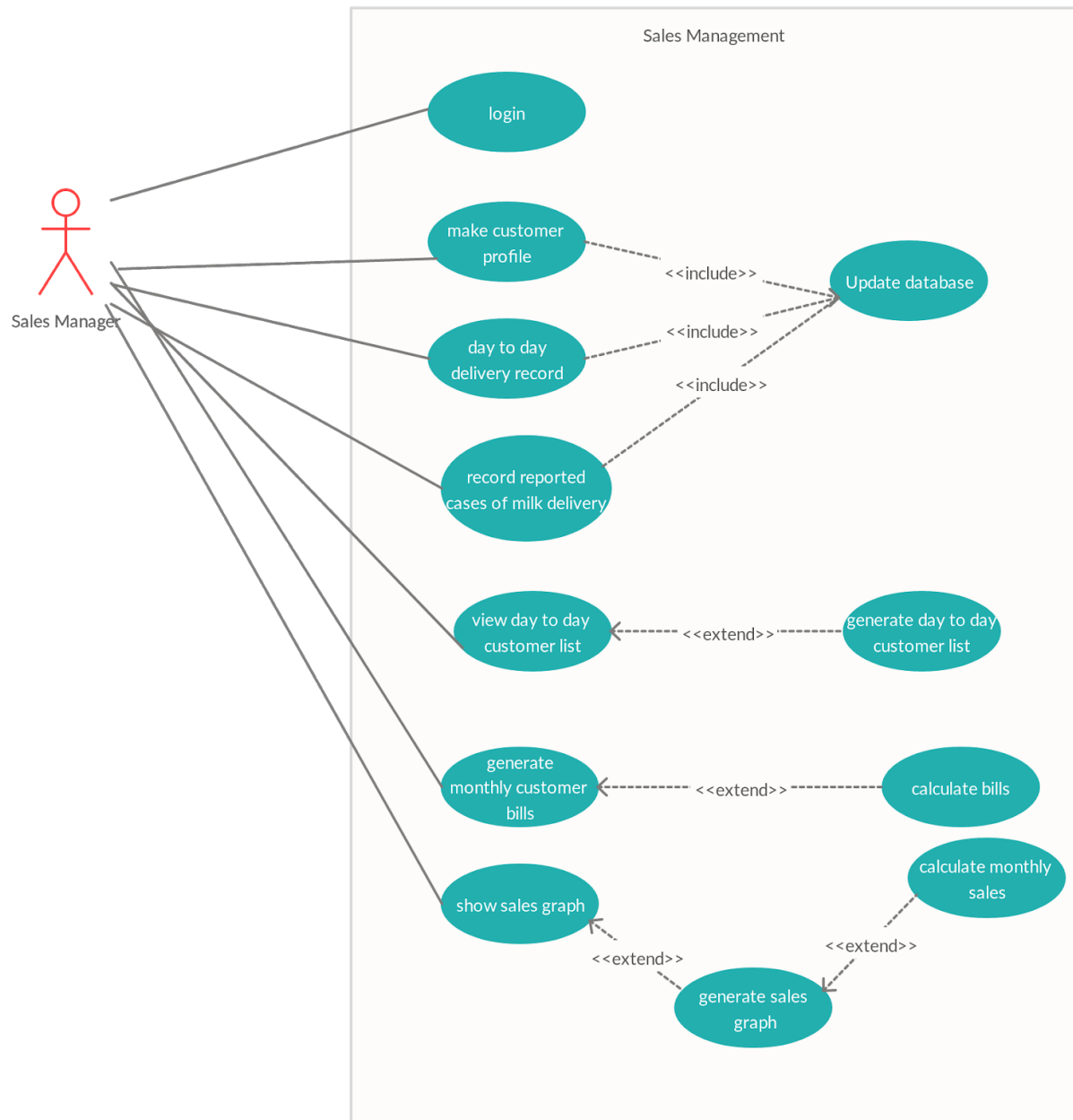
- A graph is created to check how the Cow is benefiting.
- The graph contains the amount of expenses drawn against the milk produced by the cow.

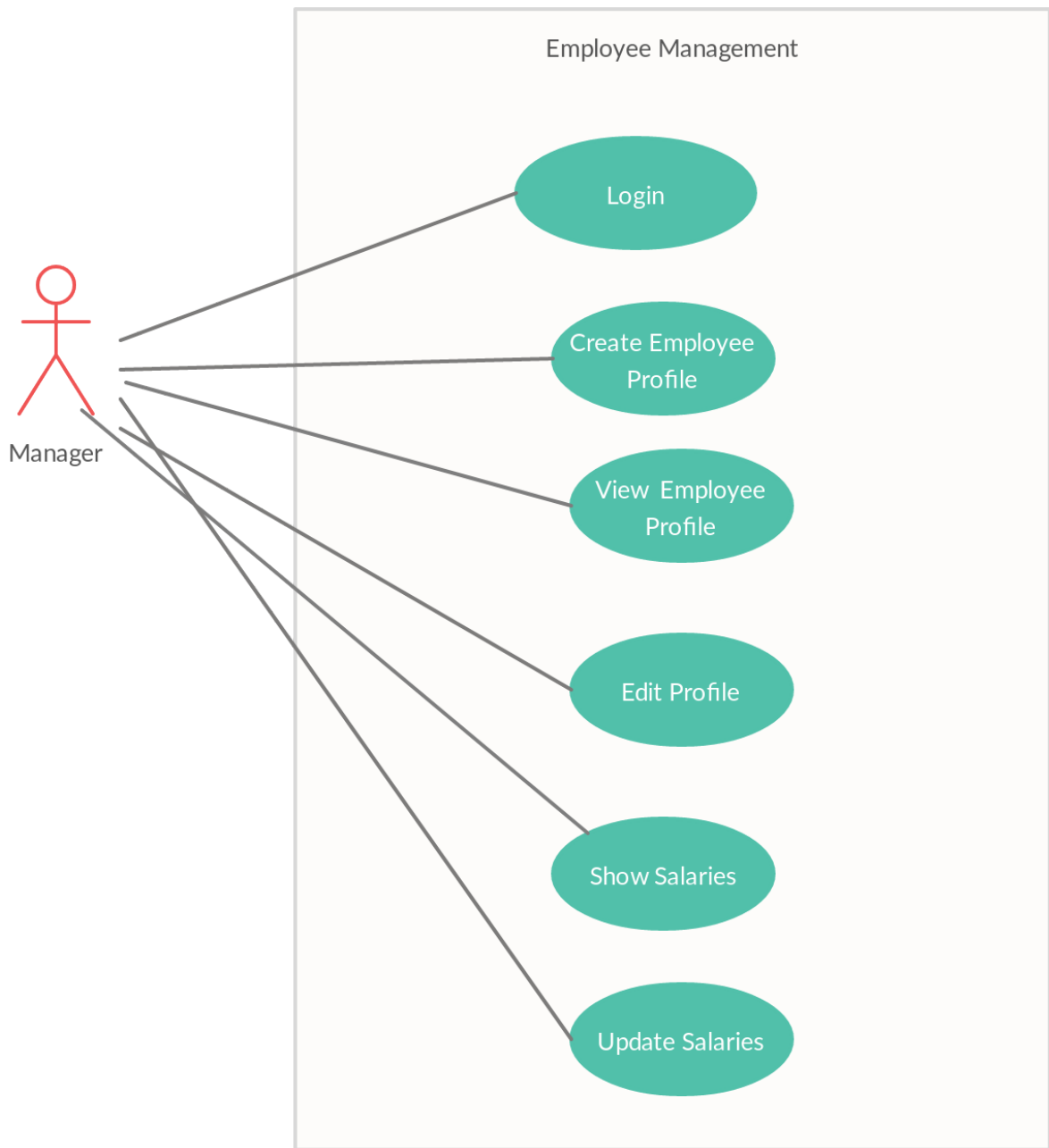
Graphical Report:

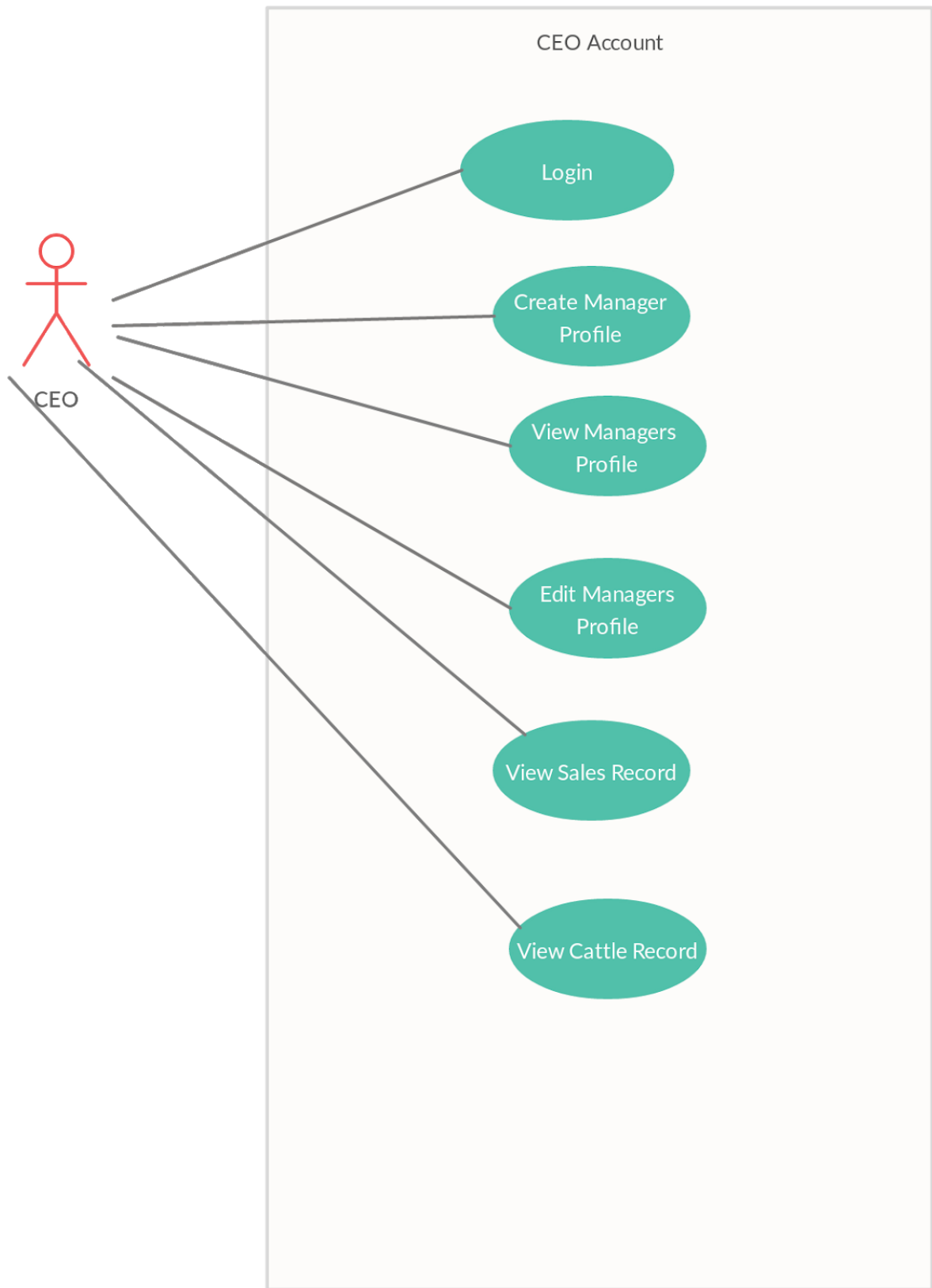
- The user is asked for the graph report options.
- The graph report options include the daily, weekly and monthly reports.
- The graphical report has the amount of milk produced by all the cows for the respective time period against the sum of expenses of the cows.

Use Case Diagrams:

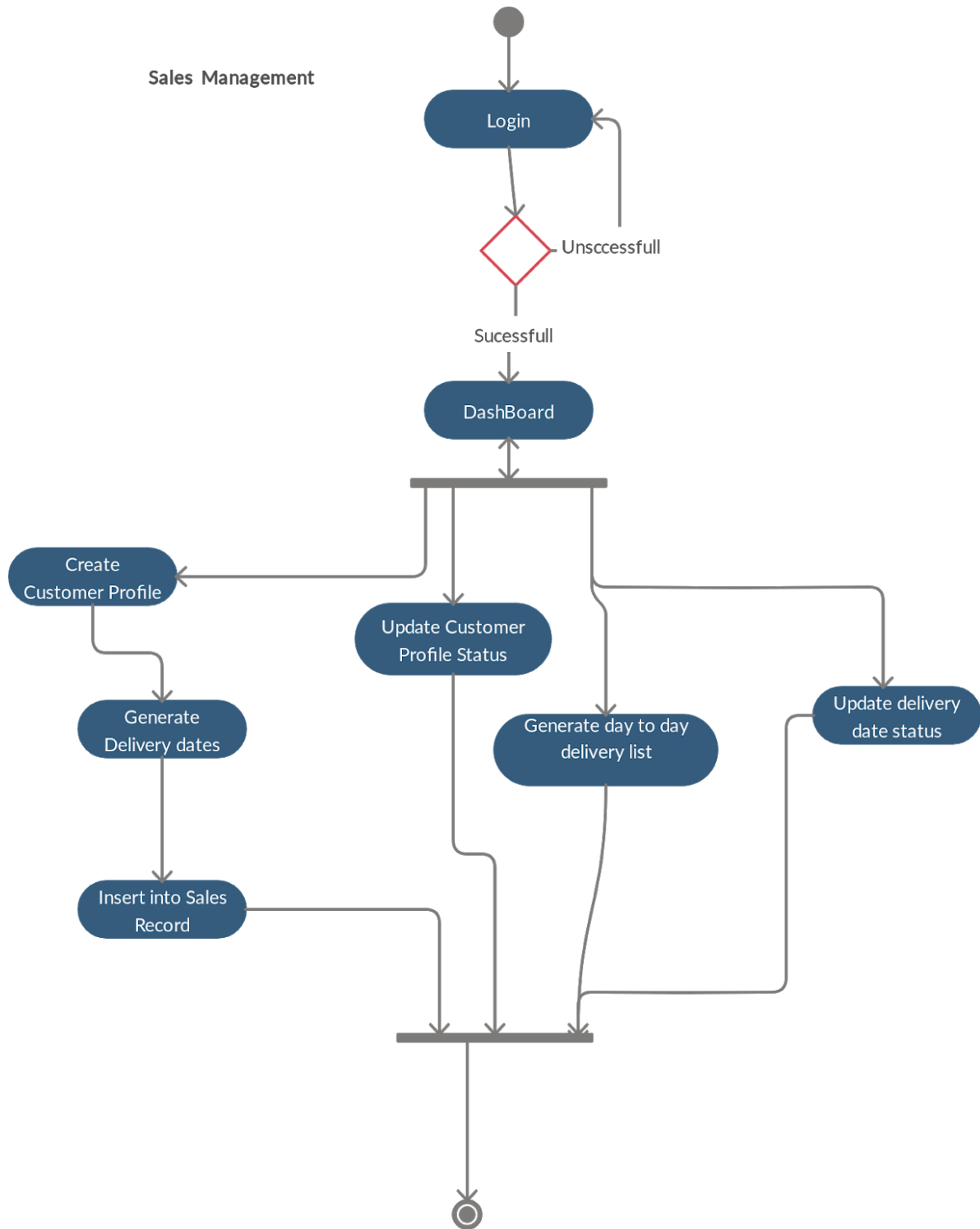




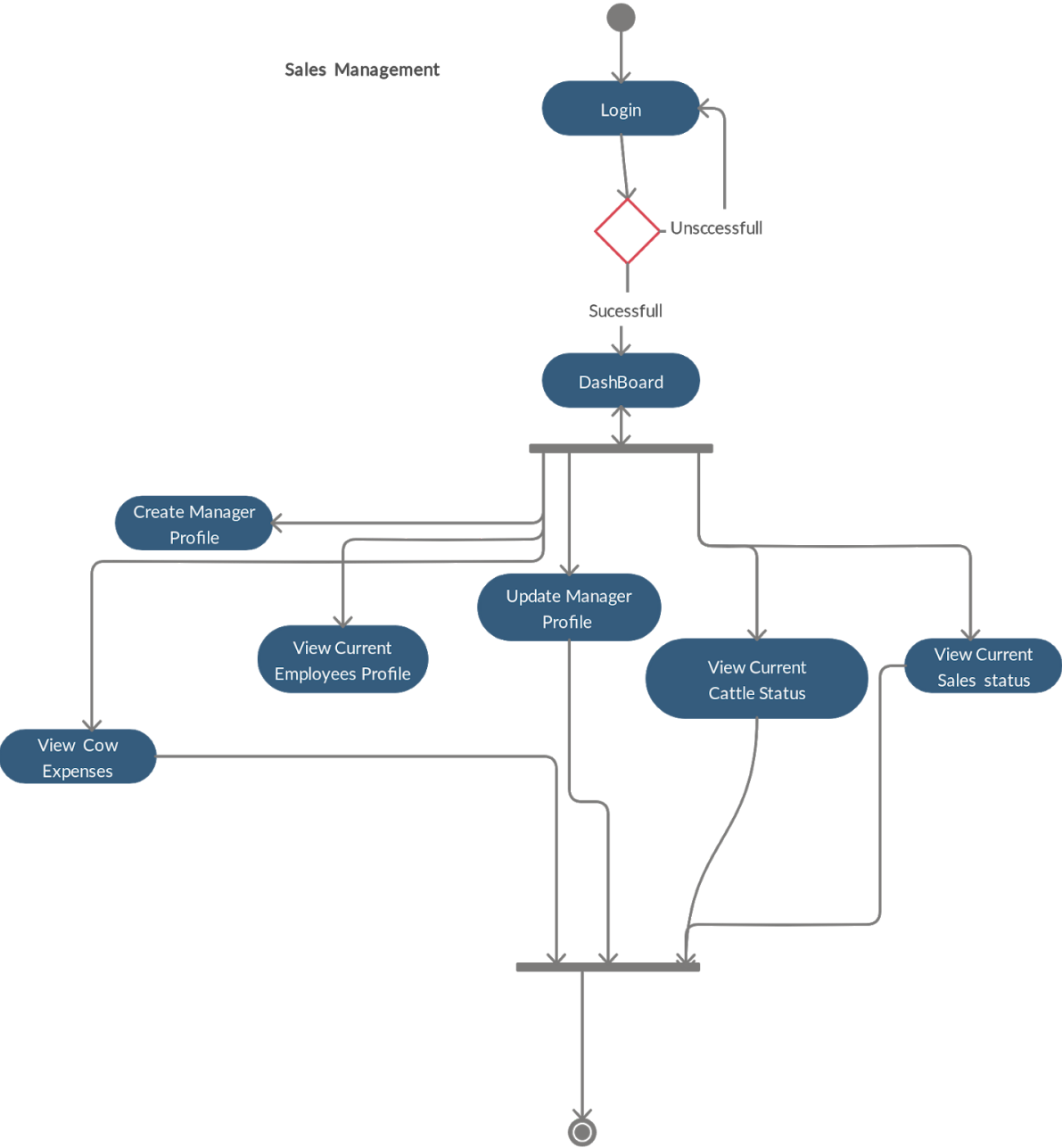




Activity Diagrams:

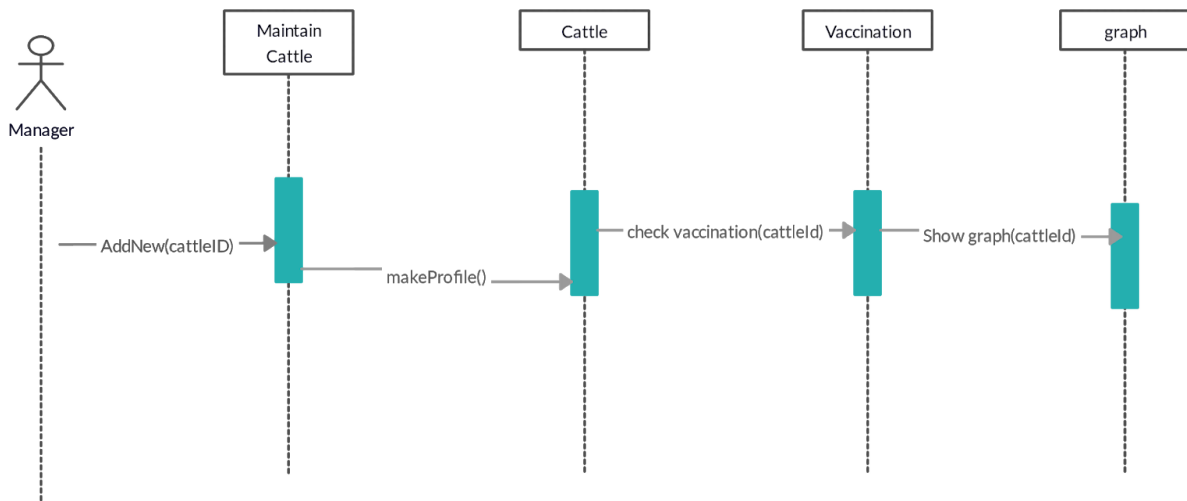


Sales Management

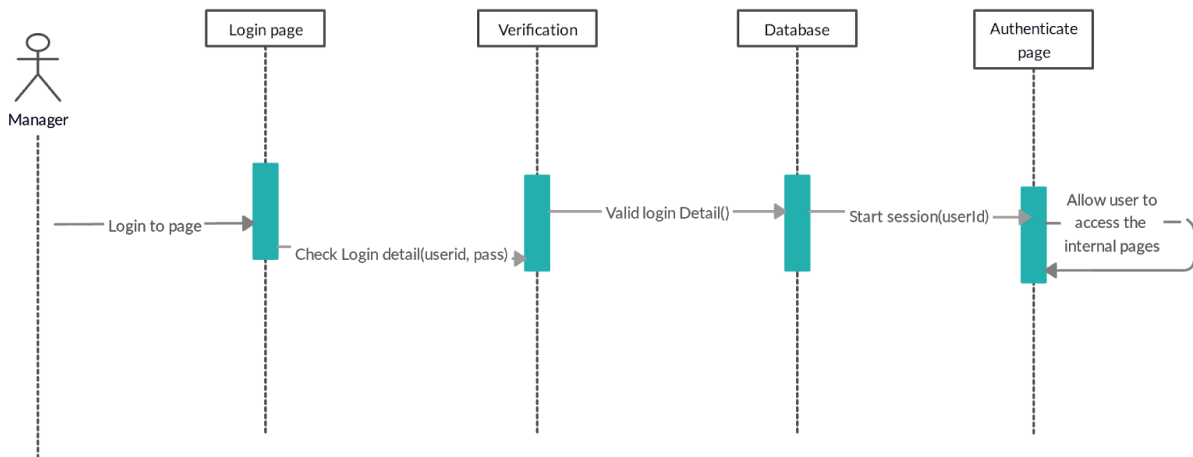


Sequence Diagrams:

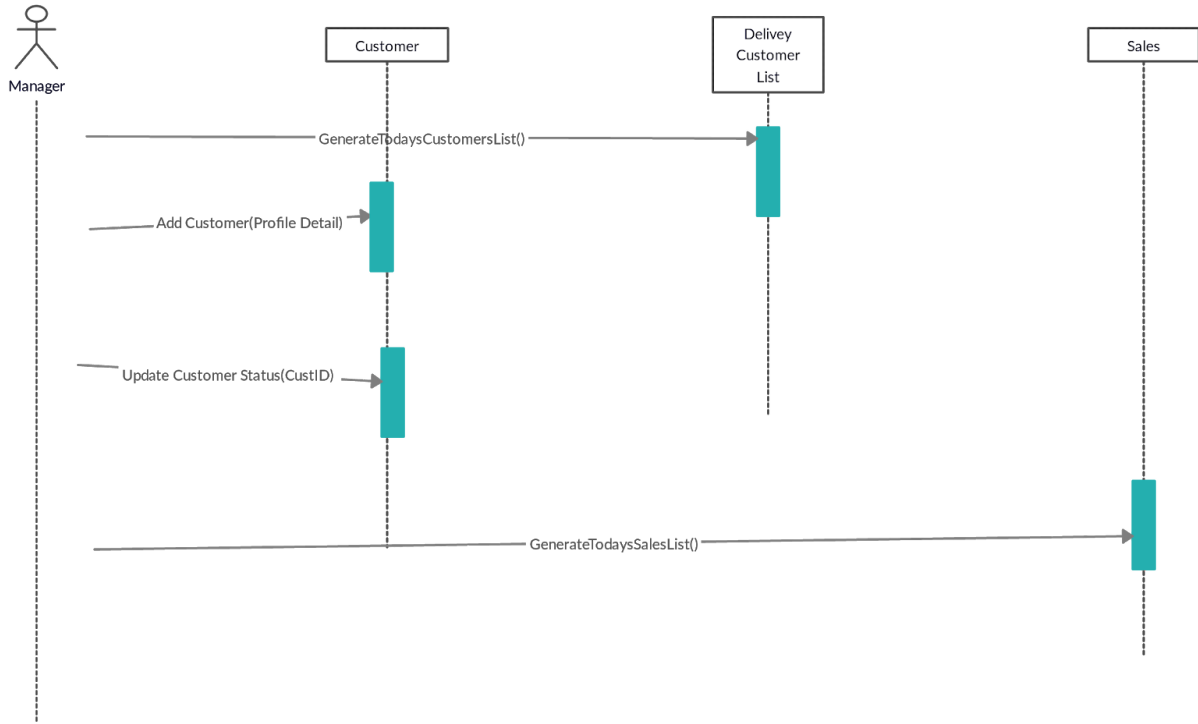
Cattle Account:



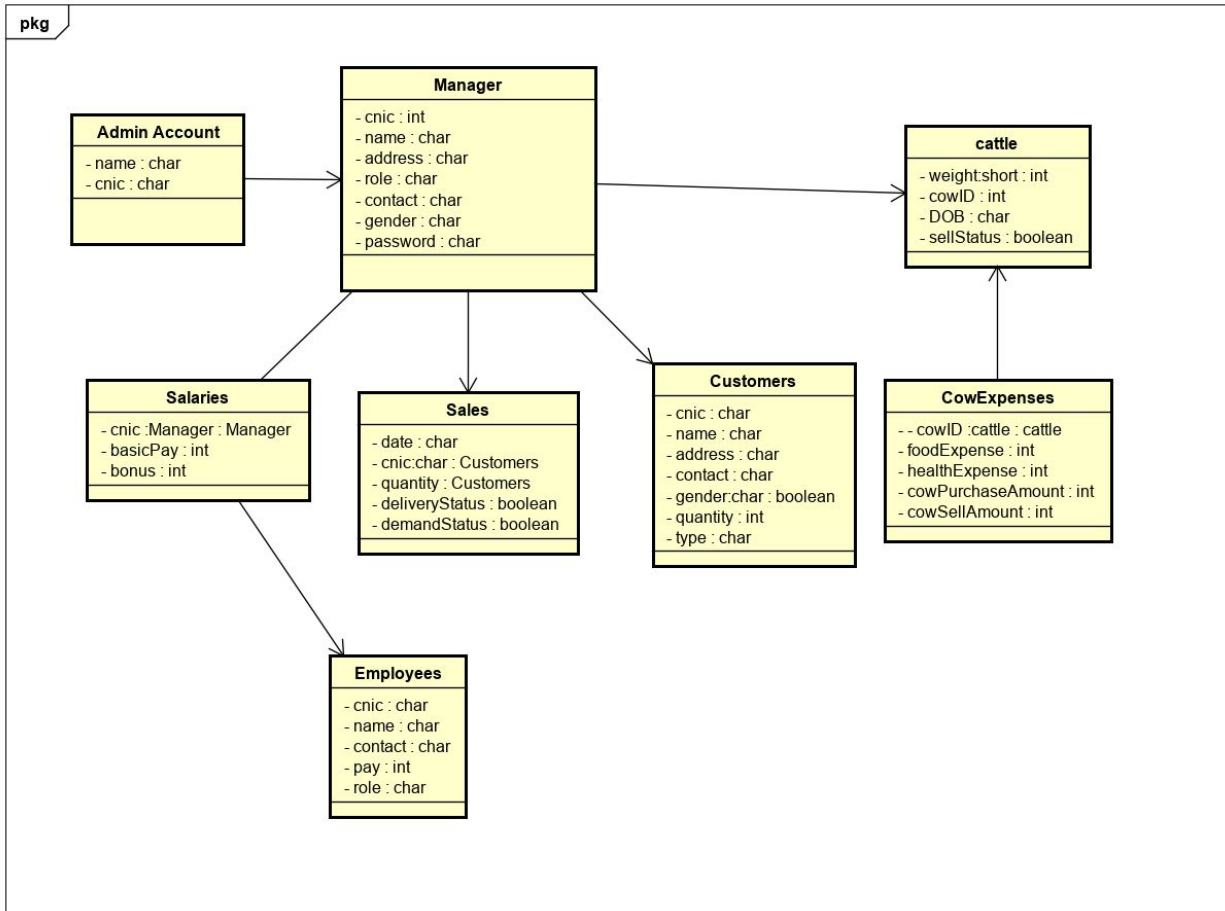
Manager's Login:



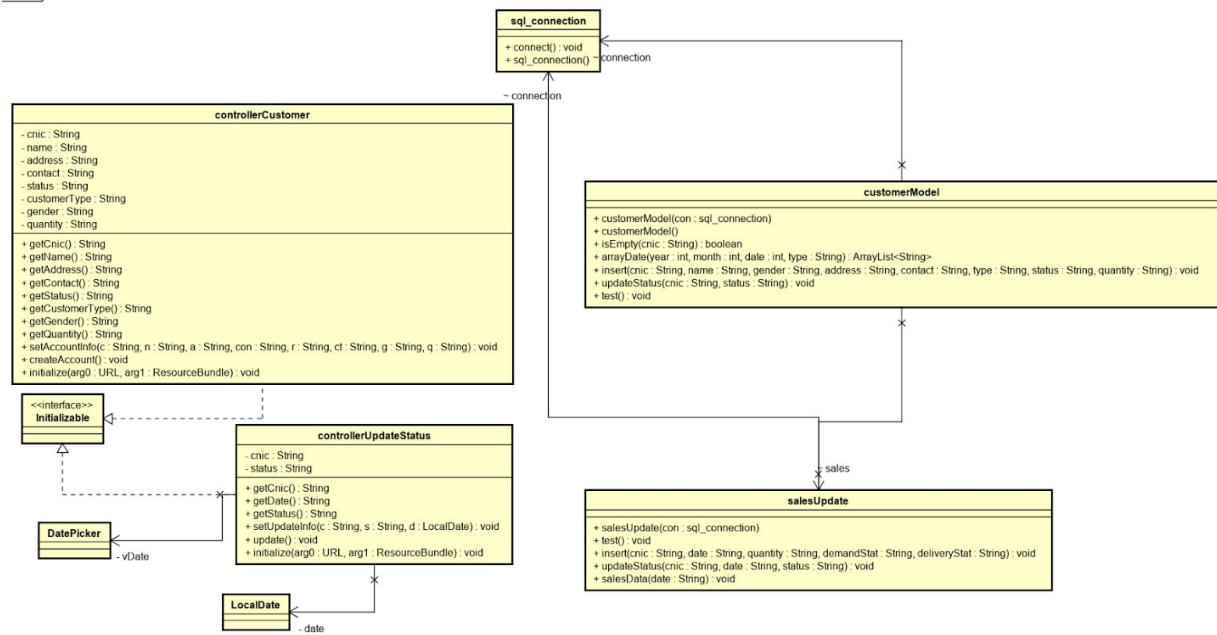
Sales Management:

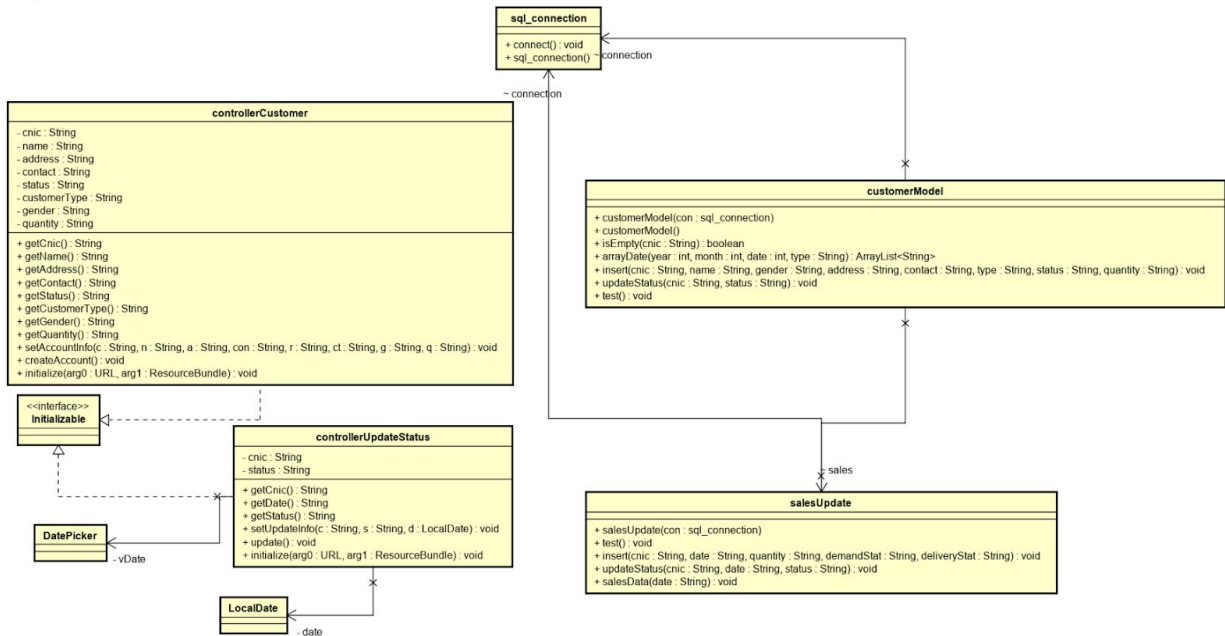


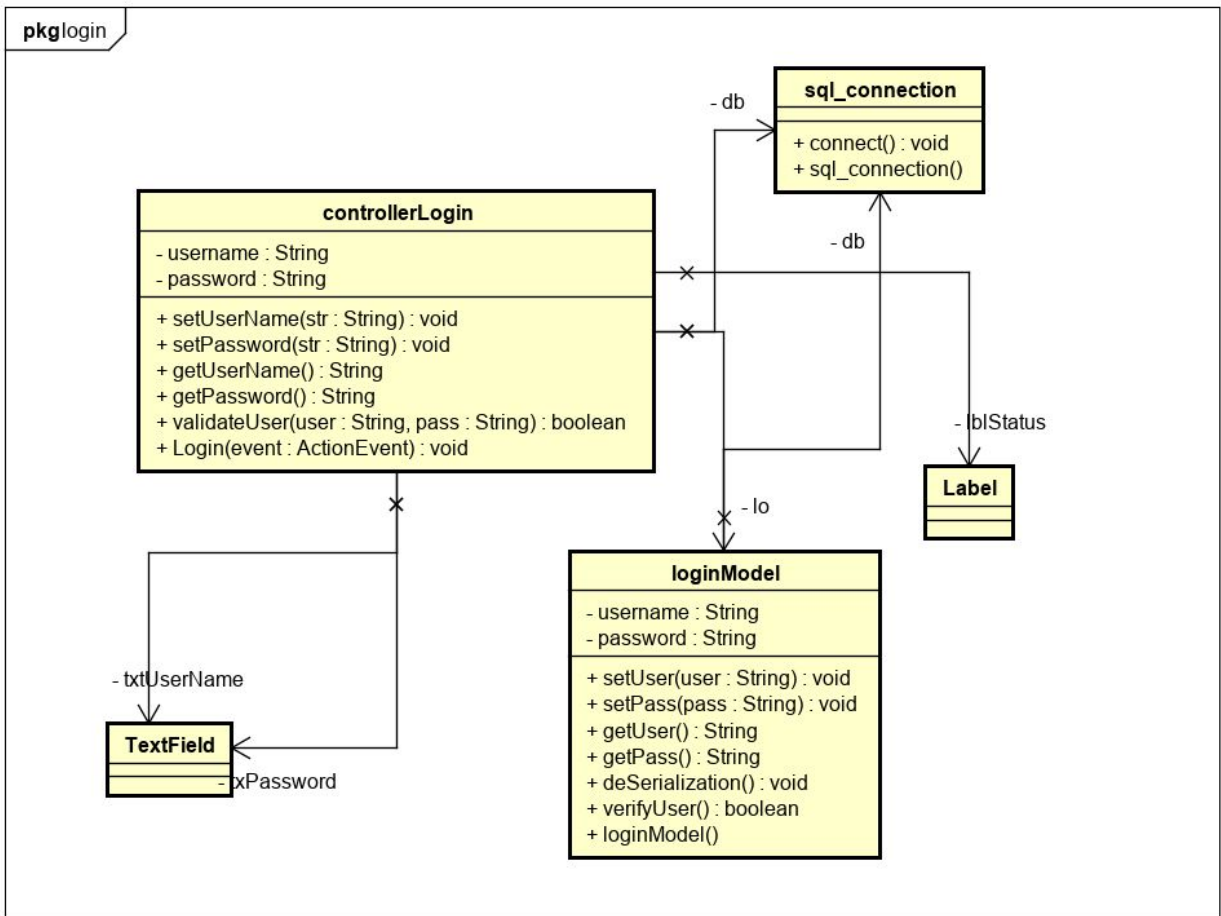
Domain Model:



Class Diagrams:







v	gear	dairyfarm manager
🔑		CNIC : varchar(15)
📄		Name : varchar(25)
📄		Gender : varchar(7)
📄		Role : varchar(20)
📄		PhoneNo : varchar(15)
📄		Address : text
📄		Password : varchar(20)

v	gear	dairyfarm customers
🔑		cnic : varchar(13)
📄		name : varchar(255)
📄		gender : varchar(255)
📄		address : varchar(255)
📄		contactNo : varchar(255)
#		customerType : int(11)
📄		status : varchar(255)
📄		quantity : varchar(255)

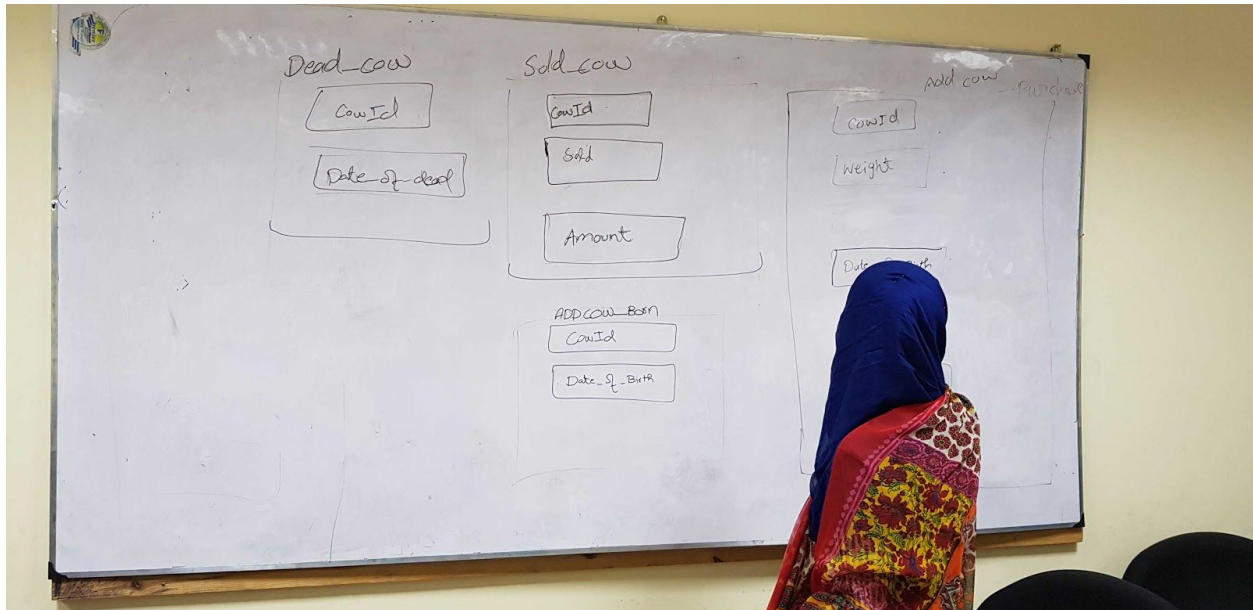
v	gear	dairyfarm sales
🔑		cnic : varchar(13)
🔑		date : date
📄		quantity : varchar(255)
📄		demandStatus : varchar(255)
📄		deliveryStatus : varchar(255)

v	gear	dairyfarm milk
#		price : int(11)

3rd Iteration Meetings:

Agenda Discussed: Sales management and customer data storage according to their cities.

Agreed Points: The payment of milk by customers in the milk sales module module was approved by all members.



Dead_cow

CowId

Date_of_death

Sold_cow

CowId

Sold

Amount

ADD_COW_Born

CowId

Date_of_Birth

