

Information Technology Project (IT2080)

Group: ITP24R_B2_08

ACTIVITY 3



Tea Estate Management System for Bio Tea Factory

Team Members

DE SILVA R K D H	IT22001252	Employee Management System
PIYARATNE U A D T	IT22088550	Inventory Management
HERATH D M S T	IT22639776	Transport Management
VIVIPEM L B R V	IT22639844	Supply Management
JANUKSHAN S	IT22635266	Field and Harvest Management
RANDENIYA A.A.S.L.B.R.P.W.R.C	IT22236500	Sales and Order Management
MIHISARANI A K S	IT22175366	Product management
ASATH MM	IT22633422	Repair & Maintenance management

1. Major components

Employee Management	<ul style="list-style-type: none">• Interacts with the Employee management system to add new employees, update employees, and delete employees.• Interacts with the Salary management system to assign salaries to employees or edit salaries of the employees.• Interacts with the Harvest and Field Management to calculate the salaries of the tea-harvesting employees.• Interacts with the Attendance and leave management to Approve, reject or review employee leaves.• Interacts with Transport management to manage truck drivers and other employees.• Interacts with Maintenance and Repairs Management to manage technicians and other employees.
Harvest and Field Management	<ul style="list-style-type: none">• Interacts with the Inventory Management System to update inventory levels based on daily harvest records.• Interacts with the Employee Management System to get Employee details and assign them.• Interacts with Field Managers to manage tea fields by adding new fields, assigning laborers, and overseeing field activities.• Interacts with Harvest Managers to record the quantity and quality of tea leaves harvested daily, ensuring accurate input of data.
Inventory Management	<ul style="list-style-type: none">• Interact with supplier manager to get refillings

	<ul style="list-style-type: none"> • Interact with sales manager and product manager to manage orders
Supply Management	<ul style="list-style-type: none"> • Interacts with the Supplier to place orders and receive supplies. • Interacts with the Inventory Management System to monitor supply levels and manage the distribution of received supplies.
Transport Management	<ul style="list-style-type: none"> • Interact with Employee management to get the drivers to assign vehicles • Interact with maintain management to assign vehicles for Repairs • Interact with inventory to request fuels for vehicles • Interact with sales management to get Order deliveries
Sales and Order Management	<ul style="list-style-type: none"> • Interact with transport manager to distribute deliveries • Interact with product manager to do selling • Intract with Inventory to order management • Intract with customer to send generated invoice.
Product Management	<ul style="list-style-type: none"> • Interact with sales manager to handle buyers • Interact with inventory to get inventory updates • Interact with Transport Manager to get tracking updates
Maintenance and Repairs Management	<ul style="list-style-type: none"> • Interacts with the Employee Management System to get technicians from the Employee database. • Interacts with Transport Management System to get issues related to vehicles.

2. Data Model

The system will store various types of data, each categorized according to the specific entity it represents. The key data types include:

- Employee Data - This includes information about employees such as employee ID, name, contact information, designation, department, and detailed salary components (e.g., basic salary, bonuses, overtime rate).
- Vehicle Data - Attributes such as vehicle ID, type, condition, assigned drivers, and maintenance records.
- Inventory Data - Details about inventory items, including item ID, type, quantity, storage location, supplier information, and reorder points.
- Supplier Data - Information on suppliers, including supplier ID, name, contact details, types of supplies provided, and historical supply records.
- Product Data - Includes product ID, name, type, production details, and inventory status.
- Sales and Order Data - Captures details of sales transactions, including order ID, buyer information, product details, pricing, order status, and delivery schedules.

Data within the system will be organized using a structured approach to ensure easy access and manipulation:

- Entities and Relationships - Data will be stored in collections. Relationships between entities, such as employees to departments or products to suppliers, will be defined using keys (foreign keys, object references) to establish links between related data.

The system will define relationships between different data entities to maintain consistency and enable complex queries:

- One-to-Many Relationships - For example, one department can have multiple employees, or one supplier can supply multiple inventory items.
- Many-to-Many Relationships - Managed through intermediary entities, such as tracking which products are associated with which orders.
- Referential Integrity - Foreign keys and object references will ensure that data relationships are consistent and that related data is properly linked.

3. Related non-functional requirements

1. Scalability

- Data Growth -The system must be designed to efficiently manage and store an ever-increasing volume of data. As employee records, including salaries, task assignments, and work hour logs, expand over time, the database infrastructure should be robust enough to accommodate this growth without compromising performance. Additionally, the system should be capable of handling the continuous accumulation of data related to vehicles, inventory, suppliers, products, and sales orders, ensuring seamless operation and quick data retrieval even as the dataset scales significantly.
- User Growth - The system should be architected to support a scalable user base, accommodating an increasing number of HR personnel, managers, employees, and other stakeholders as the organization grows. It should ensure that the user experience remains responsive and efficient, regardless of the number of concurrent users accessing the system. This includes maintaining optimal performance during peak usage times as the number of active users continues to expand.

2. Security

- Access Control - The system shall implement Role-Based Access Control (RBAC) mechanisms to ensure that access to information and functionalities is strictly aligned with the user's role within the organization. Distinct access levels will be defined for different roles, such as Employee Managers, Field and Harvest Managers, Maintenance and Repair Managers, and other managerial positions, as well as general employees. This approach will safeguard sensitive data by restricting access to only those functionalities necessary for each role, thereby enhancing both security and operational efficiency.
- Authentication - The system will incorporate secure authentication protocols to verify user identities before granting system access. This will include standard username and password authentication, This authentication mechanisms will be essential in ensuring that only authorized personnel can access the system, thereby protecting sensitive data and preventing unauthorized access.

3. Performance

- Performance and Scalability Requirements - Define clear response time thresholds for critical system operations, including login, data retrieval, task assignment, and report generation, to ensure prompt and efficient user interactions. Additionally, establish the system's capacity to support a specified maximum number of concurrent users and transactions without performance degradation, optimizing core components such as

database queries, network communication, and application logic to maintain consistent efficiency during peak usage

- Load Balancing - Deploy advanced load balancing mechanisms to evenly distribute incoming traffic across multiple servers and resources. This strategy is essential for maximizing resource utilization, preventing the overloading of individual components, and ensuring continuous system reliability. This may include the use of load balancers, server clustering, or container orchestration platforms.

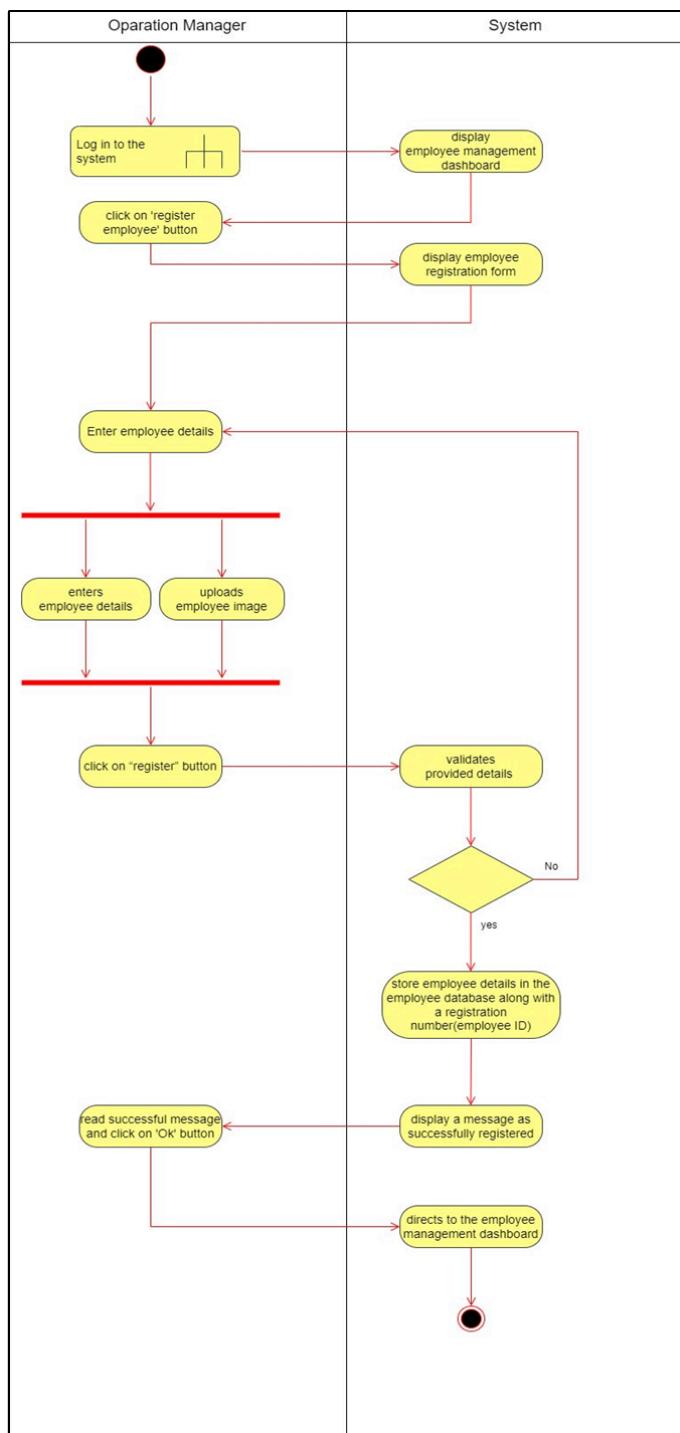
4. Third-party components

- Database Management System - The system utilizes MongoDB, a third-party database, to securely store and manage data, including employee details, vehicle details, inventory details, supplier details, product details, and sales and order information.
- Web Framework - The system is built using Node.js and Express.js frameworks to develop its web-based user interface. Express.js serves as the backbone for the application's server-side logic, providing essential features such as routing, middleware management, and templating systems. Routing handles the flow of requests to appropriate endpoints, middleware facilitates tasks like authentication and error handling, and the templating system allows dynamic content rendering. By using Express.js, the system ensures a robust, scalable, and efficient framework for managing the web application's functionality and user interactions.
- UI Component Libraries – We used Material UI as a UI component library to design a user-friendly and intuitive interface for managing employee details, salary information, work hour tracking, charts, forms and tables. Integration involves utilizing the library's UI components within the frontend application to enhance usability and consistency
- Task Management - Trello was adopted as the project management tool to streamline the organization and tracking of tasks and project milestones. It facilitated the coordination of team activities by allowing tasks to be visually organized on boards, with features such as task assignment, progress tracking, deadline management, and collaborative communication. Trello's intuitive interface and flexibility made it easier to manage workflows, prioritize tasks, and ensure that project objectives were met efficiently and on schedule.

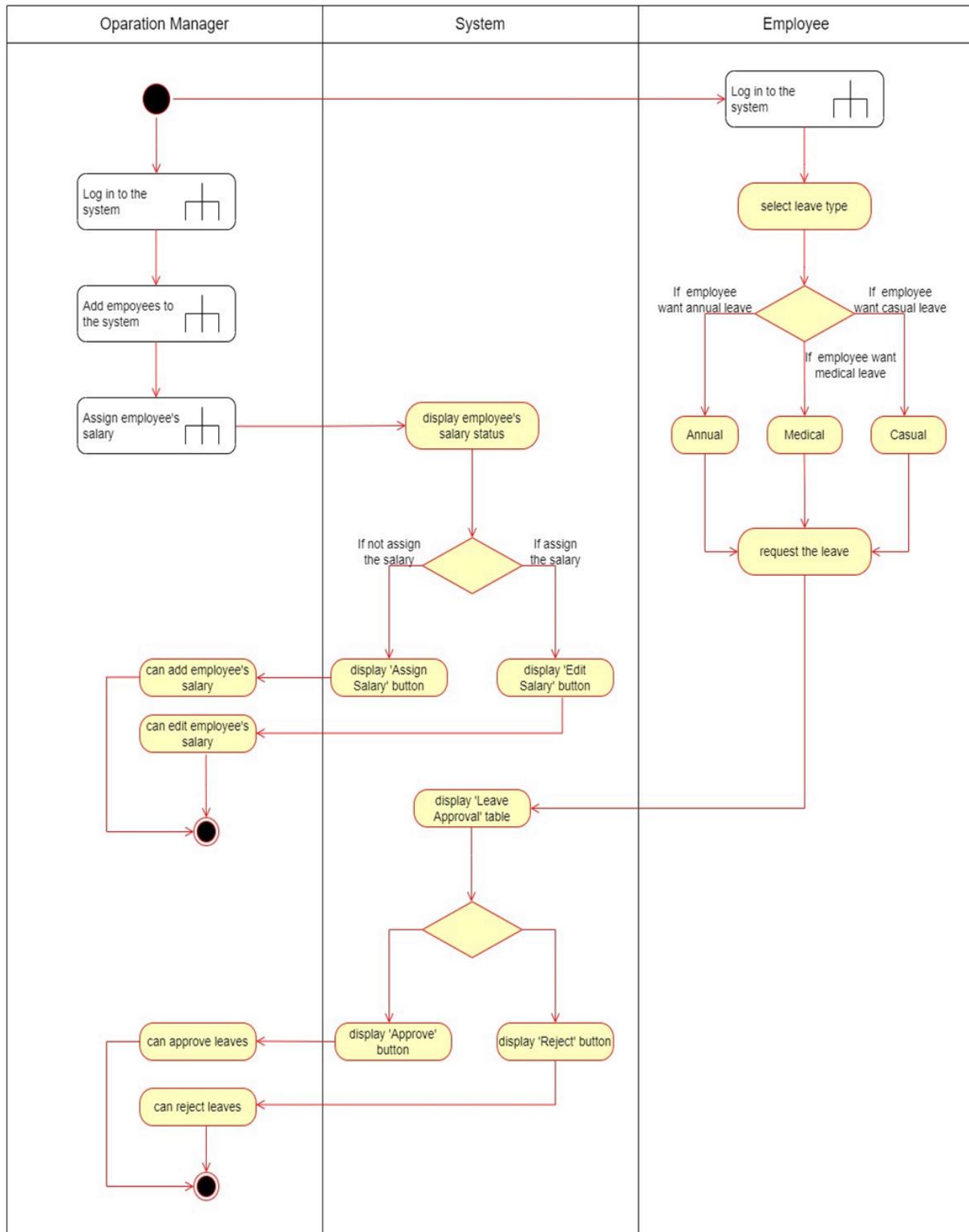
5. UML Diagrams

Employee Management - IT22001252 DE SILVA R K D H

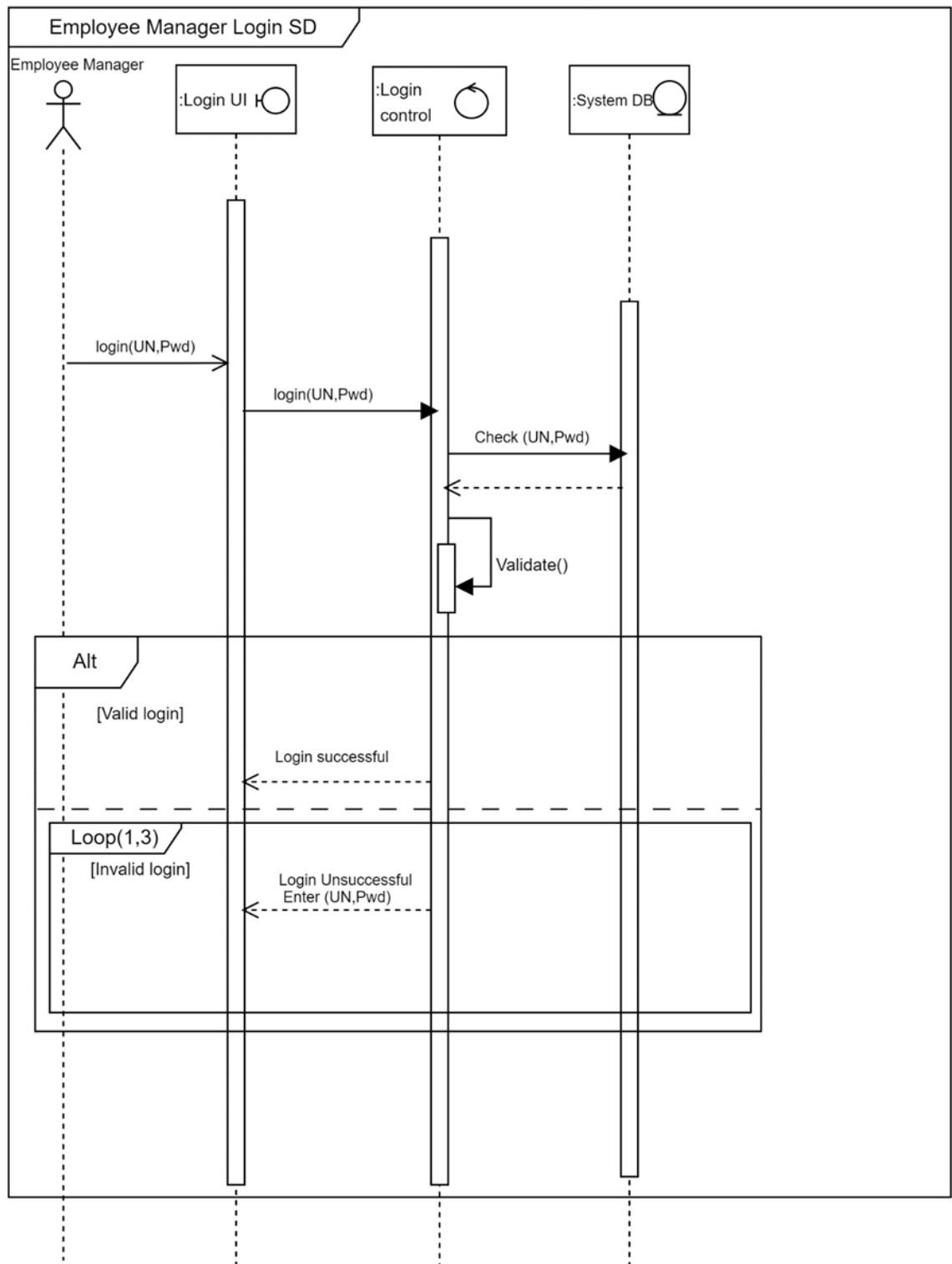
Activity Diagram - Employee Account Management



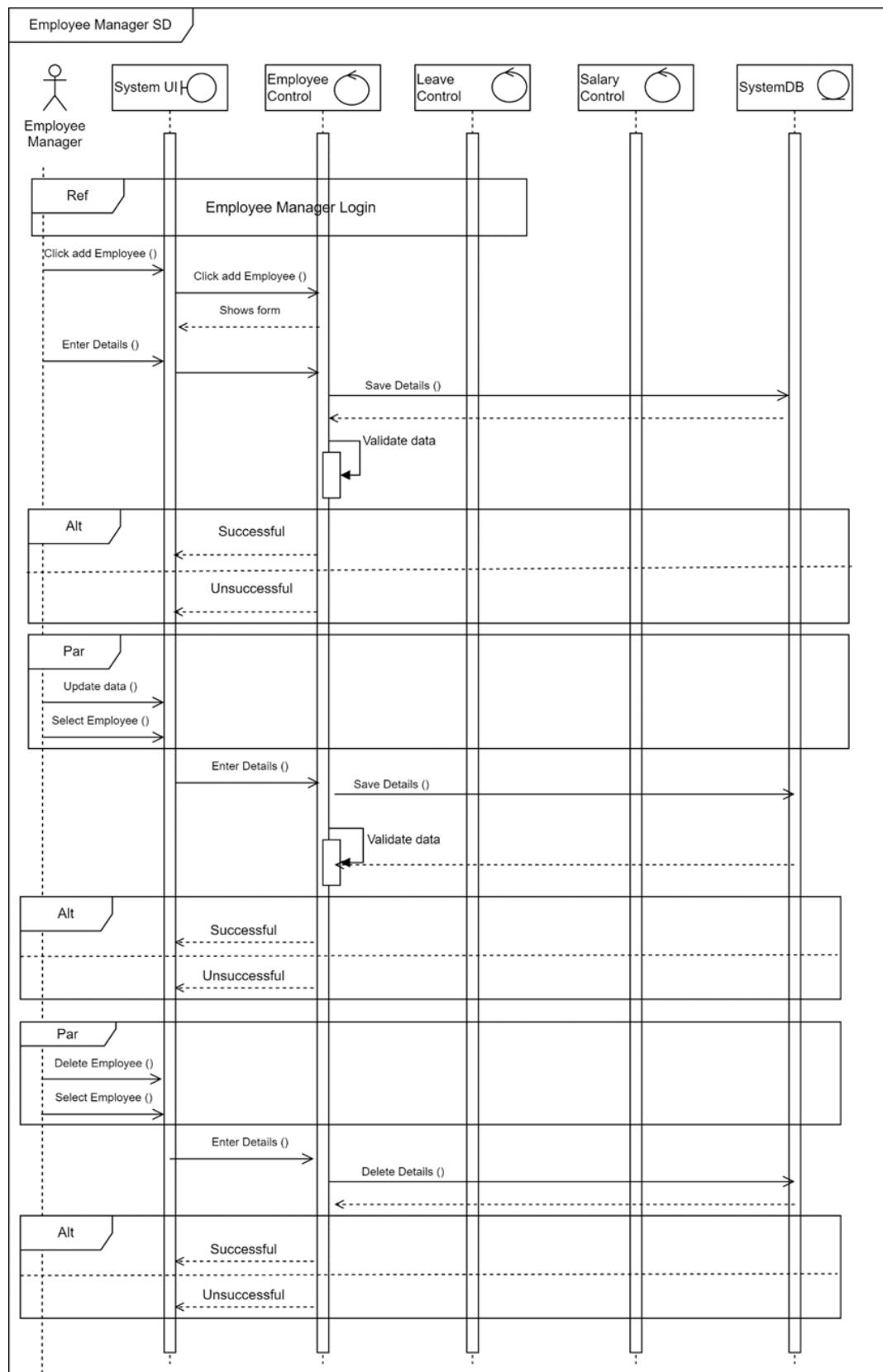
Activity Diagram - Employee Leave and Salary Management



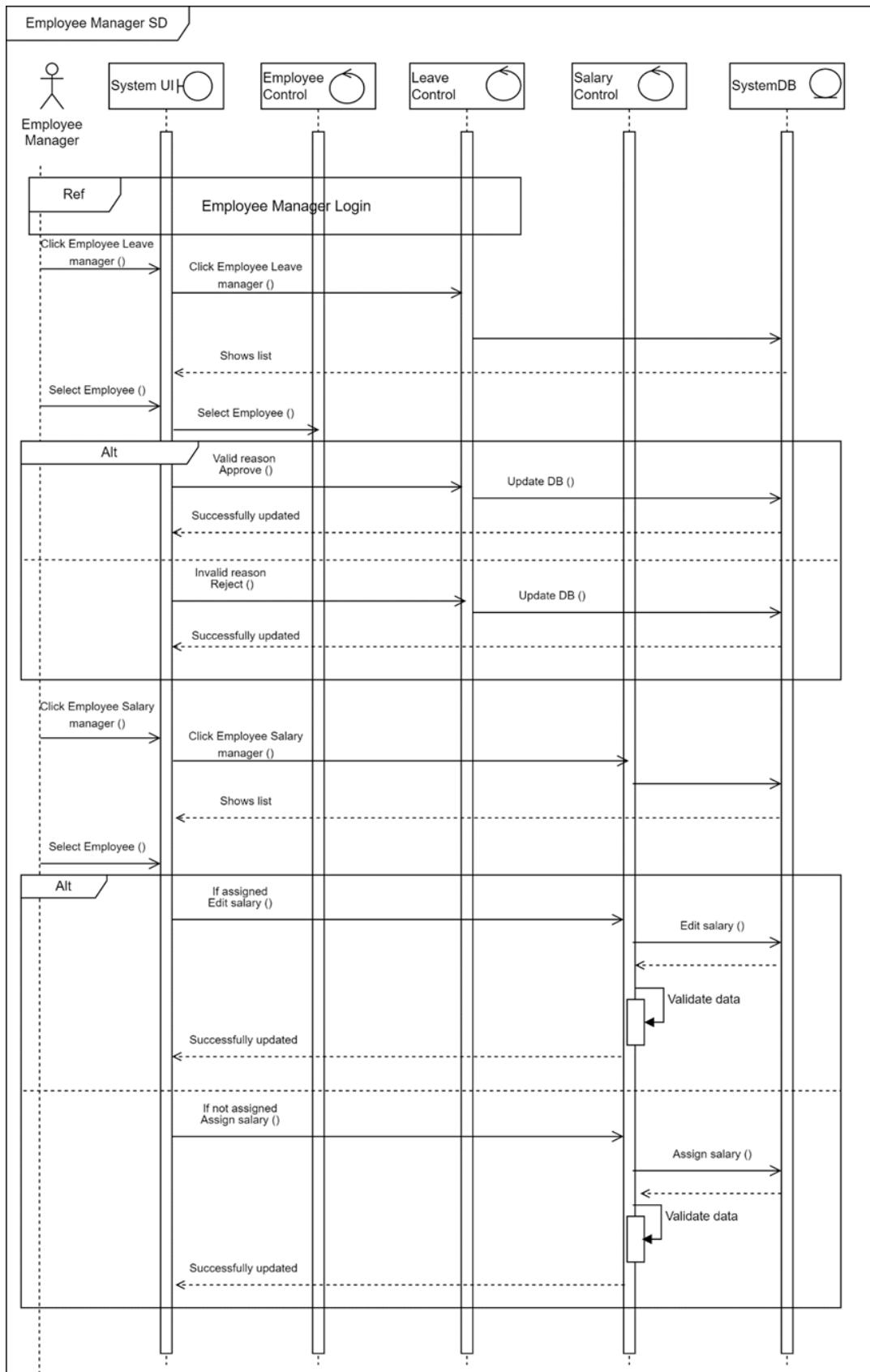
Sequence Diagram - Employee Login



Sequence Diagram - Employee Account Management



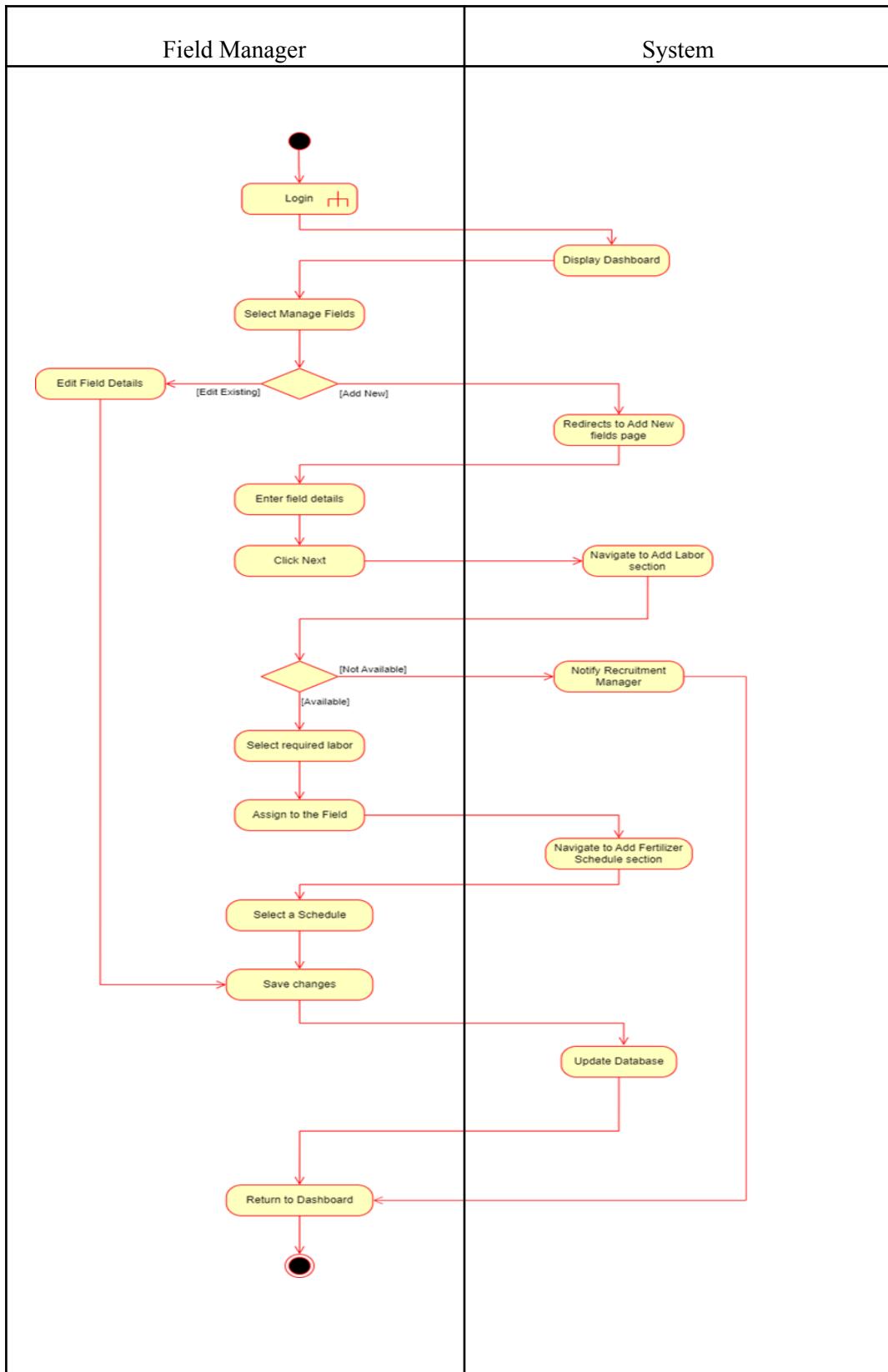
Sequence Diagram - Employee Leave and Salary Management



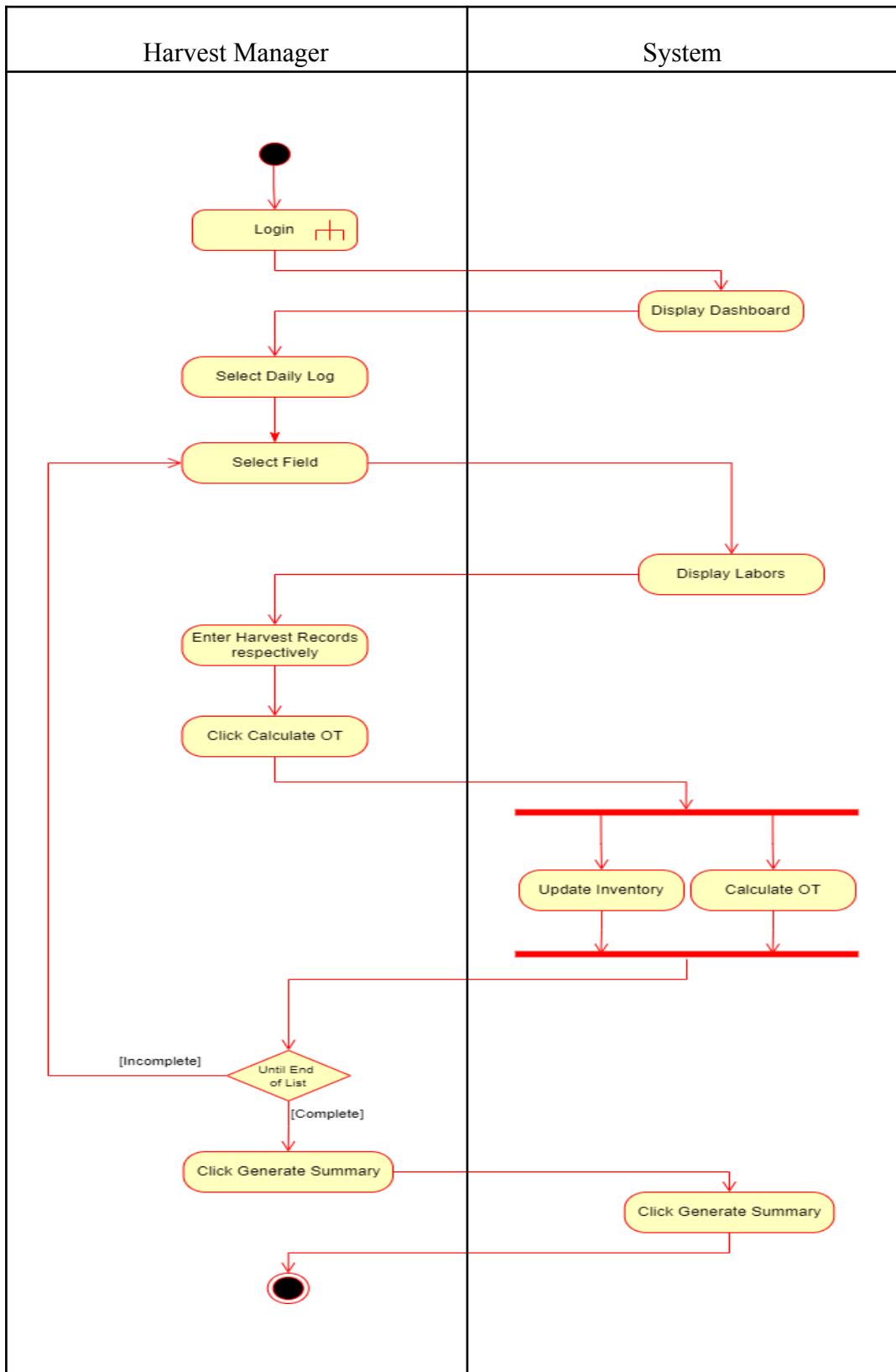
FIELD AND HARVEST MANAGEMENT

IT22635266 - JANUKSHAN S

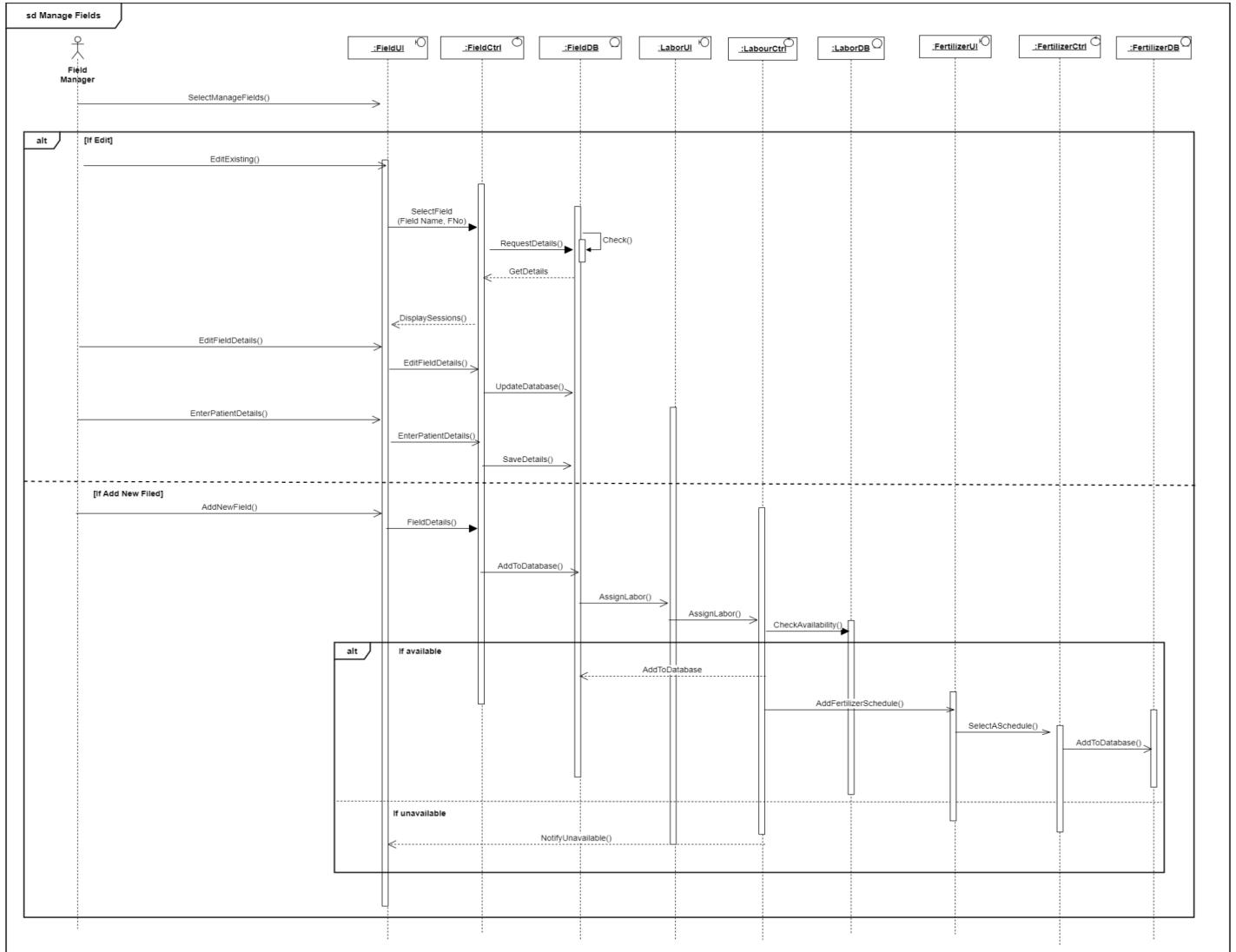
Activity Diagram - Manage Fields



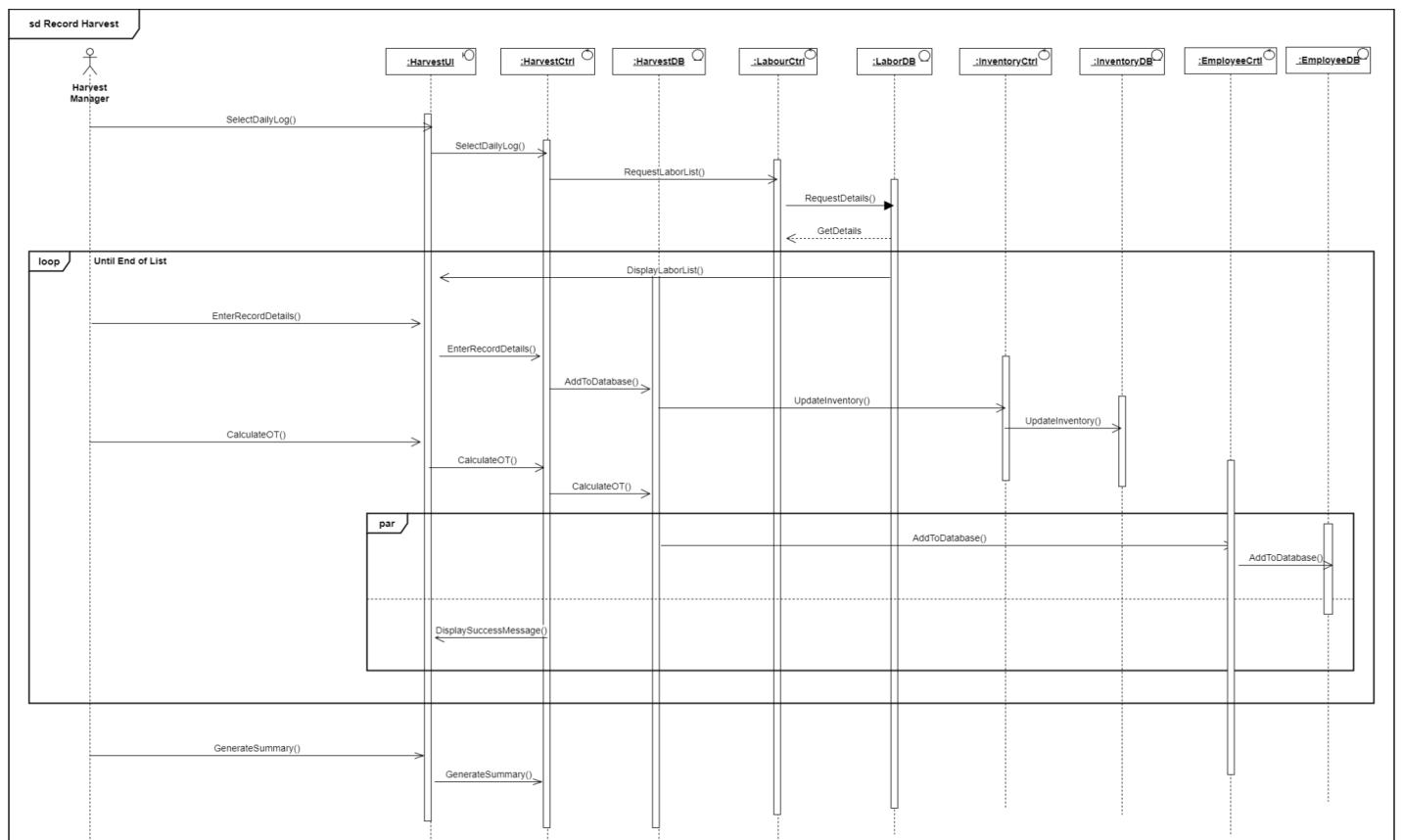
Activity Diagram - Record Daily Harvest



Sequence Diagram - Manage Fields



Sequence Diagram - Record Daily Harvest

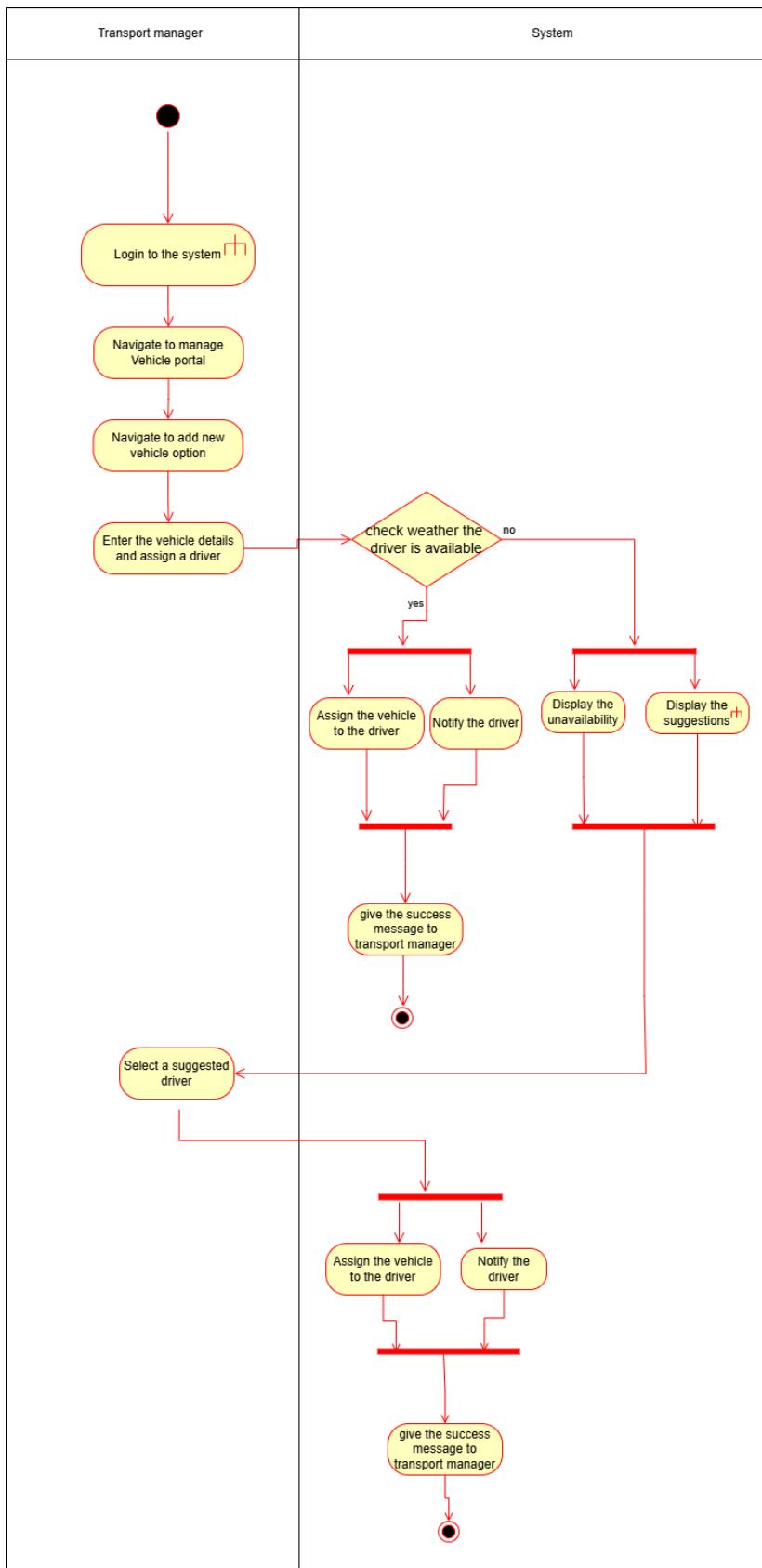


Transport management - IT22639776 - D M S T HERATH

Activity Diagrams

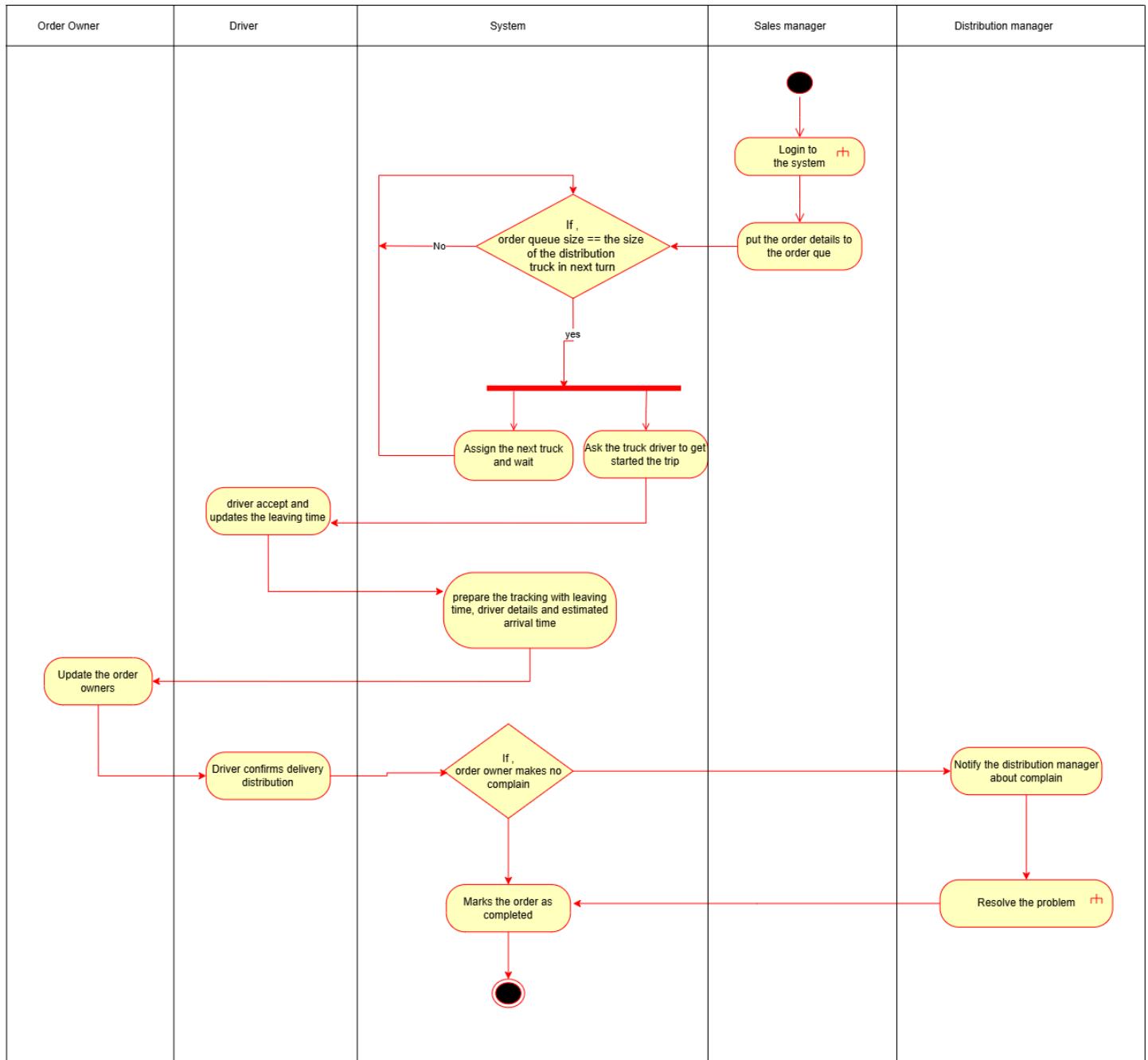
Adding a Vehicle

[Y2S2 activity 3.drawio - draw.io \(diagrams.net\)](#)

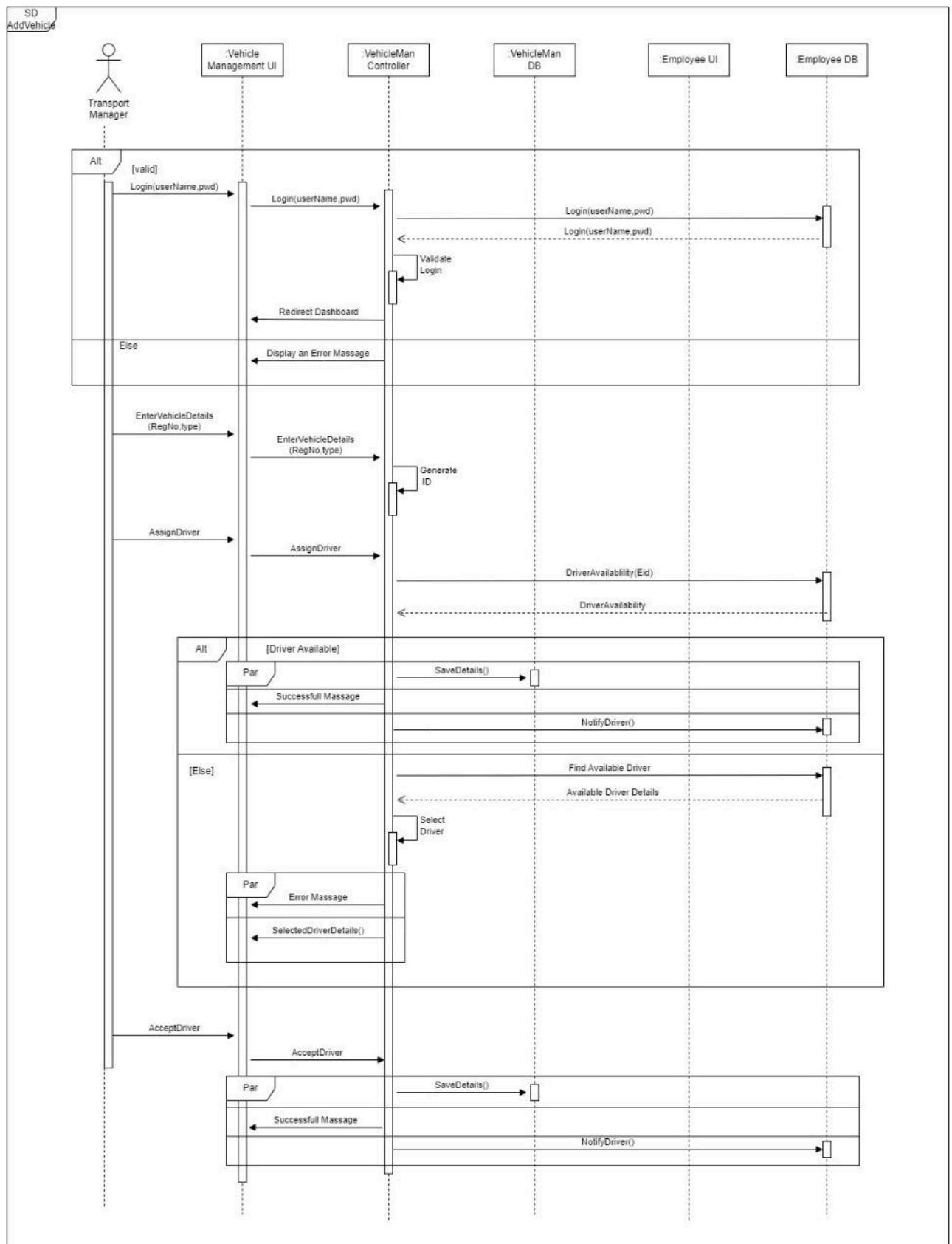


Scheduling a pickup

[AD_TransportM.drawio - draw.io \(diagrams.net\)](#)



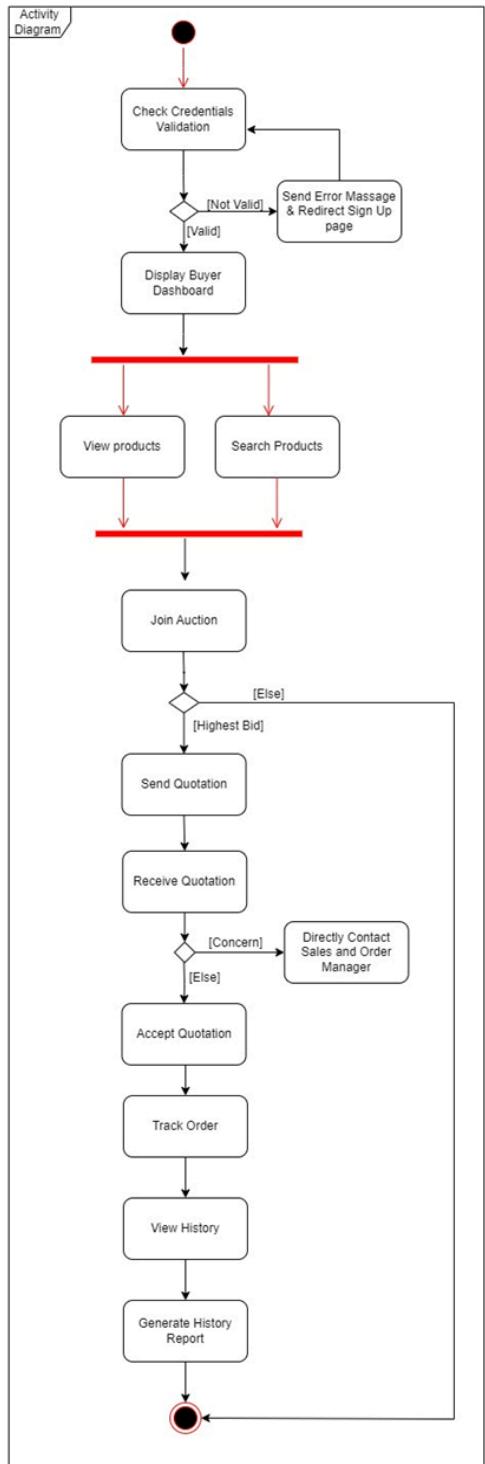
Sequence Diagram



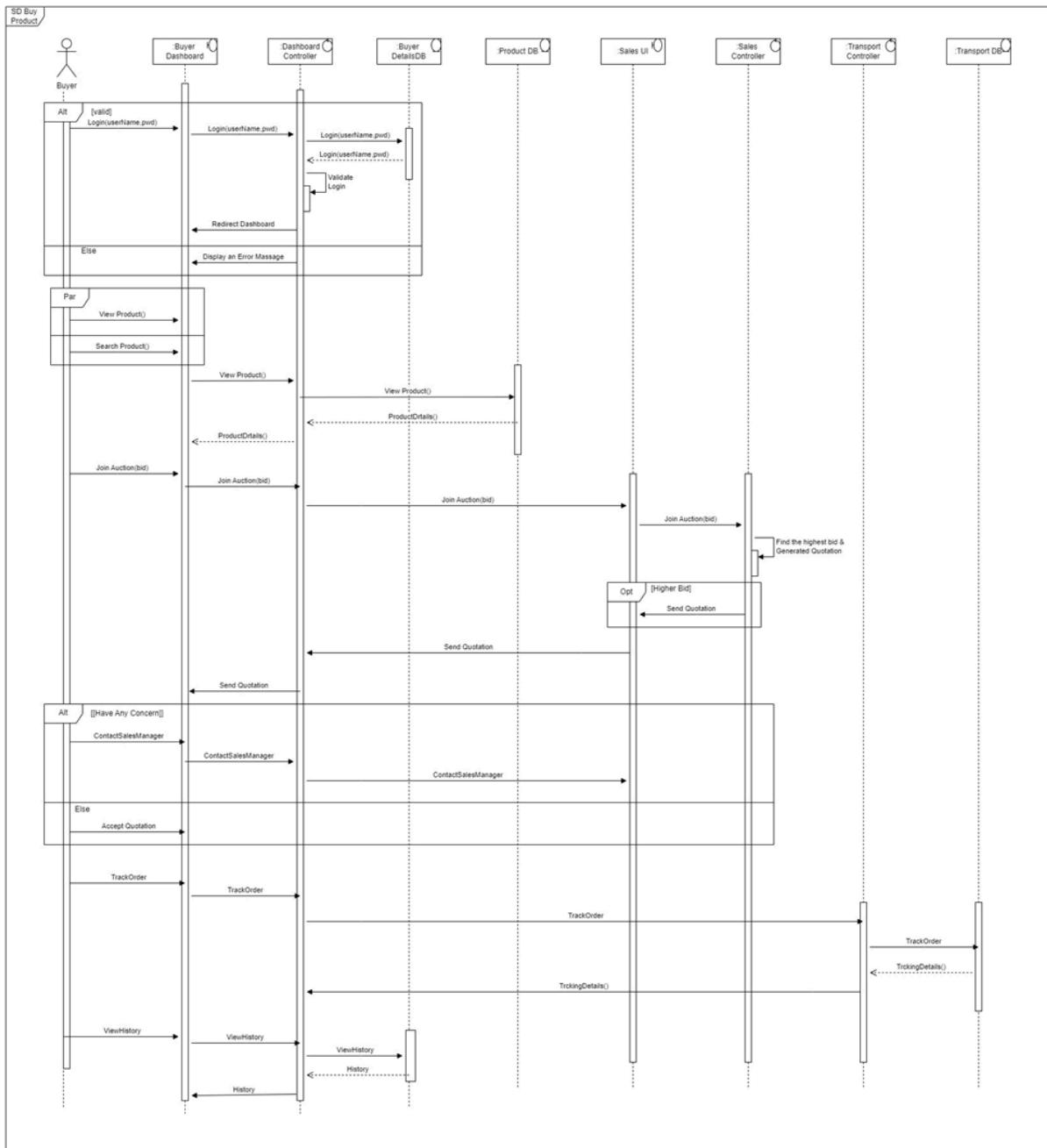
Product Management

1. Auction Participation for Buyer Side

1.1 Activity Diagram

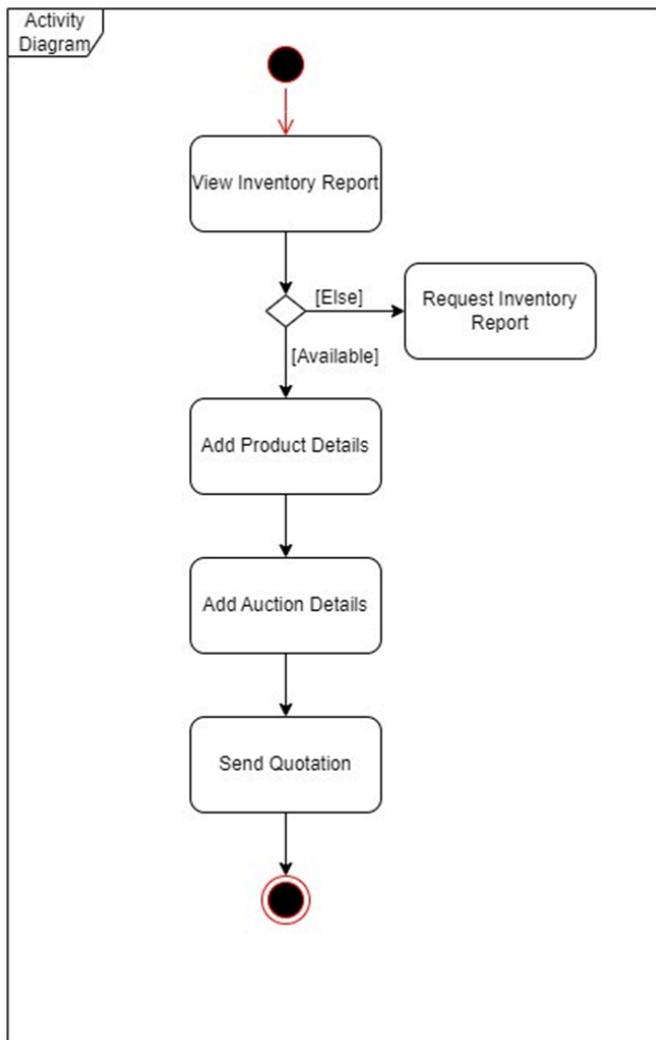


1.2 Sequence Diagram

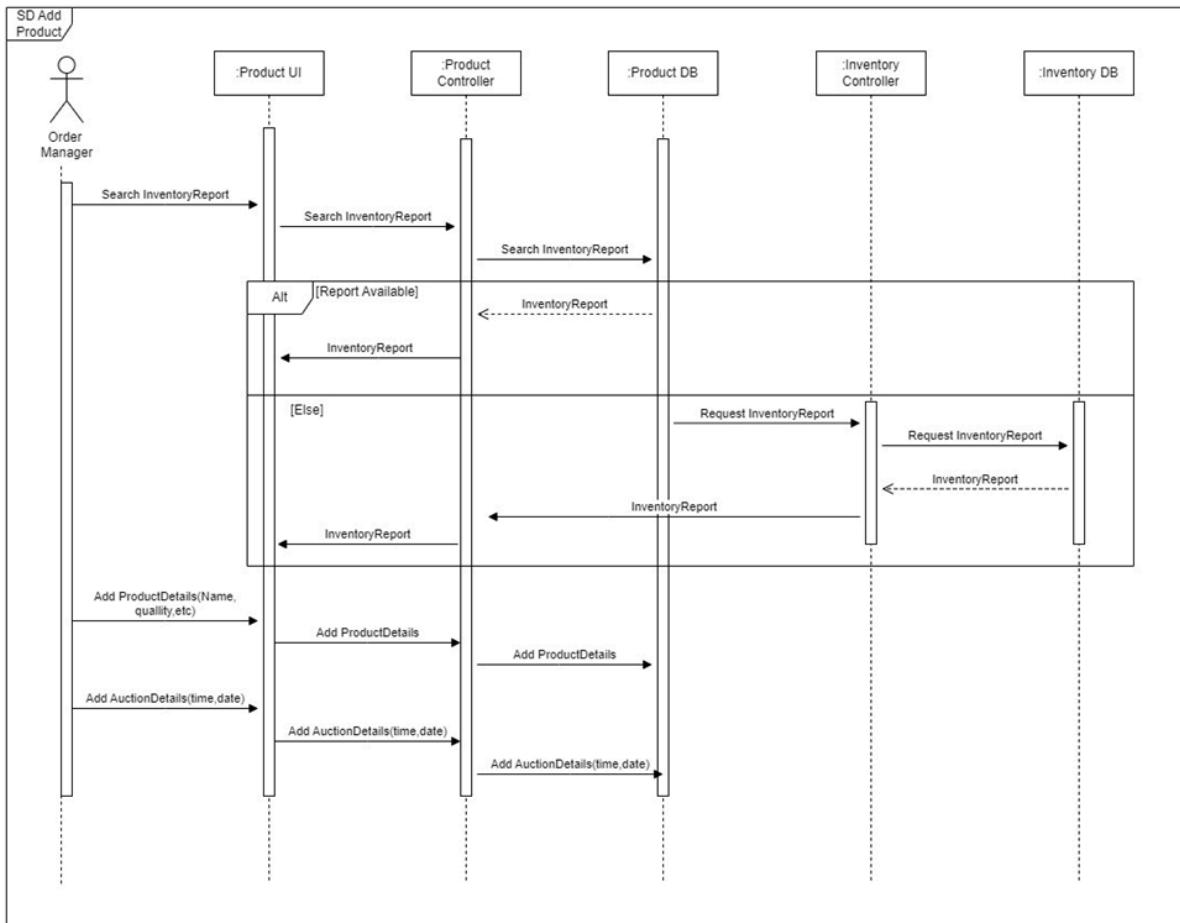


2. Product Listing

2.1 Activity Diagram



2.2 Sequence Diagram

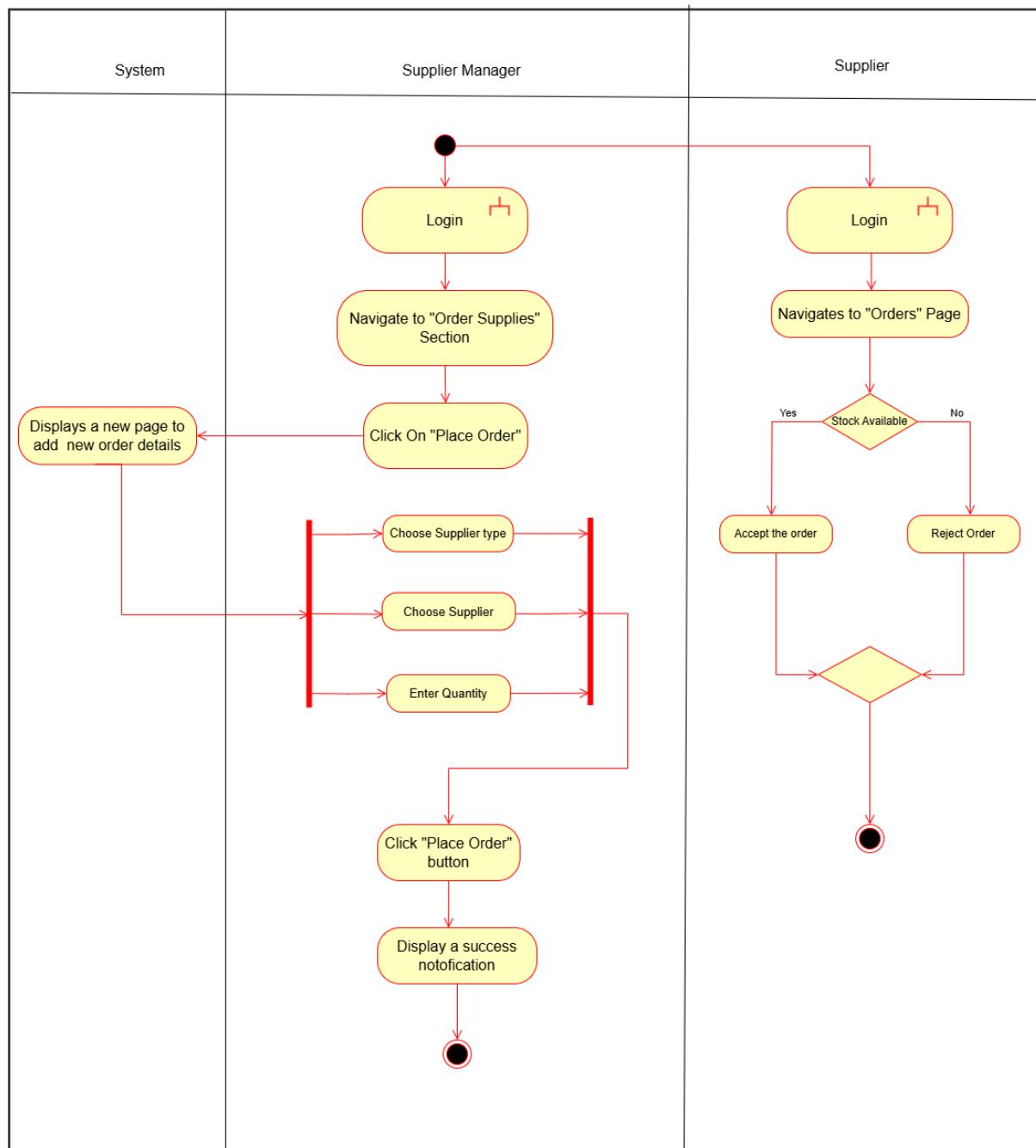


Supply Management - IT22629844 - VIVPEM L B R V

Activity Diagram

Ordering Supplies

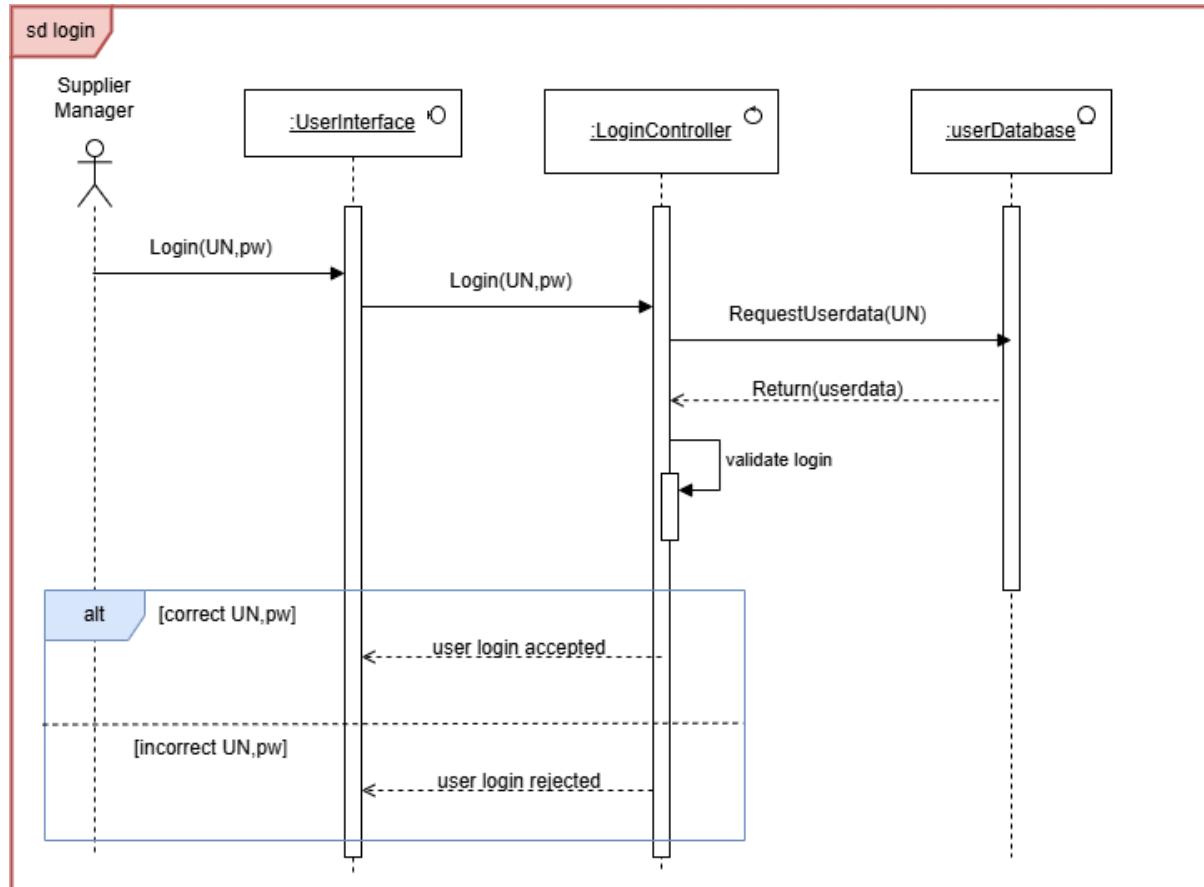
<https://app.diagrams.net/>



Sequence Diagram

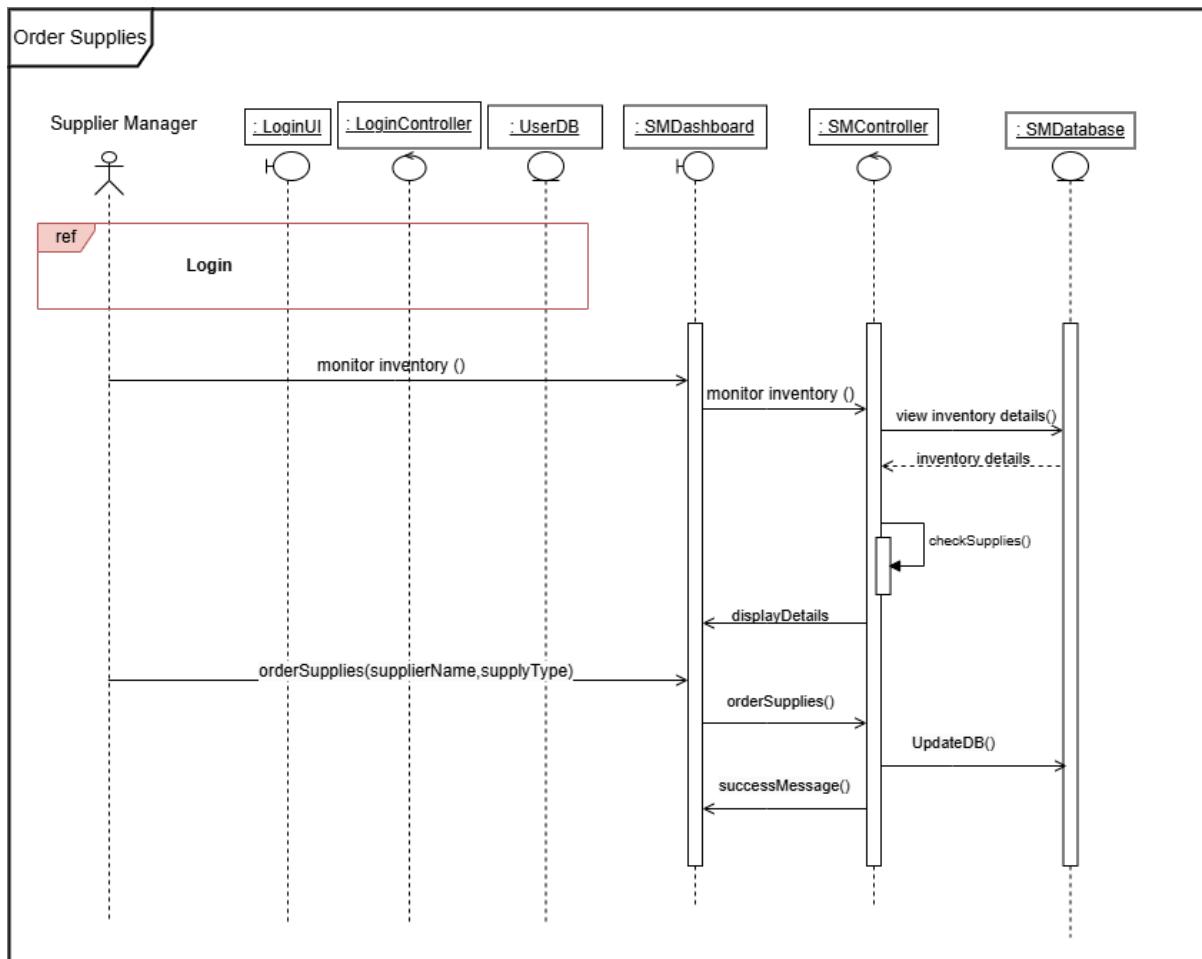
Login

[SDLogin.drawio - draw.io \(diagrams.net\)](#)



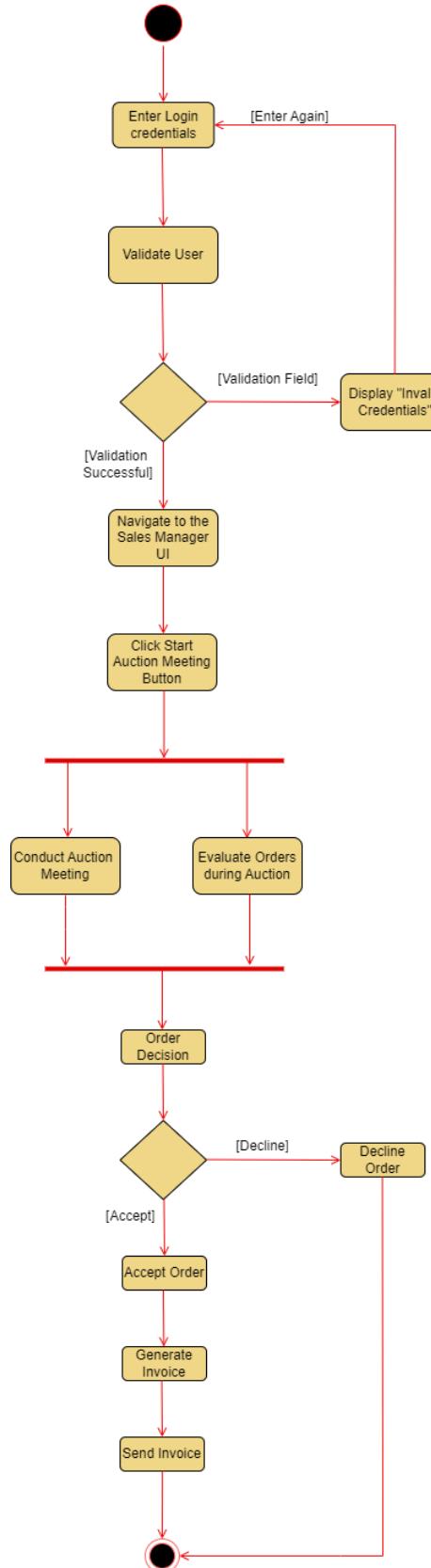
Ordering Supplies

<https://app.diagrams.net/>

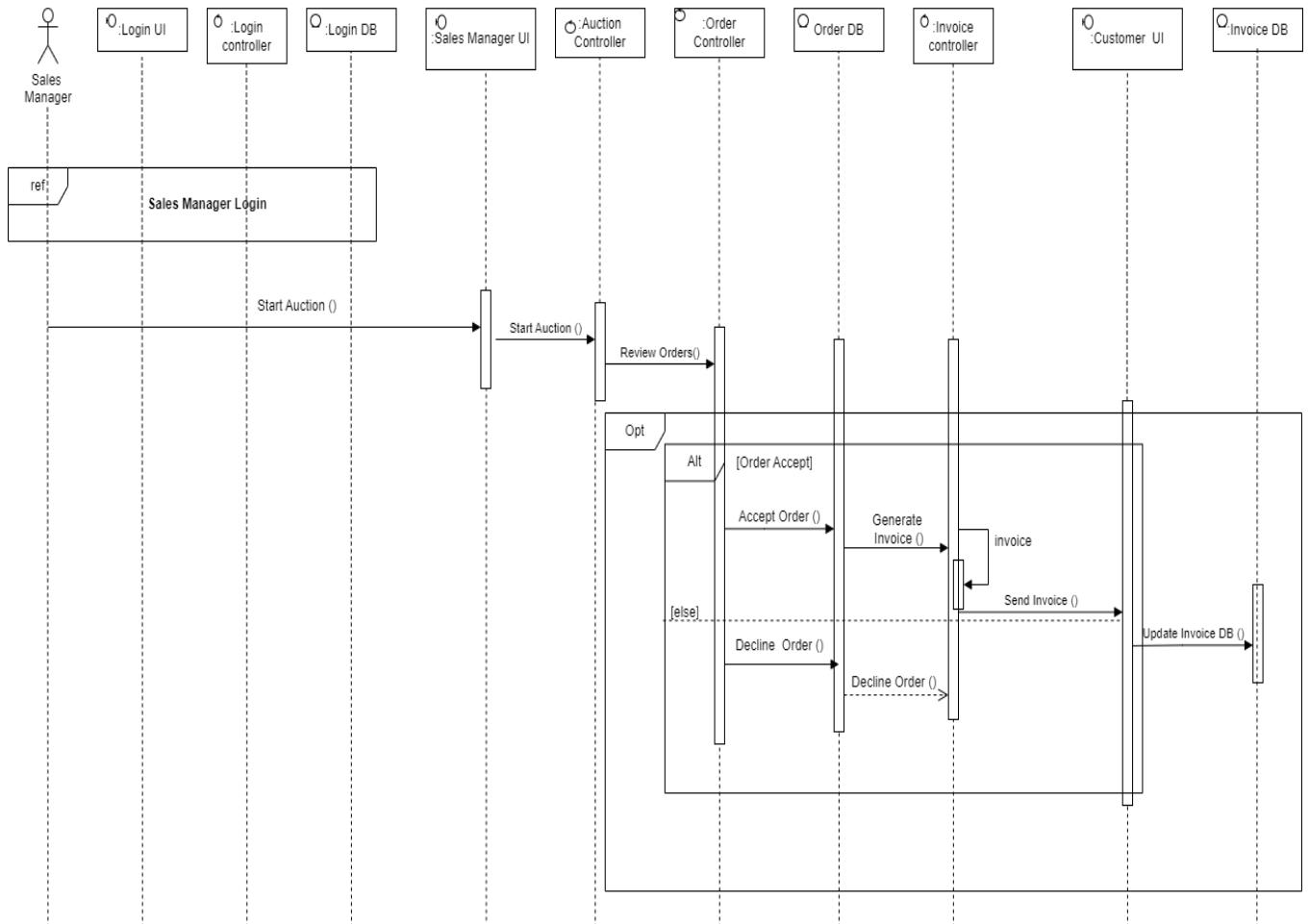


Sales and Order Management - IT22236500 -Randeniya A.A.S.L.B.R.P.W.R.C

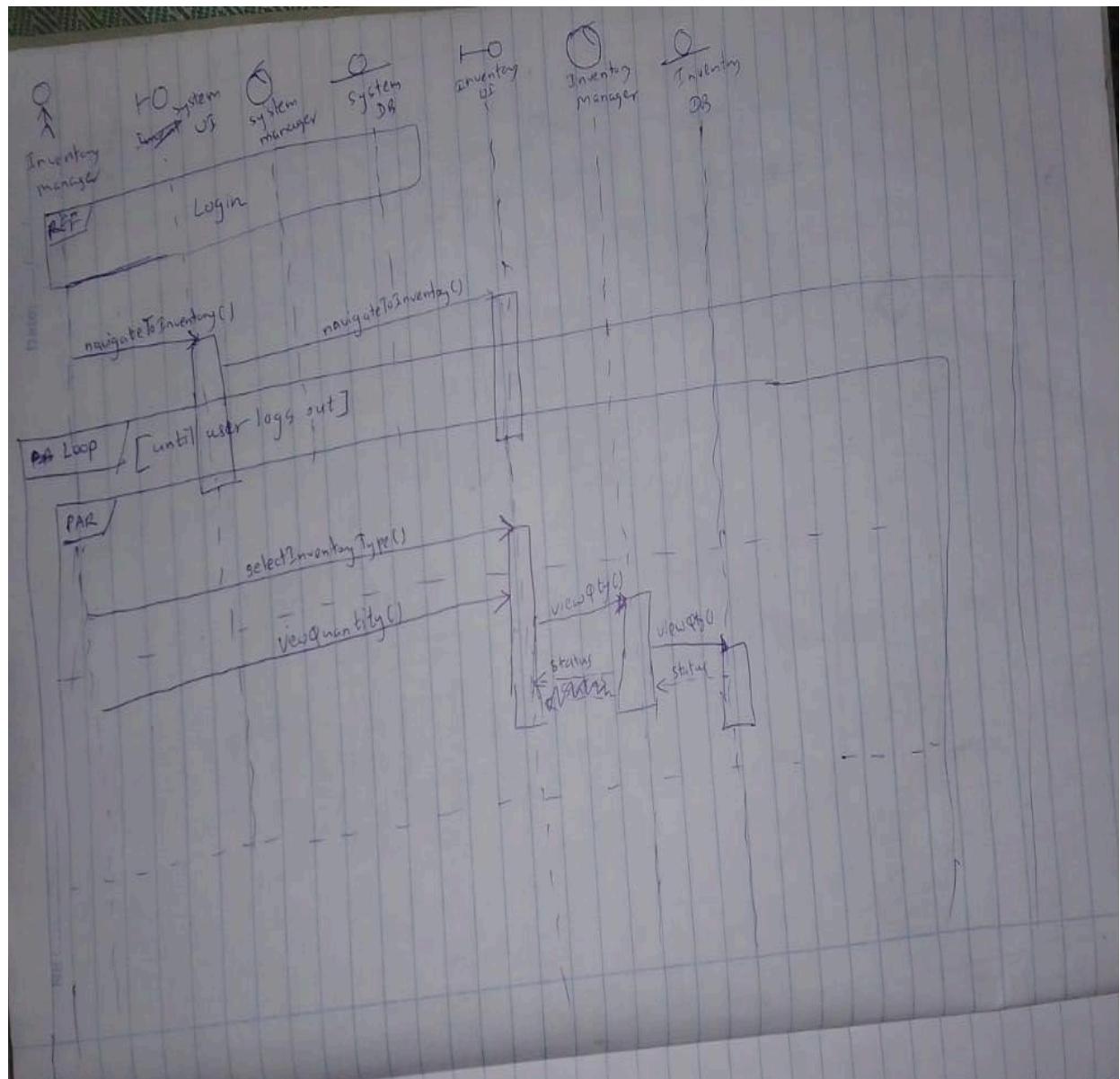
Activity Diagram



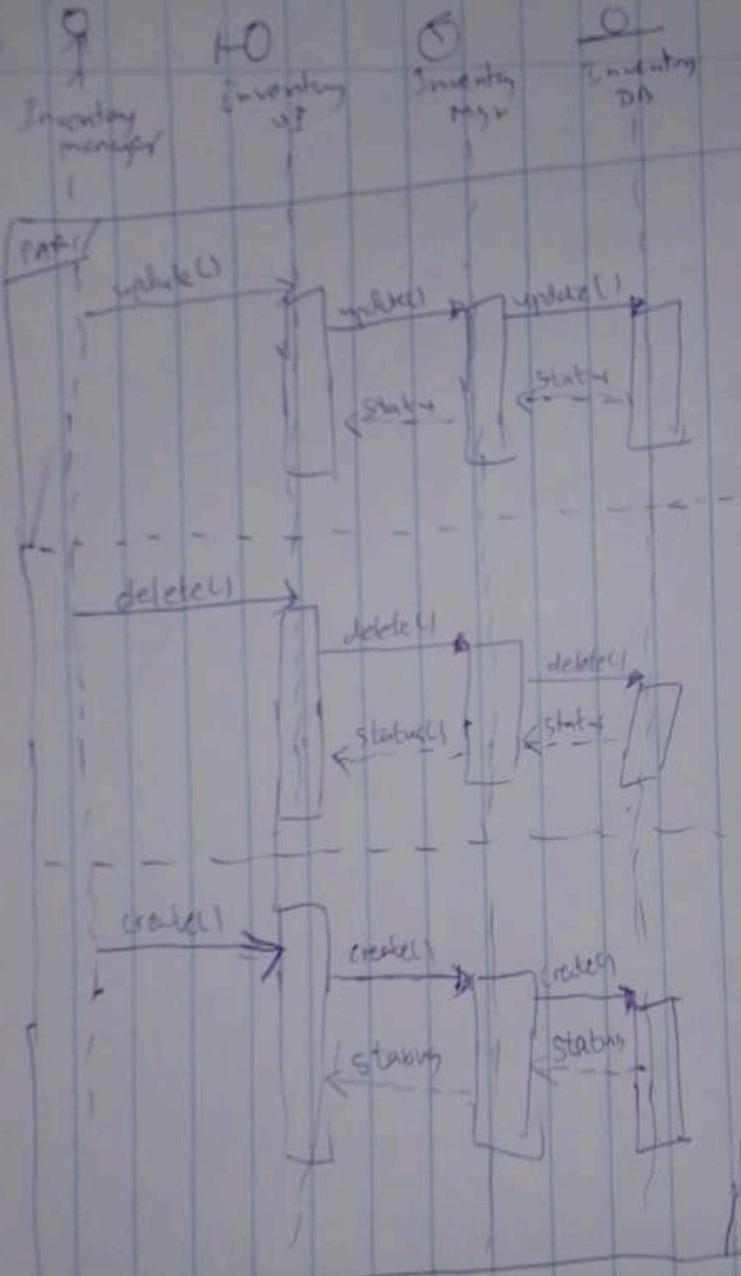
Sequence Diagram



Inventory Management



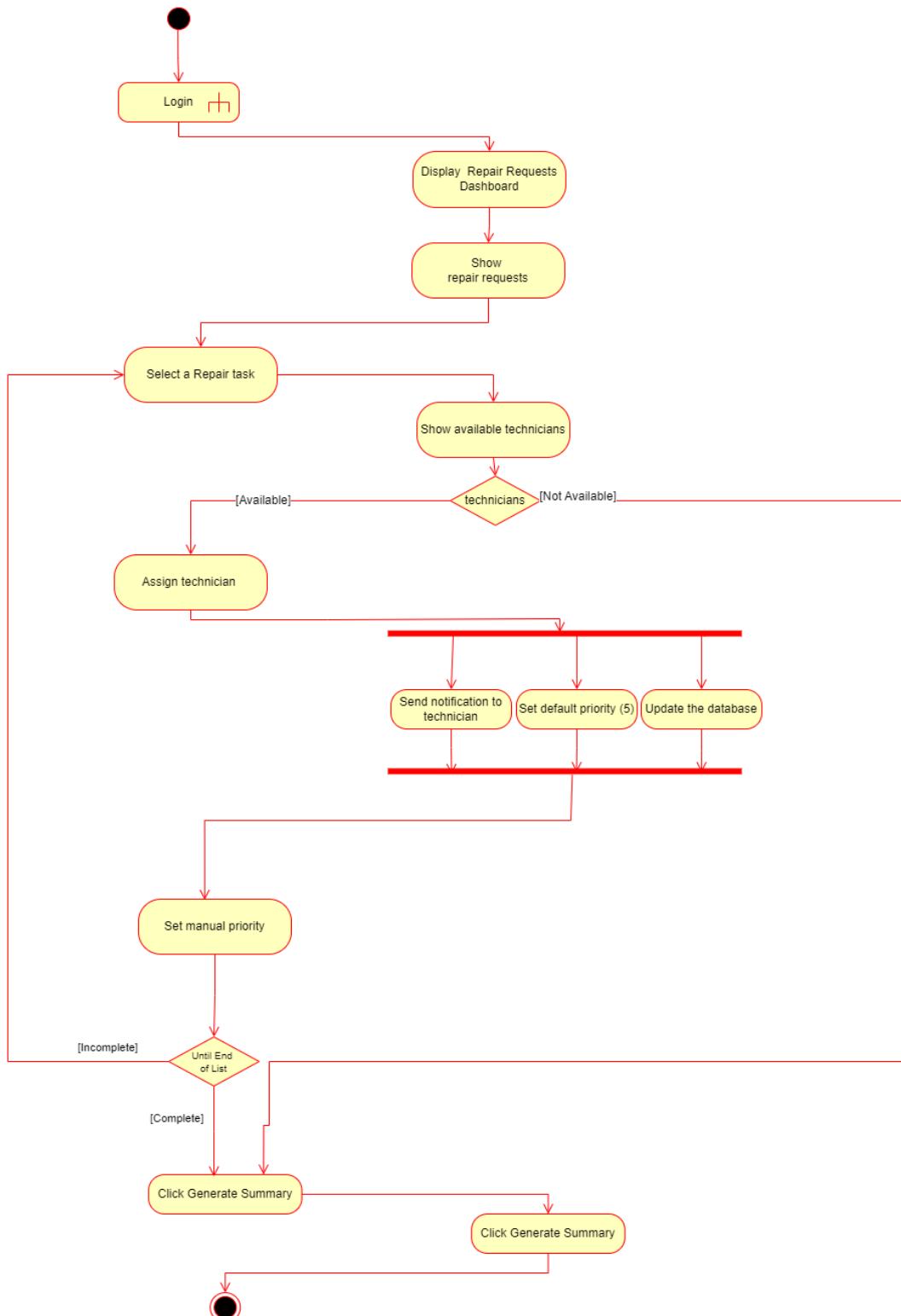
SD Inventory Management



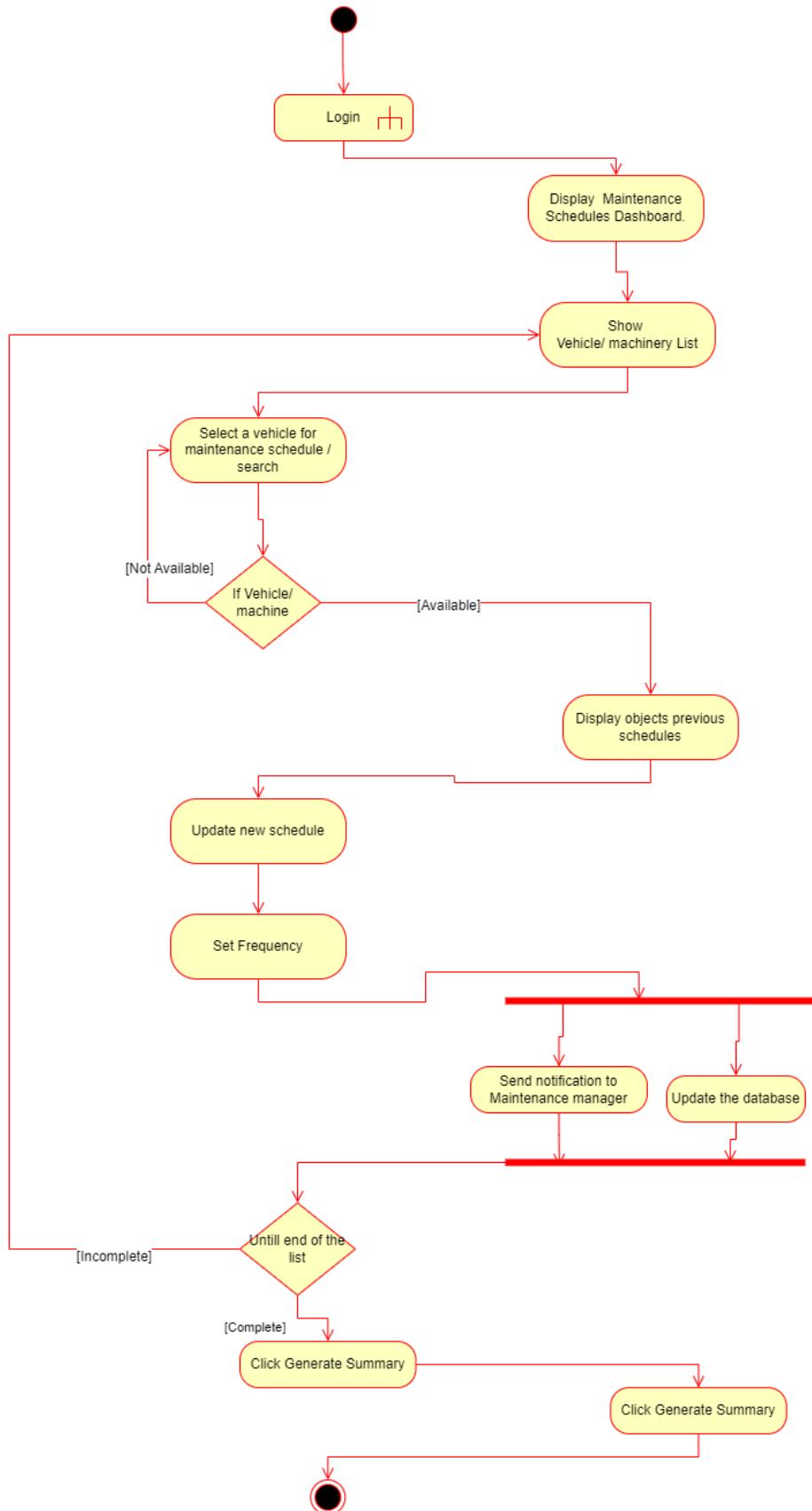
MM Asath - IT22633422

Repair And Management System

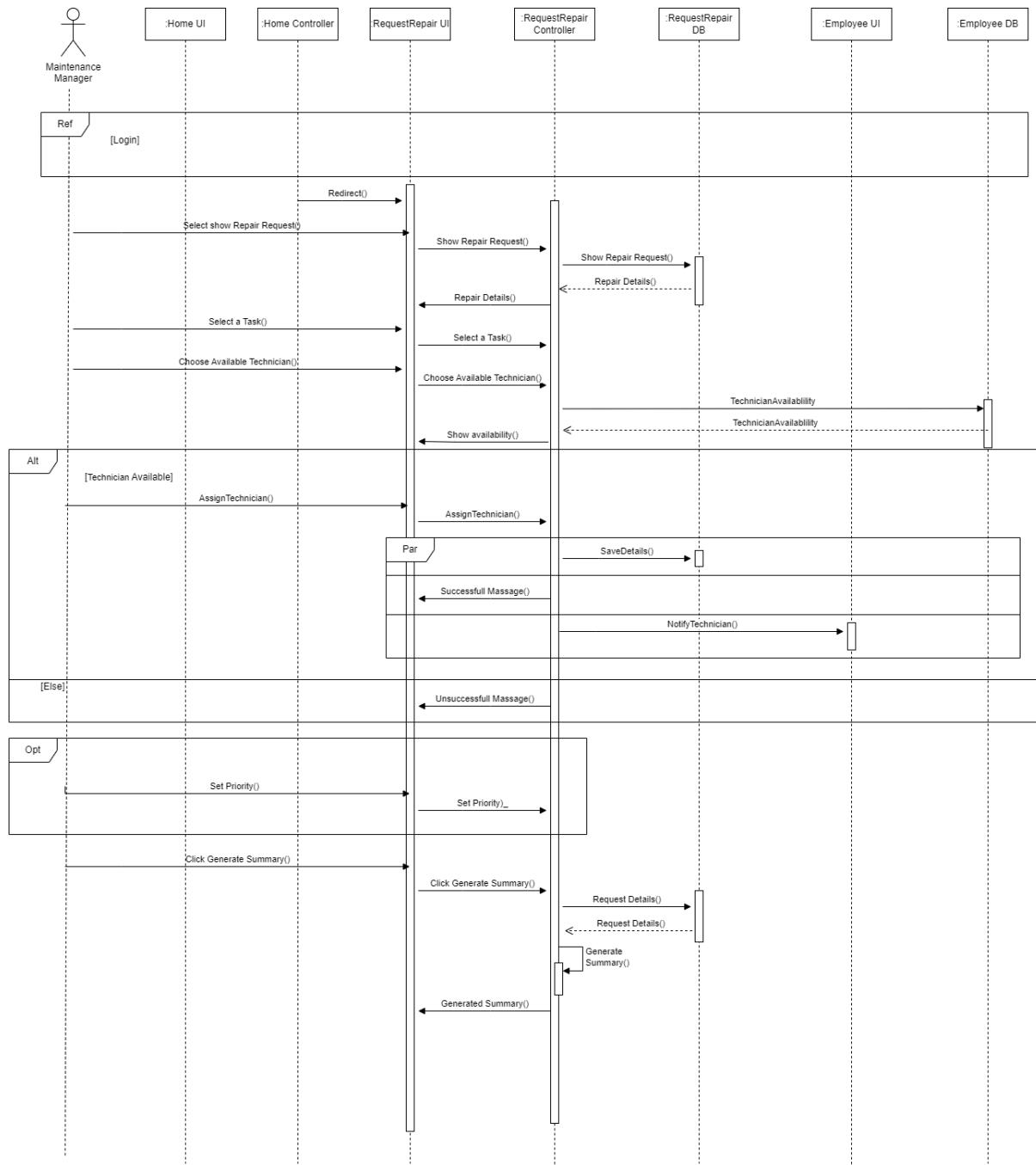
Activity Diagram for assign technician



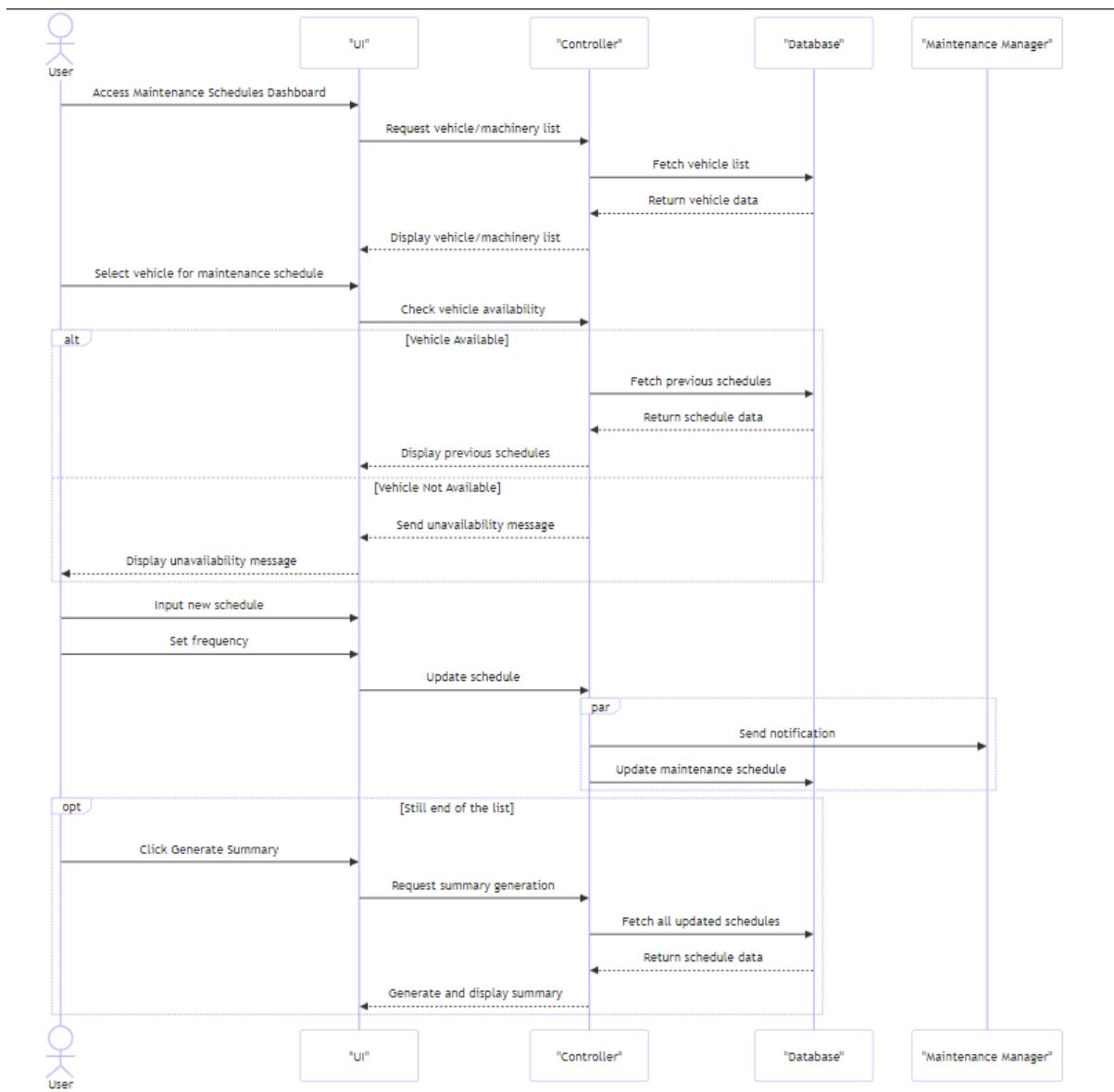
Activity Diagram for machine Details



Sequence Diagram for assign technician



Sequence Diagram for machine Details



6. GUI

Employee management - IT22001252 DE SILVA R K D H Employee management - Dashboard (manager view)

The screenshot shows the 'Employee Management' dashboard. On the left is a dark sidebar with the 'TEA MANAGEMENT' logo at the top. Below it are several menu items: Home, Vehicle management (Add vehicle, Manage vehicle), Route management (Add Route, Manage Routes, Spectate), and Employee Management (Employee Salaries, Employee Leaves, Employee Requirement). The 'Employee Management' section is currently selected and highlighted in teal. The main content area has a teal header bar with the title 'Employee Management'. Below it, there's a summary section with two boxes: 'Today Employees' (43) and 'On Leave Today' (05). A large button labeled 'ADD EMPLOYEE' is located below these boxes. The main table lists employees with columns for Name, Designation, Email, Contact No, and Actions (Edit, Delete). All listed employees are 'Dilnuk De Silva' with the role 'Employee Manager'.

Name	Designation	Email	Contact No	Actions
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>
Dilnuk De Silva	Employee Manager	dilnuk@gmail.com	0775444310	<button>Edit</button> <button>Delete</button>

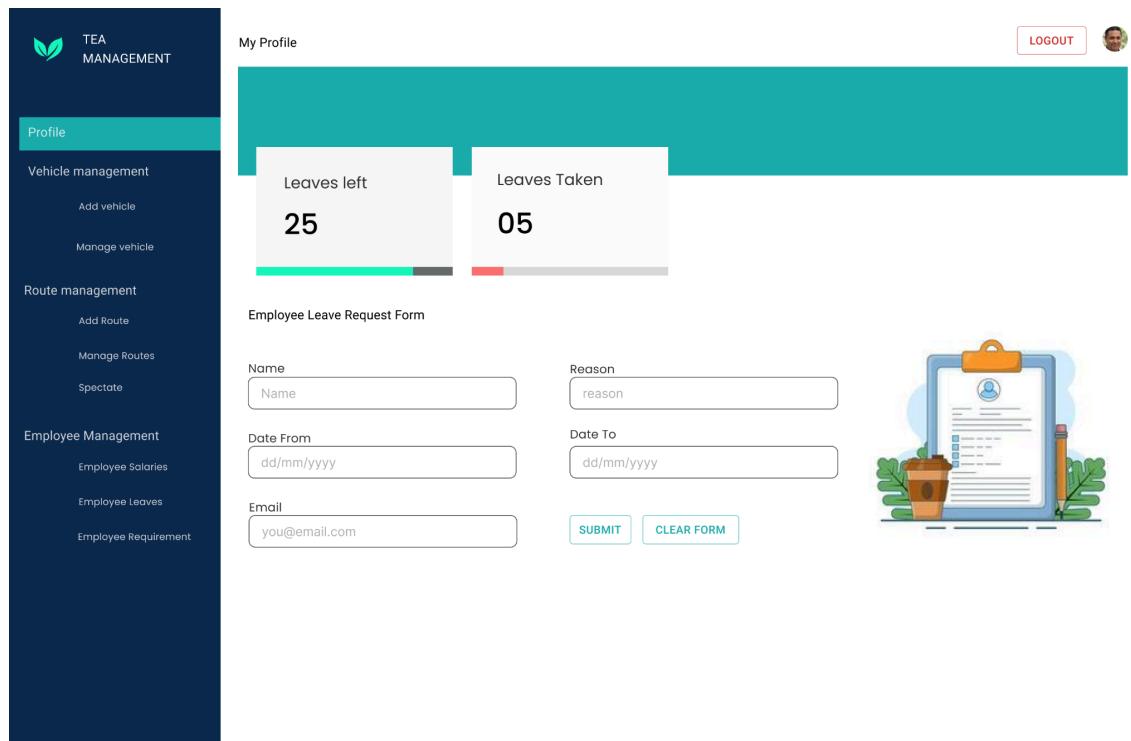
Employee management - Add employee (manager view)

The screenshot shows the 'Add Employee' form. The left sidebar is identical to the dashboard, with the 'Employee Management' section selected. The main form has a teal header bar with the title 'Employee Management'. Below it is a sub-header 'Add Employee'. The form contains several input fields: First Name, Date of Birth, Department, Last Name, Contact No, Gender (Male checked, Female uncheckable), NIC, Email, Age, Address, Designation, and Date Of Joining. There is also a circular file upload button labeled 'OP' with an upward arrow, and a note indicating a file size limit of '3MB SVG.PNG.JPG'. At the bottom right are 'SUBMIT' and 'CLEAR FORM' buttons.

Employee management - Leave management (manager view)

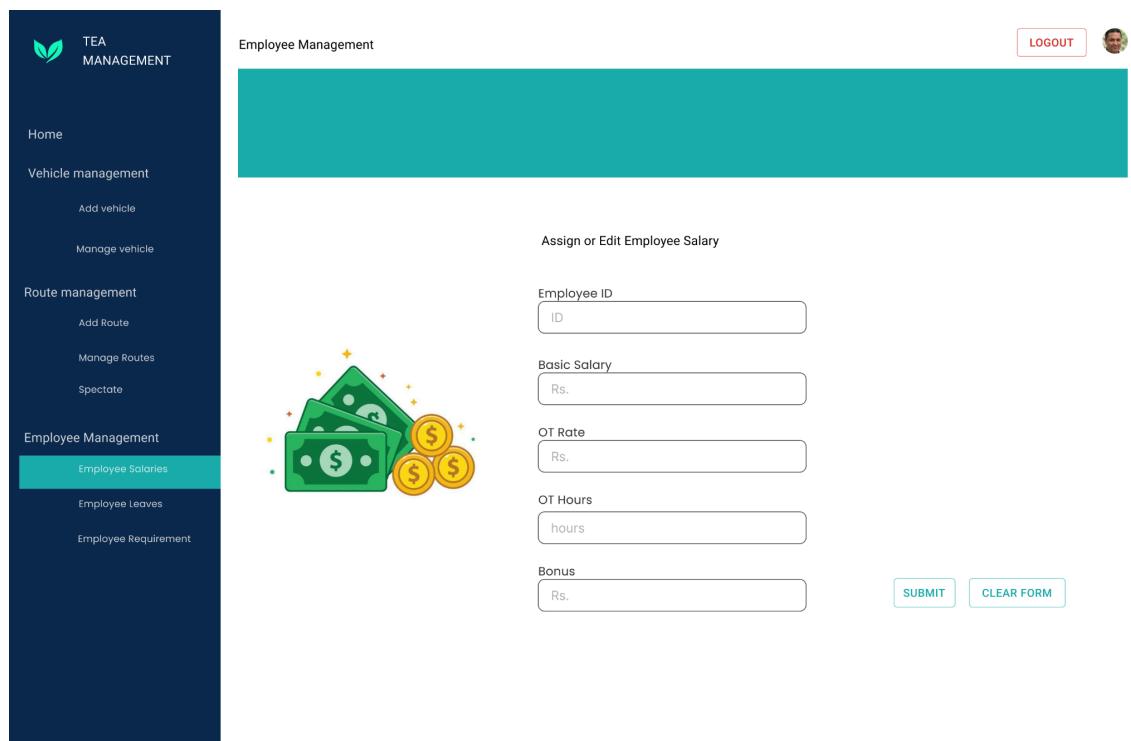
Employee management - salary management (manager view)

Employee management - leave request form (Employee view)



The screenshot shows the 'Employee Leave Request Form' page. On the left, a dark sidebar menu includes 'Profile', 'Vehicle management', 'Route management', and 'Employee Management' sections. Under 'Employee Management', 'Employee Salaries' is highlighted. The main area has a teal header bar with 'My Profile' and a user icon. Below it, a summary box shows 'Leaves left' (25) and 'Leaves Taken' (05). The form fields include 'Name' (placeholder 'Name'), 'Reason' (placeholder 'reason'), 'Date From' (placeholder 'dd/mm/yyyy'), 'Date To' (placeholder 'dd/mm/yyyy'), and 'Email' (placeholder 'you@email.com'). A 'SUBMIT' button and a 'CLEAR FORM' button are at the bottom right. An illustration of a clipboard with a resume and a coffee cup is on the right.

Employee management - Edit salary (manager view)



The screenshot shows the 'Assign or Edit Employee Salary' form. The sidebar menu is identical to the previous screen, with 'Employee Salaries' highlighted under 'Employee Management'. The main area has a teal header bar with 'Employee Management' and a user icon. The form fields are: 'Employee ID' (placeholder 'ID'), 'Basic Salary' (placeholder 'Rs.'), 'OT Rate' (placeholder 'Rs.'), 'OT Hours' (placeholder 'hours'), and 'Bonus' (placeholder 'Rs.'). A 'SUBMIT' button and a 'CLEAR FORM' button are at the bottom right. An illustration of money bills and coins is on the left.

Employee management - employee profile (employee view)

The screenshot displays the 'Employee management - employee profile' interface. At the top left is the 'TEA MANAGEMENT' logo. On the right, there are 'LOGOUT' and a user profile icon. The main area is titled 'My Profile'.

Key statistics are shown in three boxes:

- Leaves left: 25 (green bar)
- Leaves Taken: 05 (grey bar)
- OT Hours this month: 25 (red bar)

User information for Alexa Rawles (alexarawles@gmail.com) is displayed, along with 'EDIT' and 'REQUEST LEAVE' buttons.

An 'Important Notices' section shows a message from 'Employee Manager' about a leave request being approved, with an 'ACTION' button.

To the right, an 'Upcoming events' calendar for August 2024 is shown, with all days marked as '00'.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
00	00	00	00	00	00	00
00	00	00	00	00	00	00
00	00	00	00	00	00	00
00	00	00	00	00	00	00
00	00	00	00	00	00	00
00	00	00	00	00	00	00

Inventory management


**TEA
MANAGEMENT**

- [Home](#)
- [Inventory management](#)
 - [Manage Inventory](#)
 - [Auction Overview](#)
- [Order management](#)
 - [Add Route](#)
 - [Manage Routes](#)
 - [Spectate](#)
- [Transport management](#)
 - [Schedule a routine](#)
 - [Manage Routines](#)
- [Distribution Management](#)
 - [Manage Distributions](#)
 - [Delivery Complains](#)

INVENTORY




**TEA
MANAGEMENT**

- [Home](#)
- [Inventory management](#)
 - [Manage Inventory](#)
 - [Generate Reports](#)
- [Order management](#)
 - [Add Route](#)
 - [Manage Routes](#)
 - [Spectate](#)
- [Transport management](#)
 - [Schedule a routine](#)
 - [Manage Routines](#)
- [Distribution Management](#)
 - [Manage Distributions](#)
 - [Delivery Complains](#)

INVENTORY



Stock_ID	Name	Daily trip count	today's Covered trip	Actions
R1	A Active	3	1	DELETE EDIT
R1	A Active	3	1	DELETE EDIT
R1	A Active	3	1	DELETE EDIT
R1	A Active	3	1	DELETE EDIT
R1	A Active	3	1	DELETE EDIT
R1	A Active	3	1	DELETE EDIT

 TEA MANAGEMENT

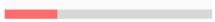
INVENTORY DASHBOARD

[LOGOUT](#) 

Available tea stock
50kg



Sold Tea packets
25

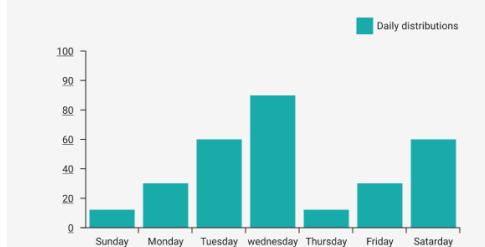


Available tea packets
120

Required tea packets
50kg



Last Week Tea Distribution



Day	Daily distributions
Sunday	15
Monday	35
Tuesday	60
wednesday	85
Thursday	15
Friday	30
Saturday	60

Important Notices

 Harvest Manager

Tea packet 50kg delivered. Available to pickup

[ACTION](#)

FIELD AND HARVEST MANAGEMENT

TEA MANAGEMENT

- Home
- Field Management
 - Add Field
 - Manage Fields
 - Assign Labours
- Fertilizer Management
 - Add Schedule
 - Manage Schedules
- Harvest Management
 - Daily Harvest Log
 - Update Inventory
 - Overtime Allowances
- Performances & Analysis
 - Employee Performance
 - Field Analysis
 - Yield & Quality Prediction
 - Summary Report

HOME

Total Area
1025 sqkm

No of Fields
06

Ready to Harvest
04

Yesterday's Harvest
1644 kg

Harvest Growth in 2024

Month	Growth (approx.)
Jan	15
Feb	40
Mar	60
Apr	80
May	95
June	98

WARNING

! Field Manager
Field 02 Harvest has Dropped by 20%

ACTION

Quality of Yesterday's Harvest

Quality	Percentage
Poor	~75%
Good	~20%
Best	~5%

TEA MANAGEMENT

- Home
- Field Management
 - Add Field**
 - Manage Fields
 - Assign Labours
- Fertilizer Management
 - Add Schedule
 - Manage Schedules
- Harvest Management
 - Daily Harvest Log
 - Update Inventory
 - Overtime Allowances
- Performances & Analysis
 - Employee Performance
 - Field Analysis
 - Yield & Quality Prediction
 - Summary Report

Field Management > **Add Field**

Field Details

Field Number

Estate Name

Fertilizer Schedule

Field Name

Area

First Name

Last Name

Address

Phone


**TEA
MANAGEMENT**

- [Home](#)
- [Field Management](#)
 - [Add Field](#)
 - [Manage Fields](#) (selected)
 - [Assign Labours](#)
- [Fertilizer Management](#)
 - [Add Schedule](#)
 - [Manage Schedules](#)
- [Harvest Management](#)
 - [Daily Harvest Log](#)
 - [Update Inventory](#)
 - [Overtime Allowances](#)
- [Performances & Analysis](#)
 - [Employee Performance](#)
 - [Field Analysis](#)
 - [Yield & Quality Prediction](#)
 - [Summary Report](#)

[Field Management](#)
> Manage Field

[LOGOUT](#) 

Attribute
Property



ACTION
NEW



Field	Supervisor	Status	ID
Field 01	John	Ready to Harvest	125
Field 02	Ben	Fertilization	145
Field 03		Ready to Harvest	486
Field 04	Tom	Weeding	245
Field 05	Sree	Ready to Harvest	789

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**TEA
MANAGEMENT**

- [Home](#)
- [Field Management](#)
 - [Add Field](#)
 - [Manage Fields](#)
 - [Assign Labours](#)
- [Fertilizer Management](#)
 - [Add Schedule](#)
 - [Manage Schedules](#) (selected)
- [Harvest Management](#)
 - [Daily Harvest Log](#)
 - [Update Inventory](#)
 - [Overtime Allowances](#)
- [Performances & Analysis](#)
 - [Employee Performance](#)
 - [Field Analysis](#)
 - [Yield & Quality Prediction](#)
 - [Summary Report](#)

[Fertilizer Management](#)
> Manage Schedule

[LOGOUT](#) 

Schedule ID	Crop Stage	Fertilizer Type	Fertilizer Source	Application Rate	Actions
R1	Field 01	Organic	Compost	1 kgm ²	DELETE EDIT
R1	Field 02	Organic	Urea	2 kgm ²	DELETE EDIT
R1	Field 03	Inorganic	Nitrogen	3 kgm ²	DELETE EDIT
R1	Field 04	Inorganic	Potassium	1 kgm ²	DELETE EDIT
R1	Field 05	Organic	Compost	1 kgm ²	DELETE EDIT
R1	Field 06	Inorganic	Nitrogen	2 kgm ²	DELETE EDIT

ADD CLEAR

TEA MANAGEMENT

- Home
- Field Management
 - Add Field
 - Manage Fields
 - Assign Labours**
- Fertilizer Management
 - Add Schedule
 - Manage Schedules
- Harvest Management
 - Daily Harvest Log
 - Update Inventory
 - Overtime Allowances
- Performances & Analysis
 - Employee Performance
 - Field Analysis
 - Yield & Quality Prediction
 - Summary Report

Field Management > Assign Labors

Available Labors 21 **Assigned** 106

Field ID	Name	No of Employees Required	No of Employees Assigned	Actions
R1	Field 01	2	10	DELETE EDIT
R1	Field 02	3	15	DELETE EDIT
R1	Field 03	0	26	DELETE EDIT
R1	Field 04	0	30	DELETE EDIT
R1	Field 05	5	11	DELETE EDIT

TEA MANAGEMENT

- Home
- Field Management
 - Add Field
 - Manage Fields
 - Assign Labours**
- Fertilizer Management
 - Add Schedule
 - Manage Schedules
- Harvest Management
 - Daily Harvest Log**
 - Update Inventory
 - Overtime Allowances
- Performances & Analysis
 - Employee Performance
 - Field Analysis
 - Yield & Quality Prediction
 - Summary Report

Harvest Management > Daily Harvest Log

Field	Employee ID	Best	Good	Damage	Mature	Total
E1	6kg	10kg	500g	3kg	19.5 kg	
E2	6kg	9kg	2kg	3kg	19.5 kg	
E3	4kg	17kg	500g	3kg	29.5 kg	
E4	6kg	10kg	200g	3kg	18 kg	
E5	6kg	10kg	100g	3kg	31.2 kg	
E6	5kg	15kg	1kg	3kg	19.5 kg	

ADD **CLEAR**


**TEA
MANAGEMENT**

- [Home](#)
- [Field Management](#)
 - [Add Field](#)
 - [Manage Fields](#)
 - [Assign Labours](#)
- [Fertilizer Management](#)
 - [Add Schedule](#)
 - [Manage Schedules](#)
- [Harvest Management](#)
 - [Daily Harvest Log](#)
 - [Update Inventory](#)
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 - [Employee Performance](#)
 - [Field Analysis](#)
 - [Yield & Quality Prediction](#)
 - [Summary Report](#)



Fertilizer Management > Add Schedule

Fertilizer Schedule Details

Schedule ID	<input type="text" value="ID"/>
Crop Stage	<input type="text" value="Harvest-ready"/>
Fertilizer Type	<input type="text" value="Organic/ Inorganic"/>
Fertilizer Source	<input type="text" value="Name of Fertilizer"/>
Application Rate	<input type="text" value="kg per sqm"/>
Labour Requirements	<input type="text" value="Select"/>

Buttons: ADD | CLEAR


**TEA
MANAGEMENT**

- [Home](#)
- [Field Management](#)
 - [Add Field](#)
 - [Manage Fields](#)
 - [Assign Labours](#)
- [Fertilizer Management](#)
 - [Add Schedule](#)
 - [Manage Schedules](#)
- [Harvest Management](#)
 - [Daily Harvest Log](#)
 - [Update Inventory](#)
 - [Overtime Allowances](#)
- [Performances & Analysis](#)
 - [Employee Performance](#)
 - [Field Analysis](#)
 - [Yield & Quality Prediction](#)
 - [Summary Report](#)

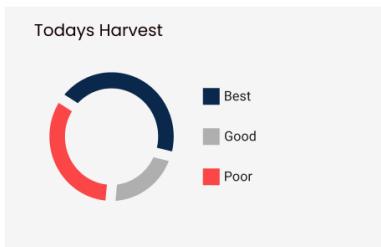
Harvest Management > Daily Harvest Log

Fields: Field ▾ ▾

Action Buttons: ACTION | NEW | ⚙

Quality	Quantity
Best	200kg
Good	450kg
Damage	60kg
Mature	800kg

Todays Harvest:



Legend:

- Best
- Good
- Poor

Buttons: ADD TO INVENTORY | CLEAR

Supply Management - IT22639844 - VIVIPEM L B R V

TEA ESTATE MANAGEMENT

- Home
- Supply management
 - Add Supply Type
 - Manage Supply**
 - Recievings
- Suppliers management
 - Add Supplier
 - Handle Suppliers
 - Get Supplier Stats
 - Order supply

Supply Management Manage Supply

LOGOUT 

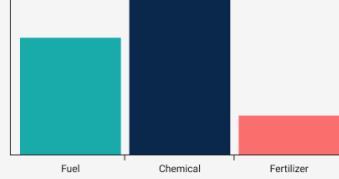
Details

Supply Type: Fuel

Type	Inventory Having	Shortage	Need action?
Fuel	8500liters	2500 liters	No

Supply and status on the inventory

Fuel Chemicals Fertilizers



Item	Status
Fuel	High
Chemical	Medium
Fertilizer	Low

TEA ESTATE MANAGEMENT

- Home
- Supply management
 - Add Supply Type
 - Manage Supply**
 - Recievings
- Suppliers management
 - Add Supplier
 - Handle Suppliers
 - Get Supplier Stats
 - Order supply

Supply Management Manage Supply

Details

Supply Type: Fuel Supplier Name: Mr. Samarasekara

From: To:

Type	Amount	Supplier Name	Date	Price
####	####	#####	####	####
####	####	#####	####	####
####	####	#####	####	####
####	####	#####	####	####
####	####	#####	####	####

TEA ESTATE MANAGEMENT

- Home
- Supply management
 - Add Supply Type
 - Manage Supply
 - Recievers
- Suppliers management
 - Add Supplier**
 - Handle Suppliers
 - Get Supplier Stats
 - Order supply

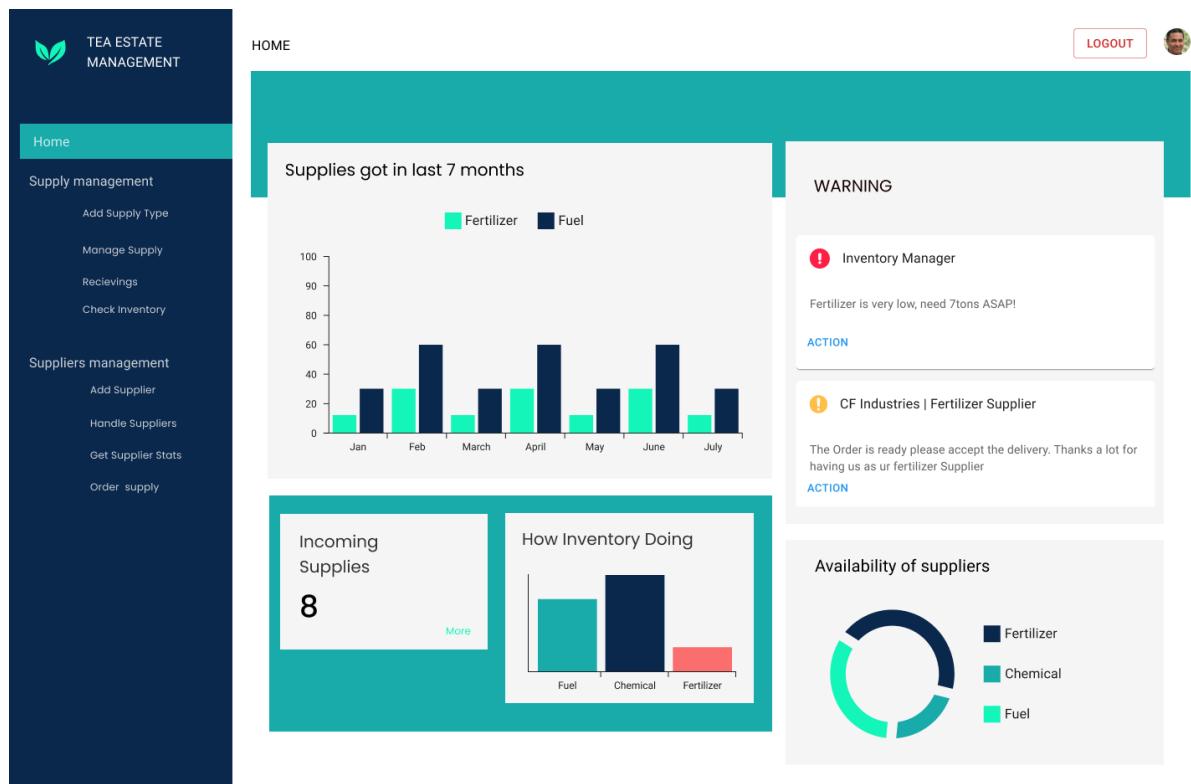
Suppliers Management [Add Supplier](#)

[LOGOUT](#) 

Supplier Details

Supplier Name	Supply Type
<input type="text"/>	<input type="text"/>
Company Name	Company Address
<input type="text"/>	<input type="text"/>
NIC	Contact Number
<input type="text"/>	<input type="text"/>
Email	Contact Number
<input type="text"/>	<input type="text"/>

ADD **CLEAR**



 TEA ESTATE
MANAGEMENT

- Home
- Supply management
 - Add Supply Type
 - Manage Supply
 - Recievers
 - Check Inventory
- Suppliers management
 - Add Supplier
 - Handle Suppliers
 - Get Supplier Stats
 - Order supply

Supply Management [Add new supply type](#)

[LOGOUT](#)



Supply Details

Supply Type*

Maximum Load needs

Minimum Load needs

Supplier Related Details

Maximum Suppliers

Name of the field in inventory

[CLEAR](#) [REGISTER](#)

Transport Management -IT22639776 - HERATH D M S T

TEA ESTATE MANAGEMENT

HOME

Logout

Available vehicle 43

Completed daily routines 25

Available vehicle 43

Available vehicle 43

Last Week Delivery Distribution

Daily distributions

Day	Distributions
Sunday	15
Monday	35
Tuesday	60
wednesday	85
Thursday	15
Friday	30
Saturday	60

Important Notices

Sales Manager

Please try to send the Order #247 quickly. Special Request by the customer

ACTION

Repair Manager

Vehicle PI-4568's Repair is finished. Available to pickup

Distribution of vehicles in different units

Harvest transport

Transports done in last few months

TEA MANAGEMENT

Vehicle Management > Add Vehicle

Logout

Vehicle Owner Details

First name * John

Last name *

Address 1 * horowpothana

Address 2

Helper text

Vehicle Details

Registration Number * Value

Cassie Number 414 141 414

Type of vehicle * Alabama

year of Manufacture 2000

Click to upload or drag and drop Vehicle Image

SVG, PNG, JPG or GIF (max. 3MB)

REGISTER CLEAR

TEA MANAGEMENT

- Home
- Vehicle management
 - Add vehicle
 - Manage vehicle
- Route management
 - Add Route
 - Manage Routes
- Transport management
 - Schedule a routine
 - Manage Routines
- Distribution Management
 - Manage Distributions**
 - Delivery Complaints

Distribution Management > Manage

On going Distributions

ID	Pickup Time	Vehicle	Progress	Orders	Action
4	7.20am	LB-4567	<div style="width: 20%;">Filled</div>	o34f,o345g,o3...	<button>CALL</button>
4	7.20am	LB-4567	<div style="width: 20%;">Filled</div>	o34f,o345g,o3...	<button>CALL</button>
4	7.20am	LB-4567	<div style="width: 20%;">Filled</div>	o34f,o345g,o3...	<button>CALL</button>
4	7.20am	LB-4567	<div style="width: 20%;">Filled</div>	o34f,o345g,o3...	<button>CALL</button>
4	7.20am	LB-4567	<div style="width: 20%;">Filled</div>	o34f,o345g,o3...	<button>CALL</button>

Next Pickup

PI-7532 Mr. Kmal Simon

ASK TO START **CHANGE VEHICLE**

Legend: Remaining space Filled

Search: Date, vehicle Attribute: Property **ACTION** **⚙️**

ID	Day	Start Time	Status	Assigned Vehicle
EmpT1	21/08/2024	4.30pm	COMPLETED	125
EmpT1	21/08/2024	4.30pm	COMPLETED	125
EmpT1	21/08/2024	4.30pm	COMPLETED	125
EmpT1	21/08/2024	4.30pm	COMPLETED	125
EmpT1	Today	7.30am	COMPLETED	224
Res2	Today	10.15	ABORTED	245

Rows per page: 5 1-5 of 13

TEA MANAGEMENT

- Home
- Vehicle management
 - Add vehicle**
 - Manage vehicle
- Route management
 - Add Route
 - Manage Routes
- Transport management
 - Schedule a routine
 - Manage Routines
 - Generate Report
- Distribution Management
 - Manage Distributions
 - Delivery Complaints

Vehicle Management > Manage

Search: Vehicle Num, department Attribute: Property **ACTION** **NEW** **⚙️**

Vehicle	Driver	Unit	Available status	ID
Tractor AE 4526	kapila	Employee Transport	A Active	125
Truck TD 3587	Thirugan	Harvest Transport	A Active	145
Truck PI 9834		Harvest Transport	A Active	486
Truck PD 6324	Hassan	Delivery Transport	A Active	245
Lorry 65-3658	Shivasthan	Delivery Transport	UA Maintanace	789

Rows per page: 5 1-5 of 13

Sales and Order Management-IT22236500 -RANDENIYA A.A.S.L.B.R.P.W.R.C

HOME

Generated Invoice **39**

Accepted Orders **35**

Declined Orders **15**

Last Week Sales Summary

Day	Daily Distributions
Sunday	10
Monday	30
Tuesday	60
Wednesday	85
Thursday	10
Friday	30
Saturday	60

Important Notices

Sales Manager
Please try to send the Order #247 quickly. Special Request by the customer
ACTION

Sales Manager
Start Auction meeting at 11.00 a.m.
ACTION

TEA MANAGEMENT

- Home
- Auction management
 - Start Auction
 - Auction Overview
- Order management
 - All Orders
 - Overview
 - Ready for Delivery
- Invoice Management
 - Generate Invoices:
 - Completed invoice
- Inventory Management
 - Manage Distributions
 - Delivery Complains

Auction Management

End Auction **125**

Upcoming Auctions **35**

Last Week Auction Summary

Status	Percentage
Upcoming	30%
Decline	40%
Accept	30%

TEA MANAGEMENT

- Home
- Auction management
 - Start Auction
 - Auction Overview
- Order management
 - All Orders
 - Overview
 - Ready for Delivery
- Invoice Management
 - Generate invoice
 - Completed invoice
- Inventory Management
 - Manage Distributions
 - Delivery Complains


**TEA
MANAGEMENT**

[Home](#)

[Auction management](#)

[Start Auction](#)

[Auction Overview](#)

[Order management](#)

[All Orders](#)

[Overview](#)

[Ready for Delivery](#)

[Invoice Management](#)

[Generate Invoice](#)

[Completed Invoice](#)

[Inventory Management](#)

[Manage Distributions](#)

[Delivery Complains](#)

Auction Overview

[LOGOUT](#)


Upcoming auctions

Auction_ID	Status	Date	Time	Actions
AI2021	P In Progress	05/10/2024	2:00 PM - 5:00 PM	DELETE EDIT
AI2022	P In Progress	06/10/2024	2:00 PM - 5:00 PM	DELETE EDIT
AI2023	P In Progress	05/10/2024	2:00 PM - 5:00 PM	DELETE EDIT
AI2024	S Scheduled	10/10/2024	2:00 PM - 5:00 PM	DELETE EDIT
AI2025	S Scheduled	11/10/2024	2:00 PM - 5:00 PM	DELETE EDIT
AI2026	S Scheduled	11/10/2024	2:00 PM - 5:00 PM	DELETE EDIT


**TEA
MANAGEMENT**

[Home](#)

[Auction management](#)

[Start Auction](#)

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[All Orders](#)

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[Overview](#)

[Ready for Delivery](#)

[Invoice Management](#)

[Generate Invoice](#)

[Completed Invoice](#)

[Inventory Management](#)

[Manage Distributions](#)

[Delivery Complains](#)

All Orders

[LOGOUT](#)


Order Details

Auction_ID	Order_ID	Date	Customer Name	Actions
AI2021	OI556	05/10/2024	Damro Pvt	DELETE EDIT
AI2022	OI556	06/10/2024	Damro Pvt	DELETE EDIT
AI2023	OI556	05/10/2024	Damro Pvt	DELETE EDIT
AI2024	OI556	10/10/2024	Damro Pvt	DELETE EDIT
AI2025	OI556	11/10/2024	Damro Pvt	DELETE EDIT
AI2026	OI556	11/10/2024	Damro Pvt	DELETE EDIT

[Download Report](#)

TEA MANAGEMENT

- [Home](#)
- [Auction management](#)
 - [Start Auction](#)
 - [Auction Overview](#)
- [Order management](#)
 - [All Orders](#)
 - [Overview](#)
 - [Ready for Delivery](#)
- [Invoice Management](#)
 - [Generate Invoice](#)
 - [Completed Invoice](#)
- [Inventory Management](#)
 - [Manage Distributions](#)
 - [Delivery Complaints](#)

All Orders

[LOGOUT](#)

Orders Overview

Orders got in last 7 months

Accepted Declined

Month	Accepted	Declined
Jan	15	30
Feb	30	60
March	15	30
April	30	60
May	15	30
June	30	60
July	15	30

Sales Growth in 2024

Month	Sales
jan	10
feb	30
march	60
april	80
may	95
june	100

Order_ID	Status	Date	Customer Name	Actions
OI968	A Accepted	05/10/2024	Damro Pvt	DELETE EDIT
OI967	D Declined	06/10/2024	Damro Pvt	DELETE EDIT
OI965	A Accepted	05/10/2024	Damro Pvt	DELETE EDIT

TEA MANAGEMENT

- [Home](#)
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 - [Start Auction](#)
 - [Auction Overview](#)
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 - [Generate Invoice](#)
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- [Performances & Analysis](#)
 - [Employee Performance](#)
 - [Field Analysis](#)
 - [Yield & Quality Prediction](#)
 - [Summary Report](#)

Generate Invoice

[LOGOUT](#)

Company Details

Customer Details

Order Details

Description	Quantity
<input type="text" value="Name"/>	<input type="text" value="units for each KG"/>
Unit Price:	Subtotal
<input type="text" value="Price"/>	<input type="text" value="Price"/>
Sales Tax	Grand Total
<input type="text" value="Tax"/>	<input type="text" value="Total Price"/>

SEND INVOICE

IT22633422 - MM Asath

Maintenance and Repair Management System

Activity Diagram For Assigning Technician

The screenshot displays two pages of the system:

Left Side (Navigation Bar):

- TEA MANAGEMENT
- Home
- Field Management
 - Add Field
 - Manage Fields
 - Assign Labours
- Fertilizer Management
 - Add Schedule
 - Manage Schedules
- Harvest Management
 - Daily Harvest Log
 - Update Inventory
 - Overtime Allowances
- Performances & Analysis
 - Employee Performance
 - Field Analysis
 - Yield & Quality Prediction
 - Summary Report

Right Side (Add New Machine Form):

Repair management > Add a Machine

Add New Machine

Schedule ID: #767

Type: Harvester

Machine Name: New machine 67

Machine Code: N/A

Description: Harvesting machine

Maintenance Frequency (in Days): 21 days

Buttons: ADD, CLEAR

Bottom Left (Navigation Bar):

- TEA MANAGEMENT
- Home
- Vehicle management
 - Add vehicle
 - Manage vehicle
- Route management
 - Add Route
 - Manage Routes
- Transport management
 - Schedule a routine
 - Manage Routines
 - Generate Report
- Distribution Management
 - Manage Distributions
 - Delivery Complaints

Bottom Right (Manage Technicians Table):

Action	New	Setting	
Search	Search technicians	Attribute Property	
Technician	Unit	Available status	ID
<input type="checkbox"/> Eng 7	Tea Machine	A Available	125
<input type="checkbox"/> Eng 4	Vehicle Fuel Engineer	A Available	145
<input type="checkbox"/> Eng 3	Pump Engineer	A Available	486
<input type="checkbox"/> Eng 2	Overall mechanic	A Available	245
<input type="checkbox"/> Eng 56	Instruction Engineer	UA Assigned	789

Rows per page: 5 1-5 of 13

Repair Management >All Vehicles

[LOGOUT](#) 

All Vehicles
43
Active
43
on Repair
43

Machine name	Status	Next Maintenance	Description	Actions
AI2021	P Working	05/10/2024	Description	MANAGE VIEW DATA
AI2022	P Working	06/10/2024	Description	MANAGE VIEW DATA
AI2023	P Working	05/10/2024	Description	MANAGE VIEW DATA
AI2024	S Working	10/10/2024	Description	MANAGE VIEW DATA
AI2025	O On Repair	11/10/2024	Description	MANAGE VIEW DATA
AI2026	S Working	11/10/2024	Description	MANAGE VIEW DATA

Repair Management >Raise repair issue

[LOGOUT](#) 

Repair Request ID =

Machine 2453#

Issue Type
Fuel

Priority
3

Description
Stuck valve

Full description

Assigned Technician
S janukshan

Issue
valve stuck and fuel pump filter is broken.
need a replacement

[EDIT](#) [DONE](#)

Repair Management > Machine Details

[LOGOUT](#) 

Machine 2453#//

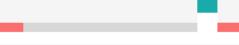
Total Maintenance

25



Total Repairs

05



Status

Active



Machine 2453#

Name	Machine 2453#
Type	Harvester
UQ Number	Stuck valve

History or repair and maintenance

Repair ID	Date	Maintenance Manager Name	Actions
AI2021	05/10/2024	Damro Pvt	VIEW
AI2022	06/10/2024	Damro Pvt	VIEW

HOME

[LOGOUT](#) 

Total requests

43



Solved

43



Pending

43



Repair Request	Status	Date	Description	Actions
AI2021	P In Progress	05/10/2024	Description	DELETE EDIT
AI2022	P In Progress	06/10/2024	Description	DELETE EDIT
AI2023	P In Progress	05/10/2024	Description	DELETE EDIT
AI2024	S Scheduled	10/10/2024	Description	DELETE EDIT
AI2025	S Scheduled	11/10/2024	Description	DELETE EDIT
AI2026	S Scheduled	11/10/2024	Description	DELETE EDIT

Product Manager - IT22175366 - MIHISARANI A K S

Product Management - Home UI

HOME

LOGOUT

Products Listed: 39

Products Viewed: 150

New Registrations: 15

Last Week Product View Summary

Most Viewed Products by Category

BOP (Red), BOPF (Blue), FBOP (Green)

Important Notices

Inventory Manager: Inventory Report (15/05/2024) [ACTION](#)

Sales Manager: Auction Starting Times BOP - 16/05/2024 16:30 [ACTION](#)

Product Management - Add Product UI

TEA MANAGEMENT

Logout

Product Management > Add Product

Product Details

Quality: BOPF

Quantity: 100T

Starting Unit Price: Rs.750

Description: BOPF (Broken Orange Pekoe Fannings) is a popular grade of black tea known for its strong flavor and rich color.

Auction Details

Date: mm/dd/yyyy

Time: hh:mm:ss AM/PM

Click to upload or drag and drop Vehicle Image
SVG, PNG, JPG or GIF (max. 3MB)

ADD CLEAR

Product Management - Manage Catalogue UI

TEA MANAGEMENT

Home

Product management

Add Product

Manage Catalogue

Catalogue

Product Management > Manage Catalogue

LOGOUT

SELECT QUALITY TYPE

BOPF

ADD PRODUCT

VIEW CATALOGUE

UPDATE PRODUCT

DELETE PRODUCT

Product_ID	Quality	Date	Actions
001	BOPF	15/05/2024	<button>DELETE</button> <button>EDIT</button>
002	BPF	15/05/2024	<button>DELETE</button> <button>EDIT</button>
003	DUST	15/05/2024	<button>DELETE</button> <button>EDIT</button>
004	BOPF	16/05/2024	<button>DELETE</button> <button>EDIT</button>
005	FBOP	16/05/2024	<button>DELETE</button> <button>EDIT</button>

Product Management - Product Catalogue UI

TEA MANAGEMENT

Home

Sing up

Profile

Auctioneer Notifications

Track Order

Order History

Catalogue

LOGOUT

Starts in 5:30h Available 200kg DFG400

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.

AUCTION

Starts in 5:30h Available 200kg DFG400

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.

AUCTION

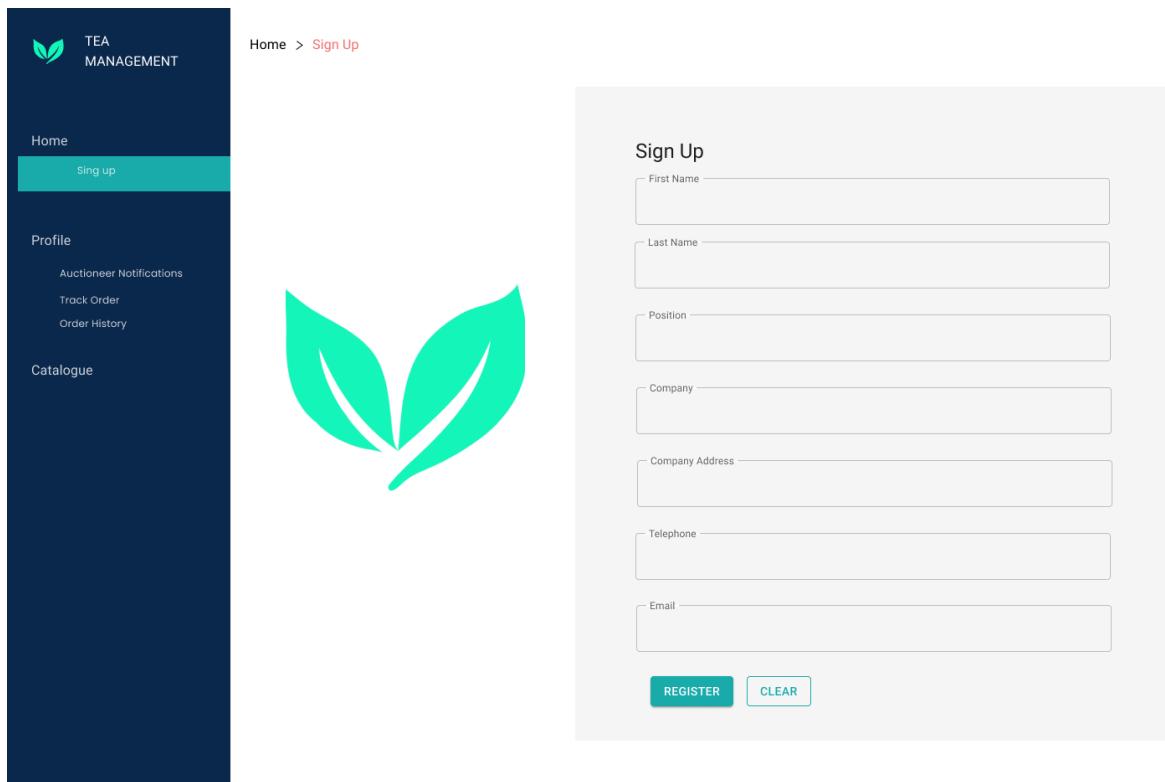
Starts in 5:30h Available 200kg DFG400

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.

AUCTION

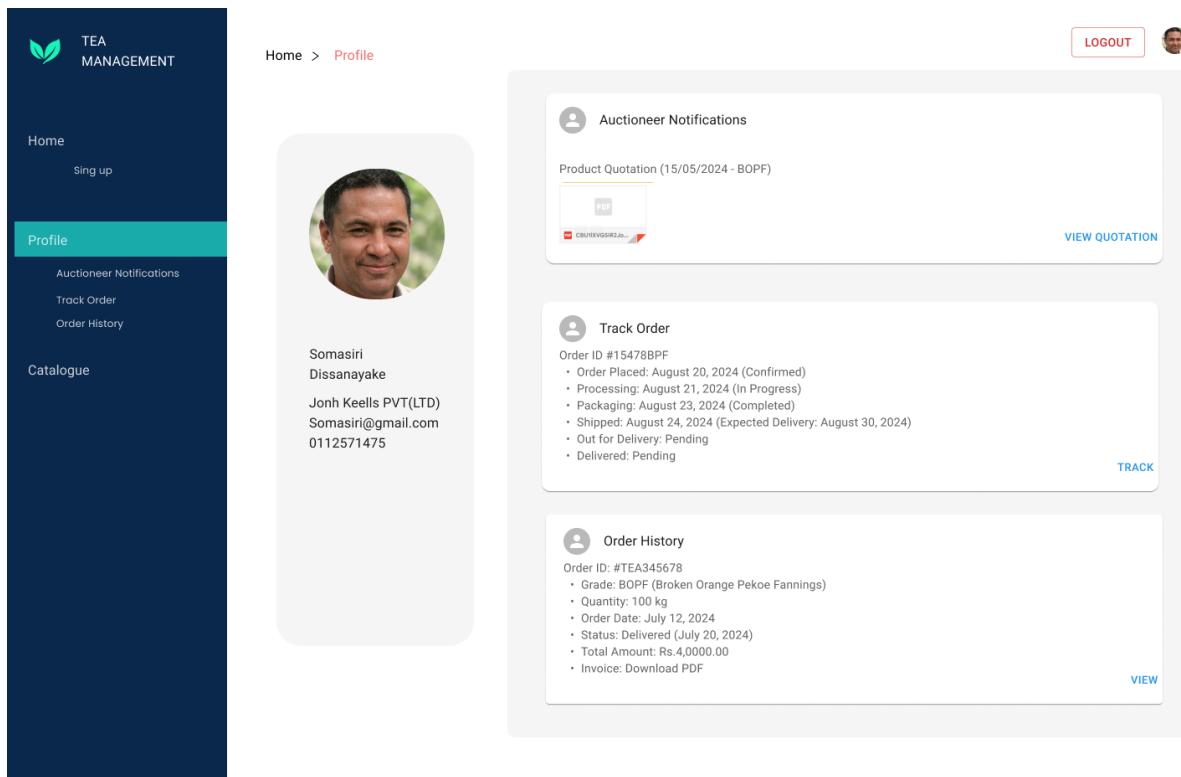
ENTER THE AUCTION FOR GET YOURS BUNDLE

Product Management - Sign Up UI



The sign-up interface for the Product Management system. It features a dark blue header with the 'TEA MANAGEMENT' logo and a teal navigation bar containing 'Home', 'Sing up' (which is highlighted), 'Profile', 'Catalogue', and 'Auctioneer Notifications'. Below the navigation bar is a large teal decorative graphic of overlapping leaves. The main content area shows the 'Sign Up' page with fields for First Name, Last Name, Position, Company, Company Address, Telephone, and Email. At the bottom are 'REGISTER' and 'CLEAR' buttons.

Product Management - Buyer Profile UI



The buyer profile interface for the Product Management system. It includes a dark blue header with the 'TEA MANAGEMENT' logo and a teal navigation bar with 'Home', 'Sing up', 'Profile' (highlighted), 'Catalogue', and 'Auctioneer Notifications'. The main content area displays a user profile card for 'Somasiri Dissanayake' from 'Jonh Keells PVT(LTD)' with the email 'Somasiri@gmail.com' and ID '0112571475'. To the right are three sections: 'Auctioneer Notifications' showing a product quotation for 'BOPF', 'Track Order' showing an order status for 'Order ID #15478BPF', and 'Order History' showing an order for 'Order ID: #TEA345678'.

7. ER Diagram

Link -

https://drive.google.com/file/d/12PNoS6e-ryitjuOGyR4Ug3MZYB1_2yO/view?usp=sharing

