

Project Clean Car

Group : CS 37

Project Supervisor: Mrs. Sanduni Thrimahavithana

Project Co-Supervisor: Mr. Roshan Abeyweera

Group details:

	Full Name	Registration Number	Index No	Signature
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2)	T.W.T.Dulshan	2018/CS/048	18000487	
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Set of Diagrams

Complete System's Use Case Diagram with narratives



Narratives

Use-Case Name:	Login	Use-Case Business Requirements: Need username and password to login (security). User can reset password when he or she forget password (security).
Use-Case ID:	01	
Priority:	medium	
Primary Business Actor:	Employee, manager, receptionist, customer account.	
Pre-Conditions(Source:)	Registered as Employee, manager, receptionist or customer.	
Post-Conditions	Display you are login successfully	
Description:	All users can login give user name and password. User can reset password when he or she forget password.	

Use-Case Name:	Change Login password	Use-Case Business Requirements: User can change own password(security).
Use-Case ID:	02	
Priority:	high	
Primary Business Actor:	Employee, manager, receptionist ,customer account.	
Pre-Conditions(Source:)	Login done through Employee, manager, receptionist or customer account.	
Post-Conditions	if not any other matters to attend to ,can logout.	
Description:	User can change their password	

Use-Case Name:	Logout	Use-Case Business Requirements: User can logout of profile after using the system(security).
Use-Case ID:	03	
Priority:	Medium	
Primary Business Actor:	Employee, manager, receptionist ,customer account.	
Pre-Conditions(Source:)	Login done through Employee, manager, receptionist or customer account.	
Post-Conditions	Login before reuse the system	
Description:	User can logout own profile after this use web system.	

Use-Case Name:	Add Employee	Use-Case Business Requirements: Manager can add employees who are joining newly to the database.
Use-Case ID:	04	
Priority:	Medium	
Primary Business Actor:	Manager	
Pre-Conditions(Source:)	Login to the system	
Post-Conditions	Issue Employee Id & password to Employee via SMS and update database.	
Description:	When a new employee join to the company, Manager can add the employee to the database by adding his details.	

Use-Case Name:	Delete Employee	Use-Case Business Requirements: Manager can remove employees from system.
Use-Case ID:	05	
Priority:	Medium	
Primary Business Actor:	Manager	
Pre-Conditions(Source:)	Login through manager account	
Post-Conditions	Send an information message to the employee and if not any other matters to attend to ,can logout	
Description:	Manager able to get decision whether employee is necessary or not	

Use-Case Name:	Update Employee	Use-Case Business Requirements: Manager can update employee personal details.
Use-Case ID:	06	
Priority:	Medium	
Primary Business Actor:	Manager	
Pre-Conditions(Source:)	Login through manager account	
Post-Conditions	Send an information message to the employee and if not any other matters to attend to ,can logout	
Description:	Only Manager able to update employee personal details. It will ensure the confidentiality of the employee details.	

Use-Case Name:	Add Employee Leave	Use-Case Business Requirements: Employee can request for leave through the system which will be accepted/rejected by the manager. Manager can apply leave to Employees' directly (who have technological issues).
Use-Case ID:	07	
Priority:	Medium	
Primary Business Actor:	Employee, Manager	
Pre-Conditions(Source:)	Login done through Employee or manager account	
Post-Conditions	Display Leave date & update calendar	
Description:	Employee can request leaves from manager. Employee can request from leaves from manager from without the system. Then manager can update the calendar and database from manager login	

Use-Case Name:	Cancel Leave	Use-Case Business Requirements: Employee can cancel leave which they applied for priorly. Manager can cancel employees’ leaves which were accepted before.
Use-Case ID:	08	
Priority:	Medium	
Primary Business Actor:	Employee, Manager	
Pre-Conditions(Source:)	Login done through Employee or manager account	
Post-Conditions	Update calendar & if not any other matters to attend to, can logout.	
Description:	Employee can cancel their pre requested leaves. If Employee doesn’t have technology facilities, they can cancel their leave through manager. As well as manager can cancel leaves from Employees for an urgent reason.	

Use-Case Name:	Accept Employee leaves	Use-Case Business Requirements: Manager can check employee leaves person-wise date wise.
Use-Case ID:	09	
Priority:	Medium	
Primary Business Actor:	Manager	
Pre-Conditions(Source:)	Login through manager account	
Post-Conditions	Send an information message to the employee and if not any other matters to attend to ,can logout	
Description:	Manager able to get decision whether leave reason and date are acceptable or not.	

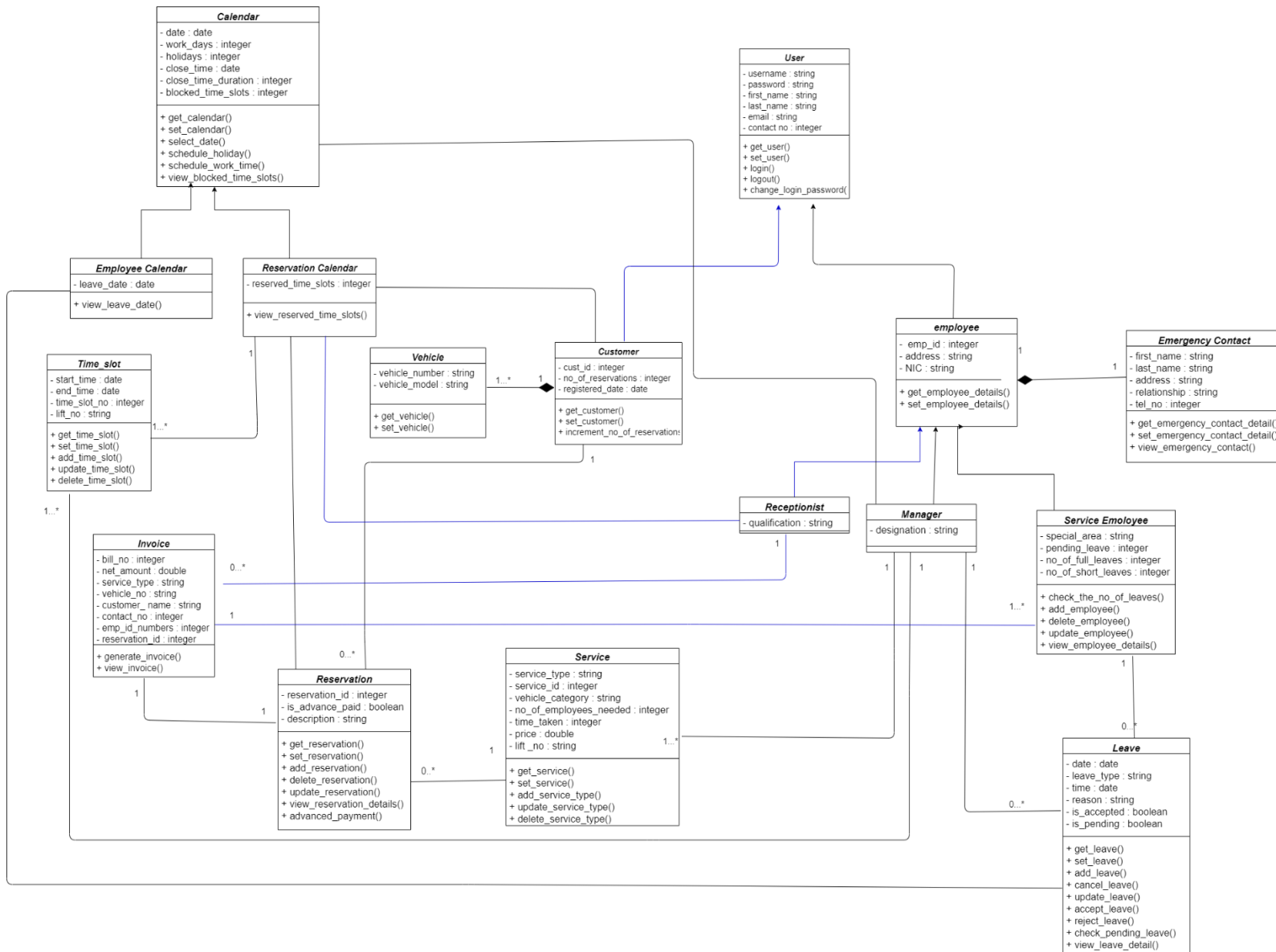
Use-Case Name:	View Business Report	Use-Case Business Requirements: Manager can view reports about the service station.
Use-Case ID:	10	
Priority:	Low	
Primary Business Actor:	Manager	
Pre-Conditions(Source:)	Login through manager account	
Post-Conditions	If not any other matters to attend to ,can logout.	
Description:	Only manager can view the business reports. Then manager able to get some feedback By using this business reports	

Use-Case Name:	Check The Number of Employees' Leaves In Current Year	Use-Case Business Requirements: Employee can check the number of leaves which they applied for in the current year. Manager can check employee leaves person-wise and date wise.
Use-Case ID:	11	
Priority:	Law	
Primary Business Actor:	Employee, manager	
Pre-Conditions(Source:)	Login done through Employee or manager account	
Post-Conditions	If not other matters to attend to, can log out	
Description:	Employee can check the number of leaves which get before in current year & they can plan how can get their leaves in current year. Manager can check the Employee leaves, search some categories. From it he can calculate Additional allowances of End the year.	

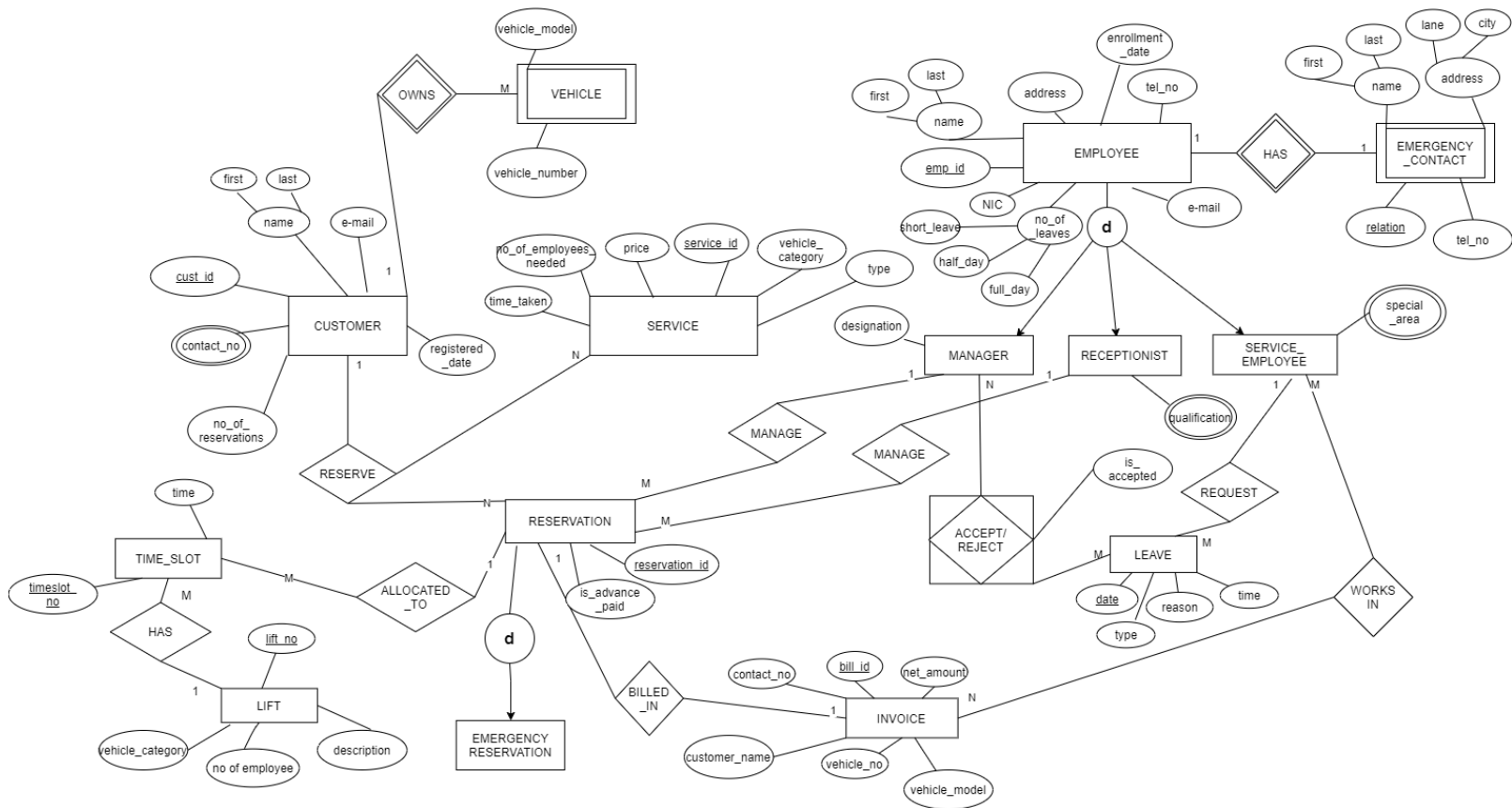
Use-Case Name:	Reserve booking	Use-Case Business Requirements: Customer can reserve a date/time priorly for their vehicle to have a service. Manager and receptionist can also make reservations for customers through system.
Use-Case ID:	12	
Priority:	High	
Primary Business Actor:	Customer, manager , receptionist	
Pre-Conditions	Should be logged in as customer or by receptionist	
Post-Conditions	If not other matters to attend to, can log out	
Description:	User can reserve the date/time for their car service priorly for an available timeslot. Online payment for an advance is possible and conditions(advance should be paid 48 hours before time of booking online or otherwise method), details, other ways of payment will be displayed. Main functionality of system. Receptionist and manager can also book for TP calls received from customers and for inquiries.	

Use-Case Name:	Delete, update booking	Use-Case Business Requirements: •Customer can delete, update the date a reservation made by them. •Manager, Receptionist can also delete, update a reservation made by a customer.
Use-Case ID:	13,14	
Priority:	High	
Primary Business Actor:	Customer, Manager , Receptionist	
Pre-Conditions	Should be logged in as customer	
Post-Conditions	Log out If successful: Update Calendar	
Description:	User can delete reserve the date/time for their car service priorly for an available timeslot. Customer can readily change the time to another available time slot if there's more than 48 hours from current time. If not he/she is given a single chance to change/delete. If not, it cannot be changed. Deletion is possible here, but no refunds will be settled.	

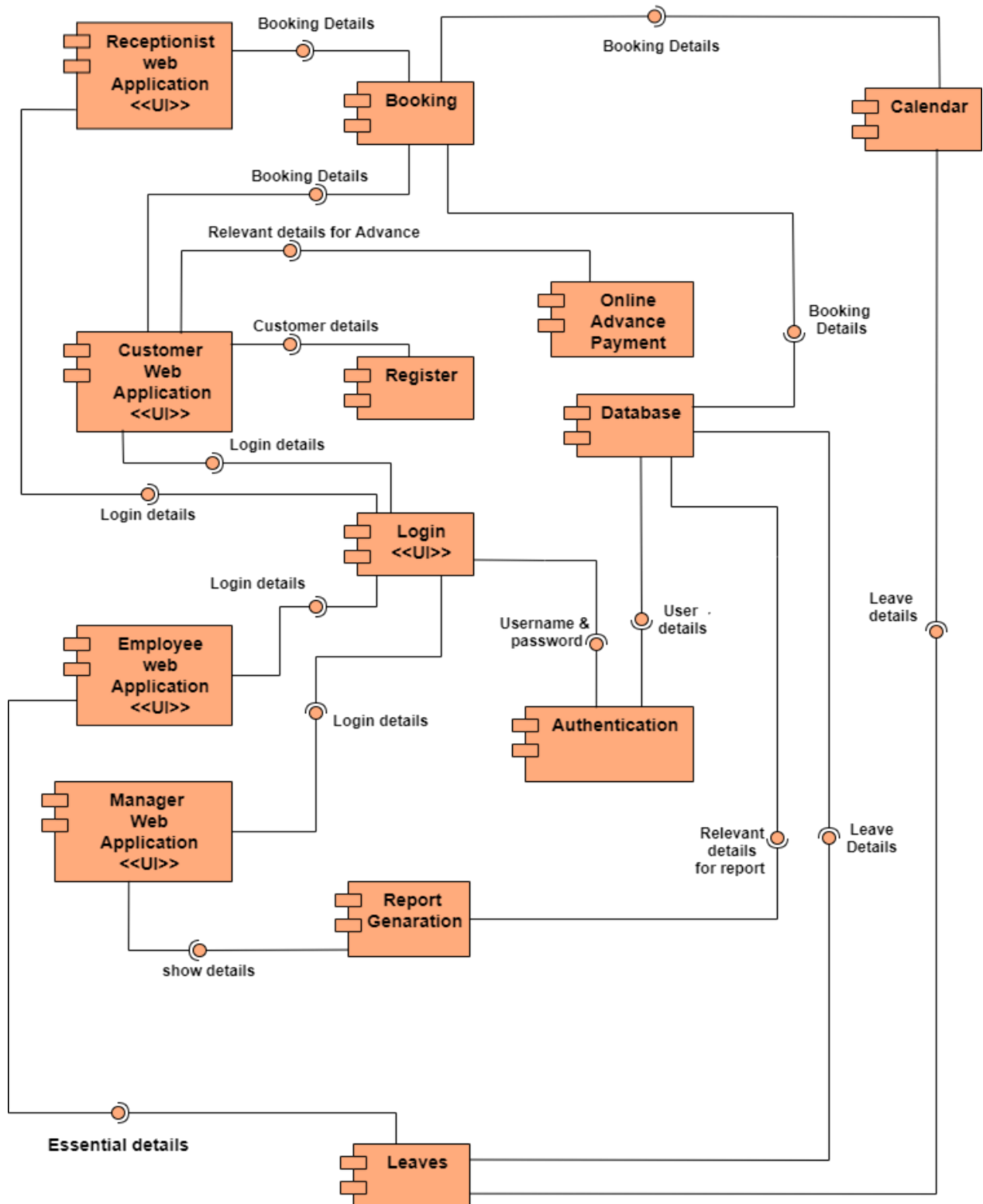
Class Diagram



ER Diagram

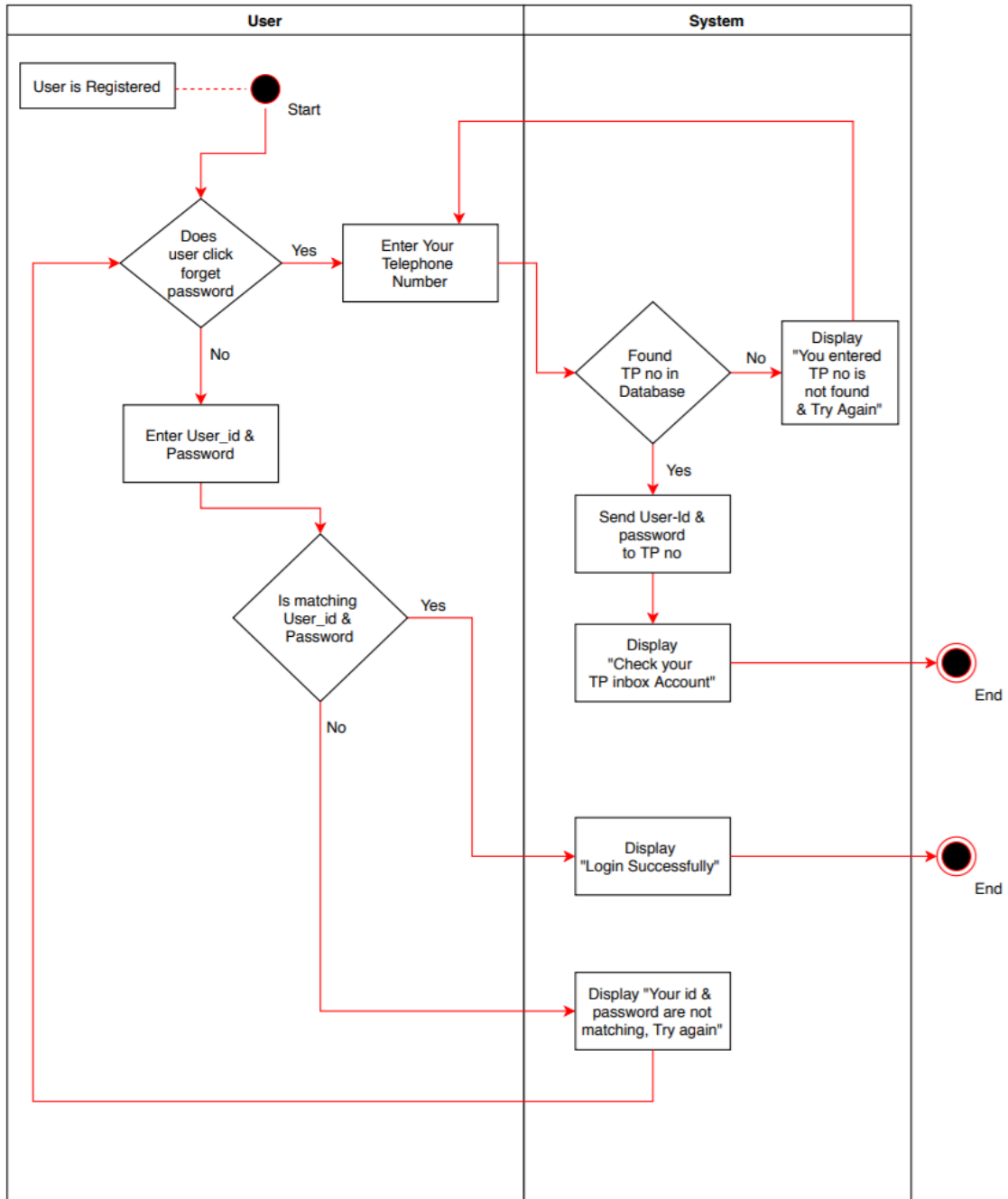


Component Diagram

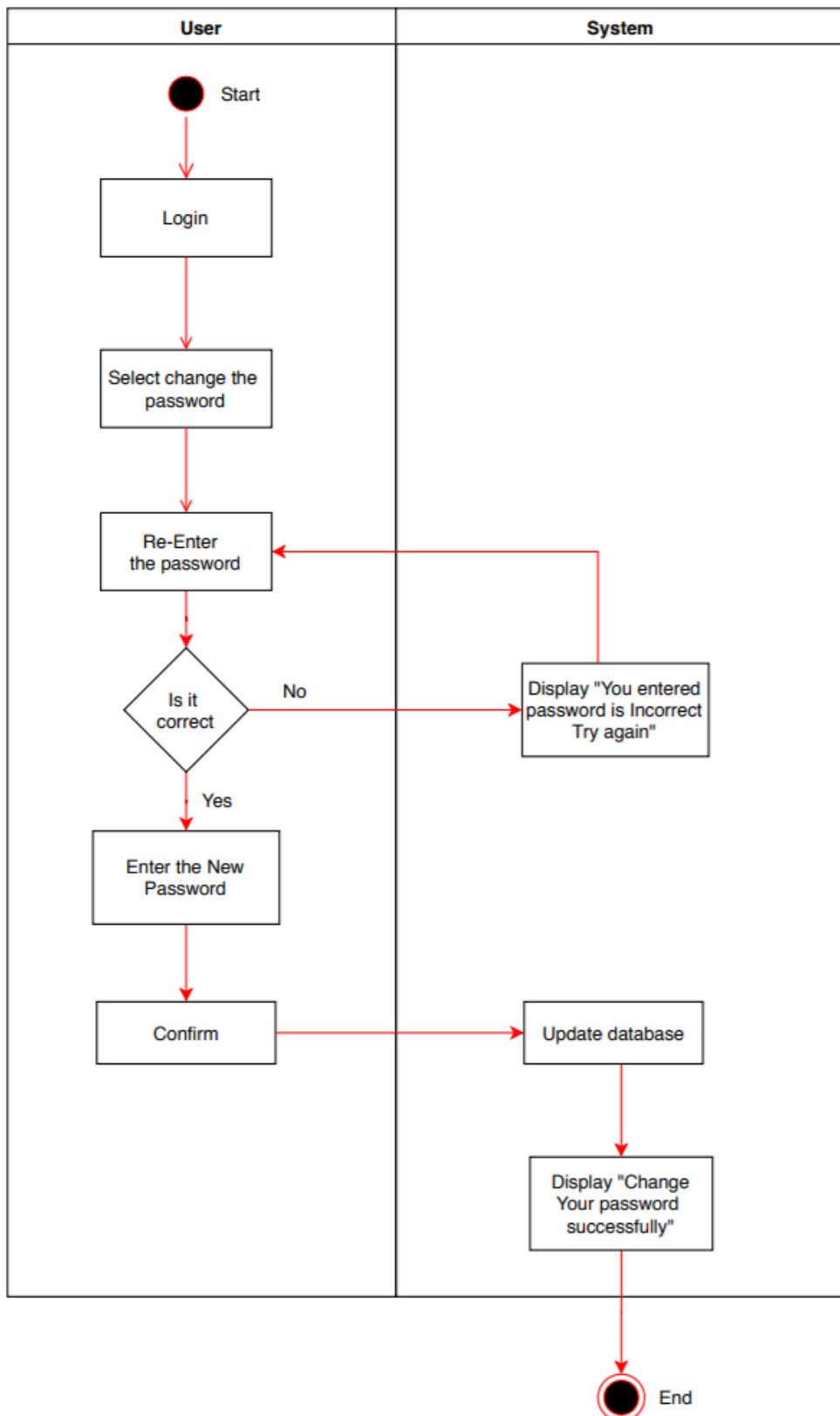


Activity Diagrams

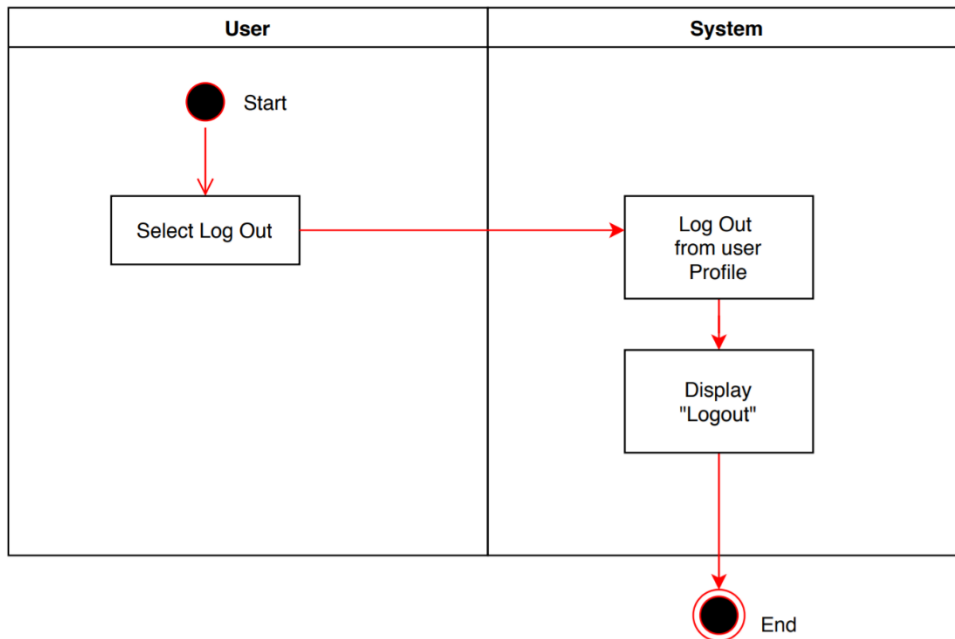
Login – All users



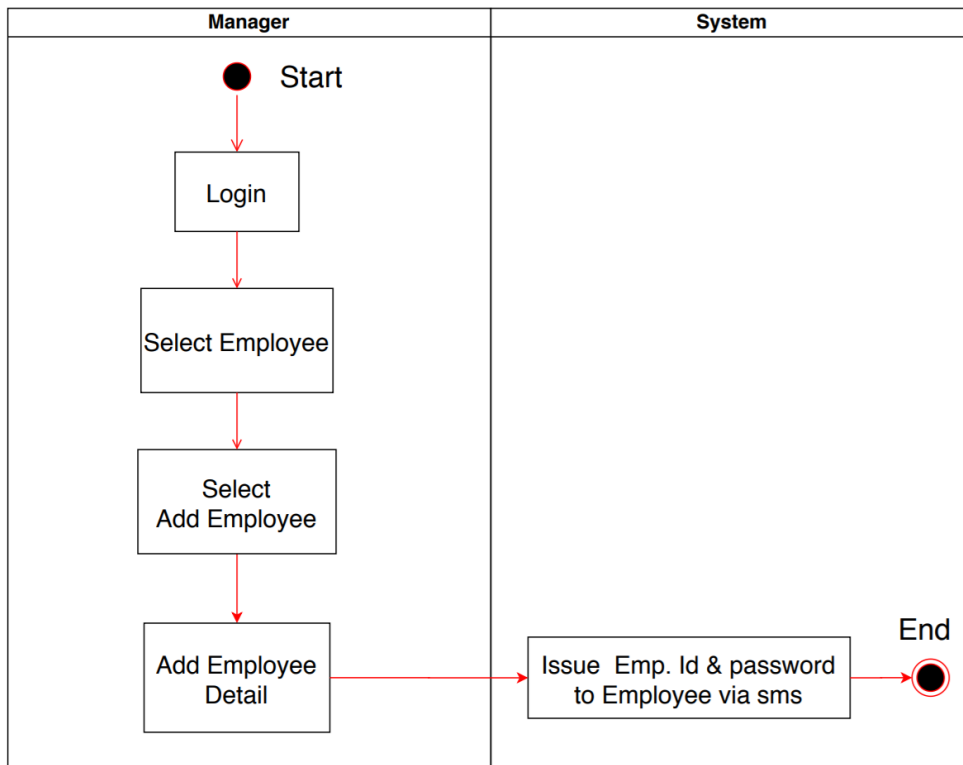
Change Login Password



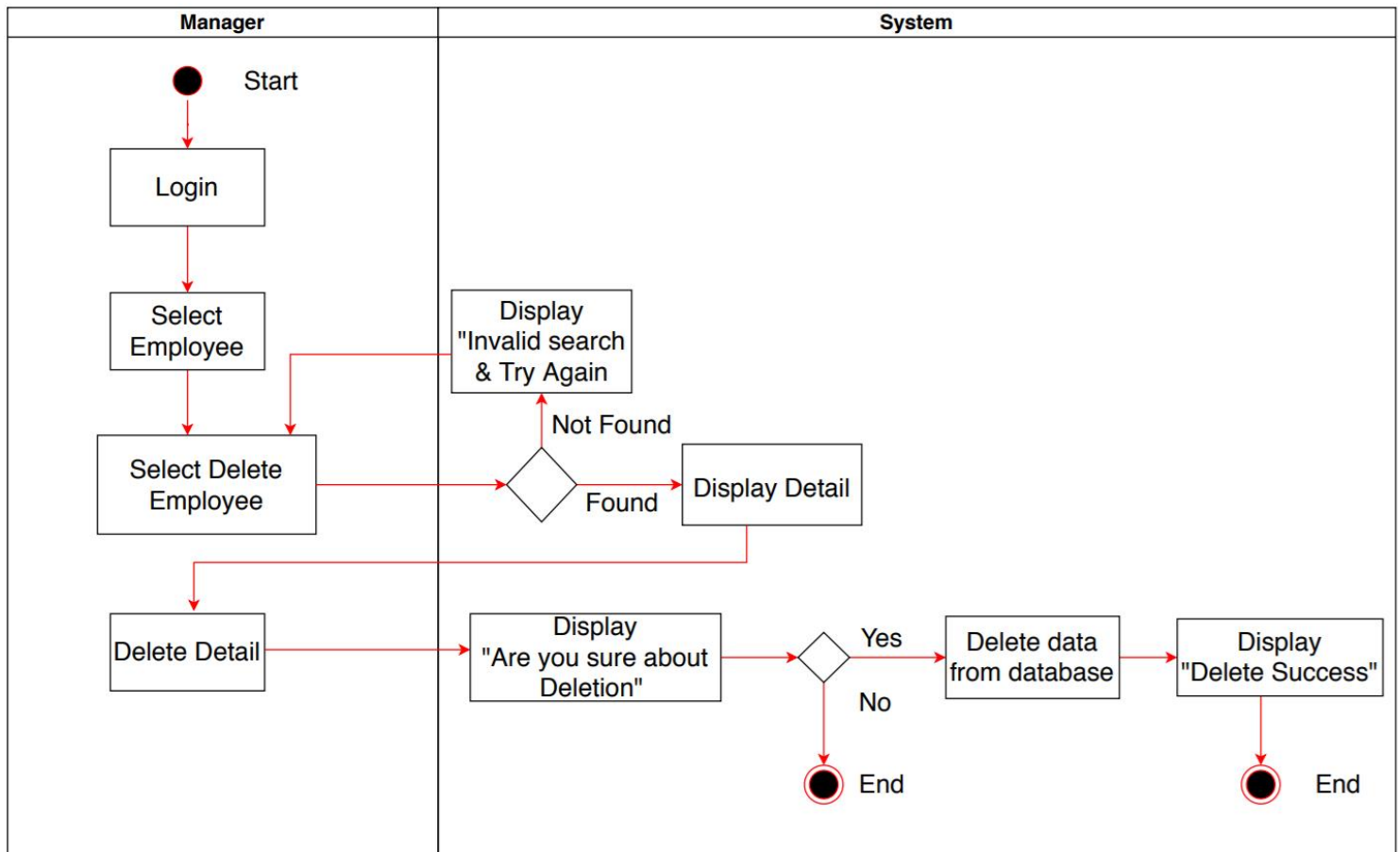
Logout – User



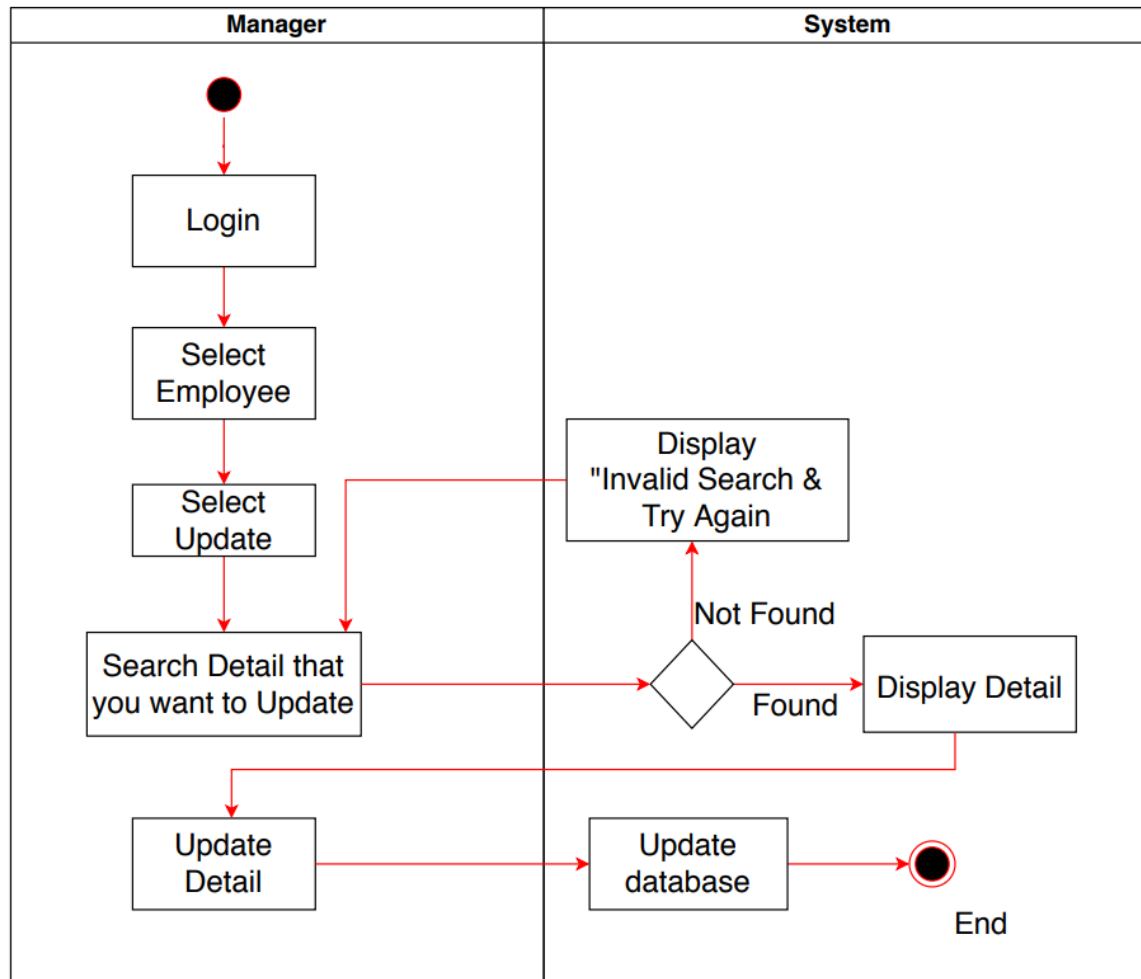
Add Employee – Manager



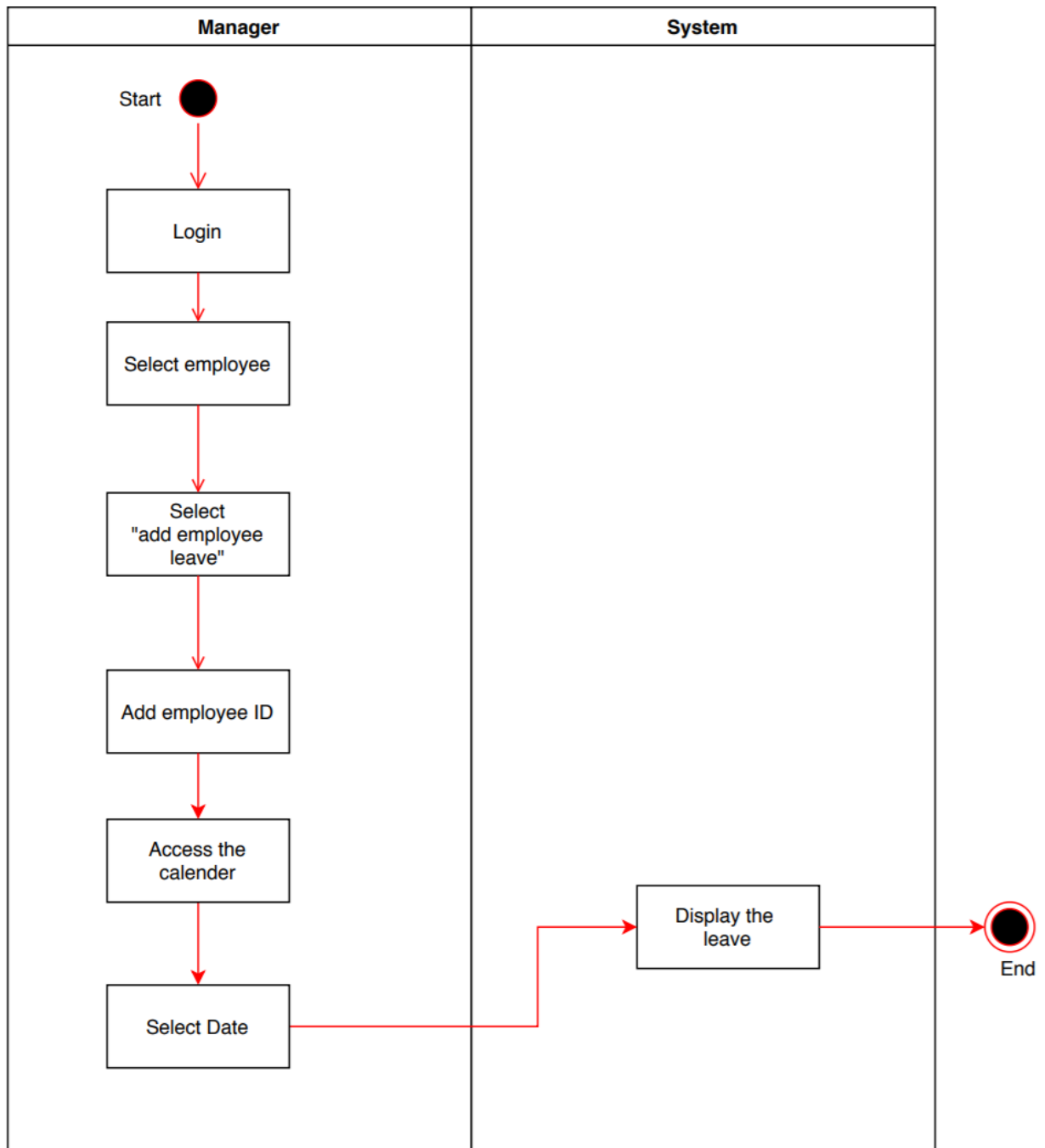
Delete Employee – Manager



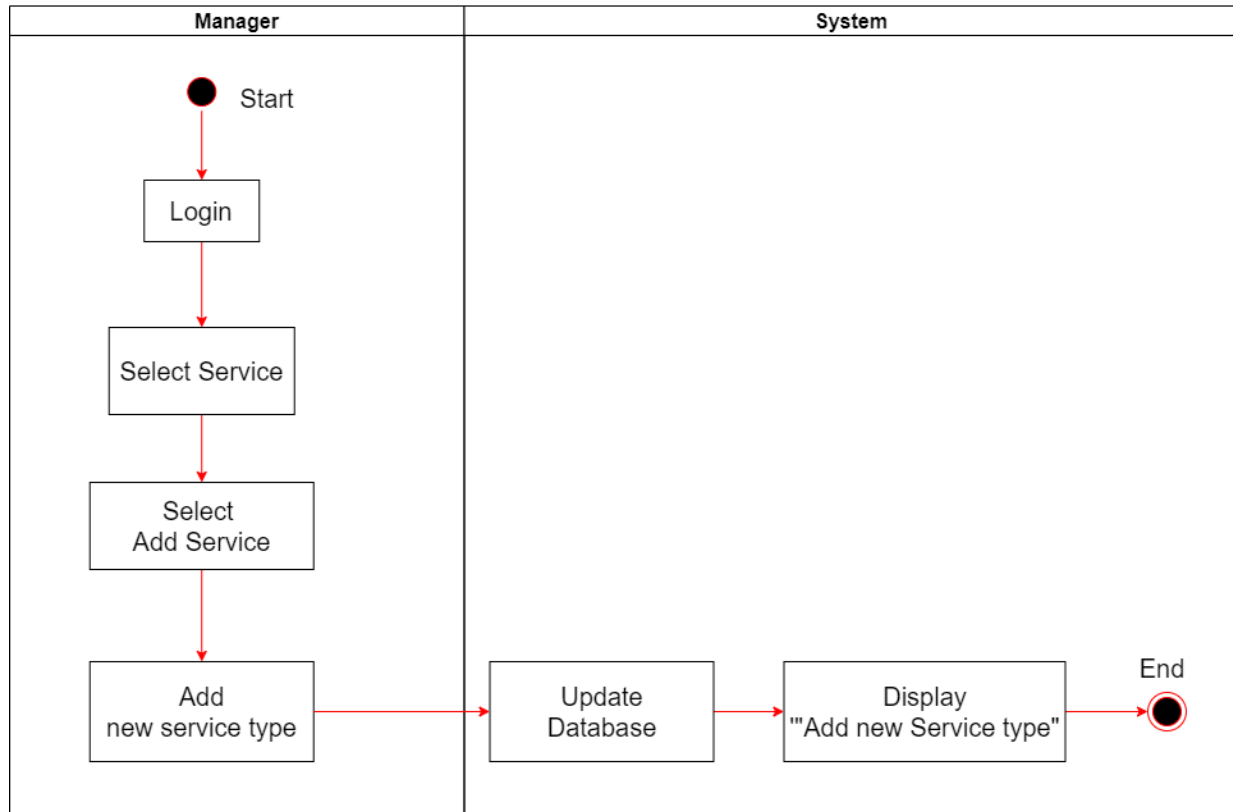
Update Employee – Manager



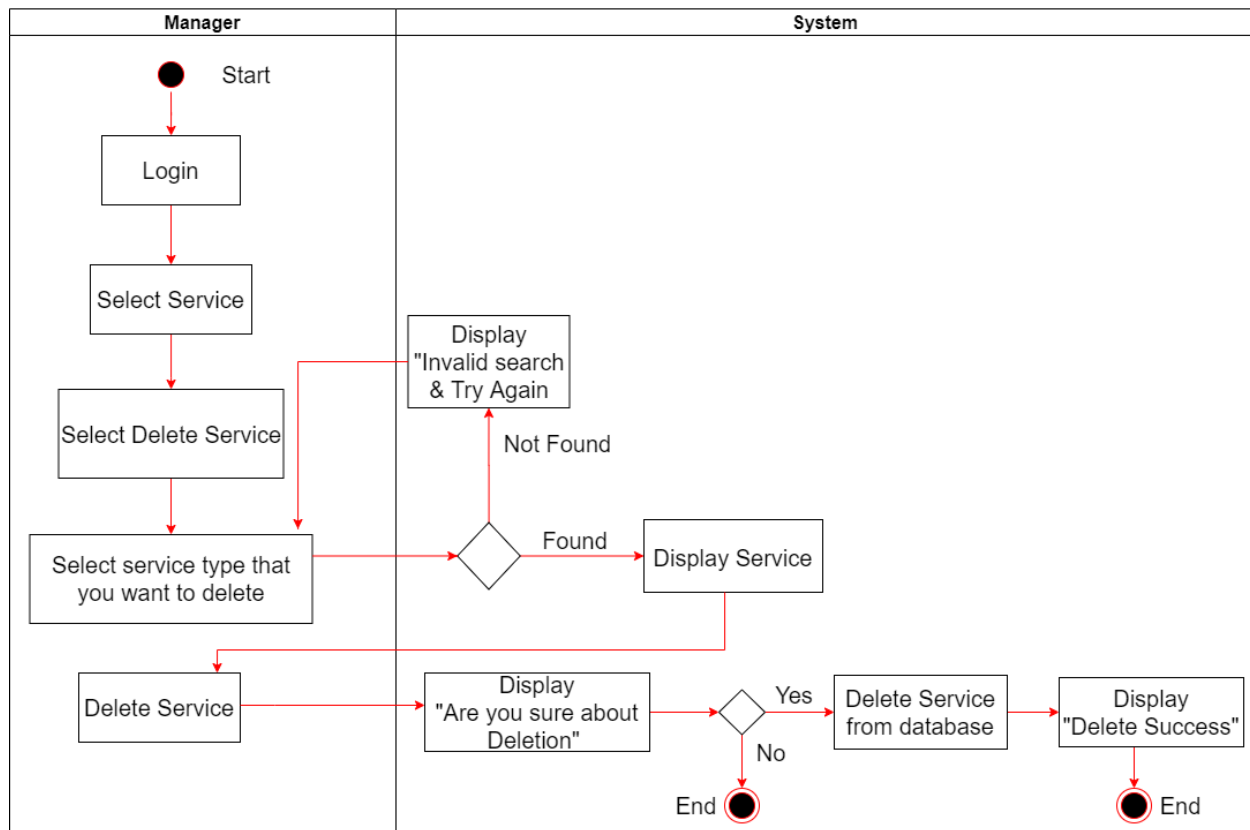
Add Employee Leave – Manager



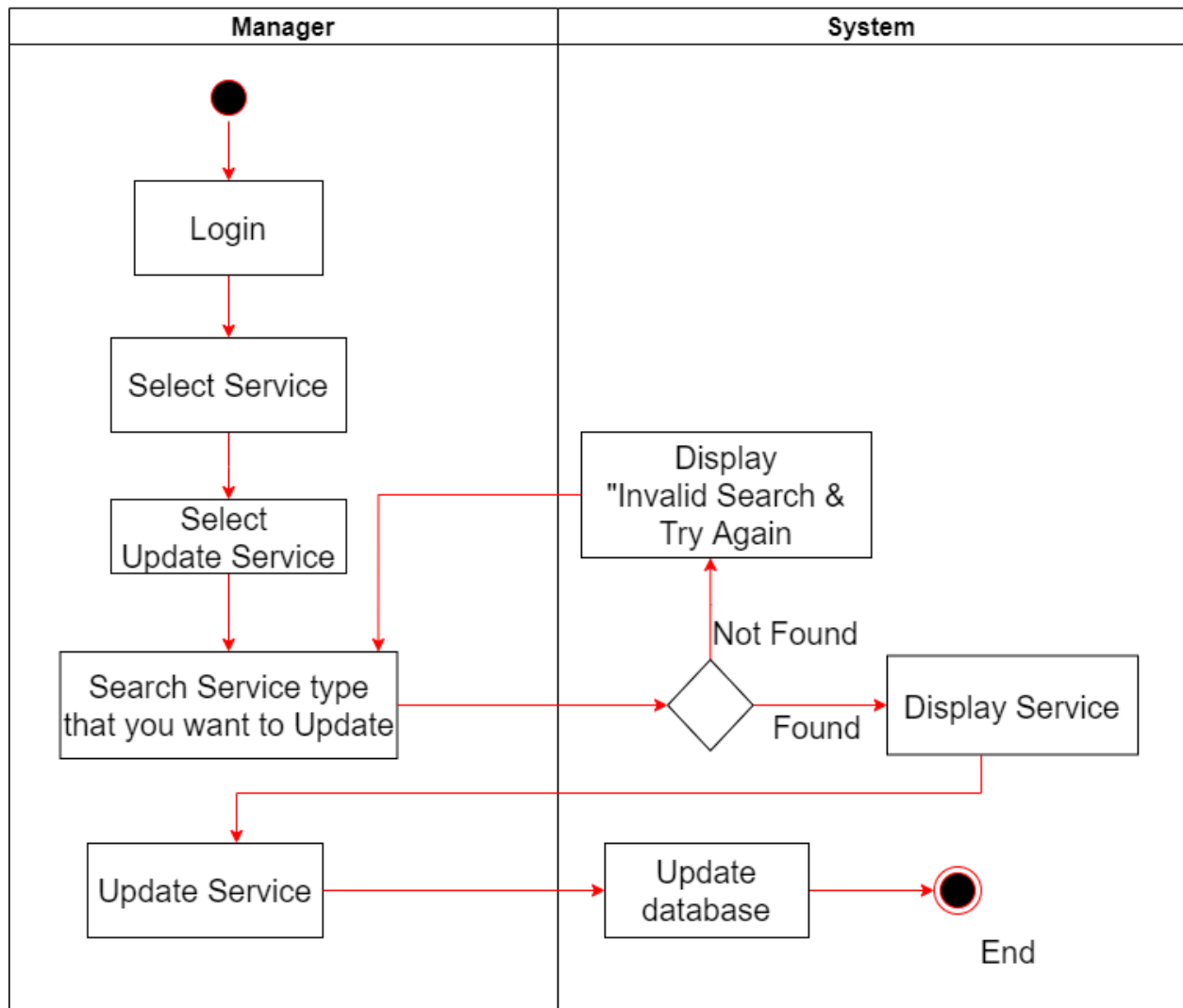
Add Service – Manager



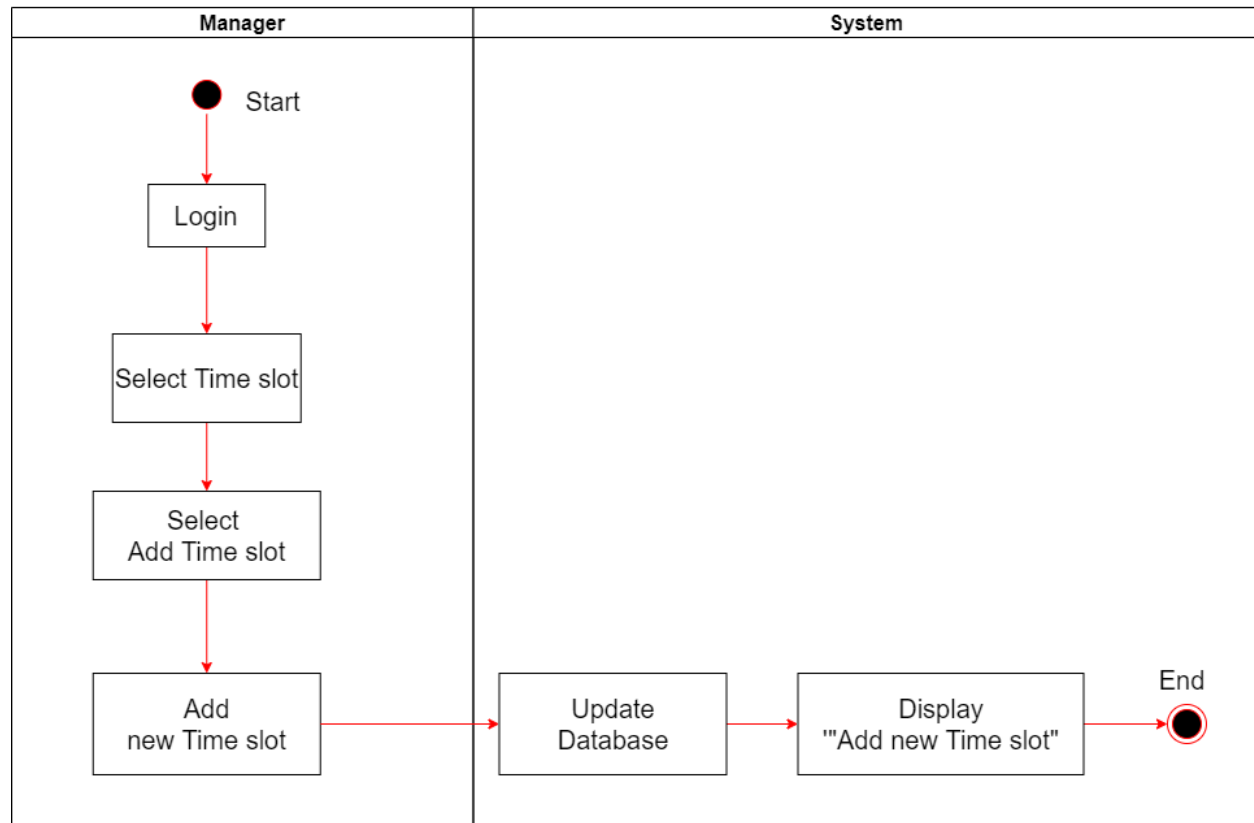
Delete Service – Manager



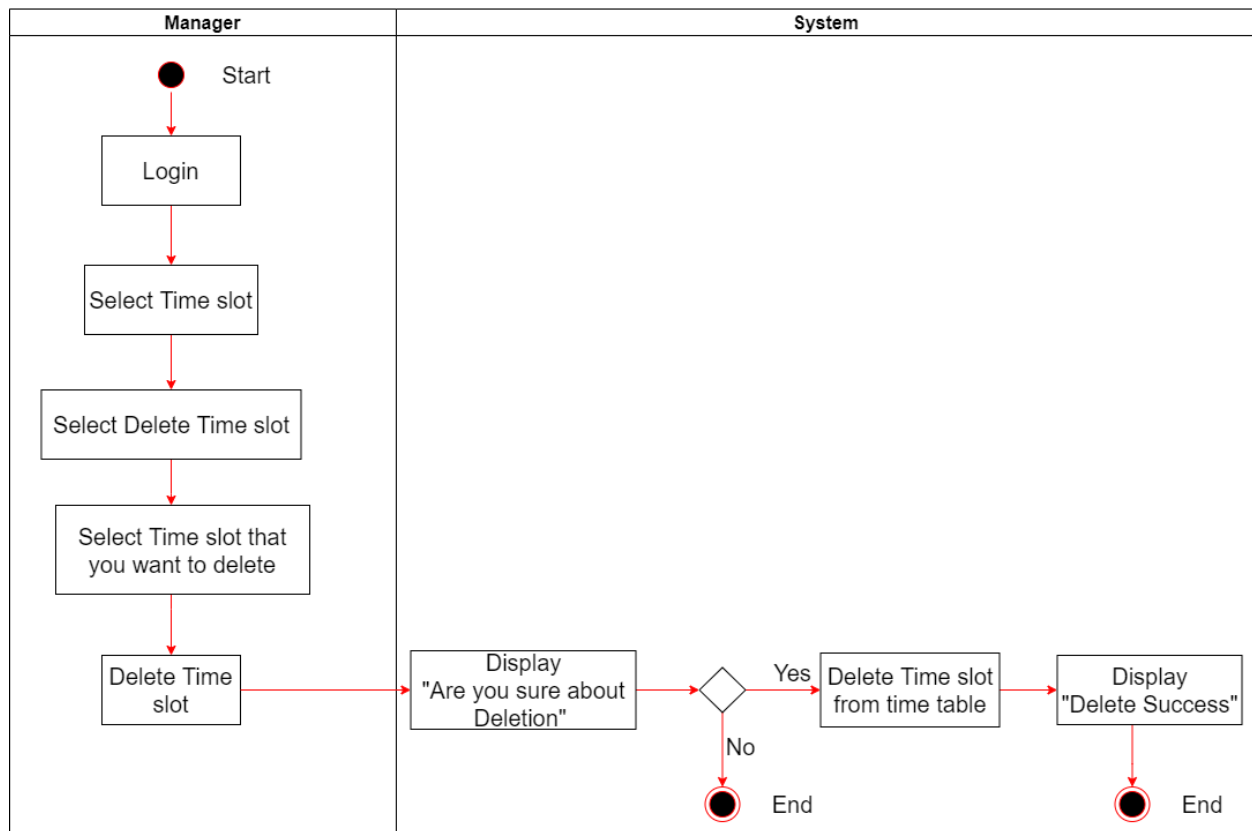
Update Service – Manager



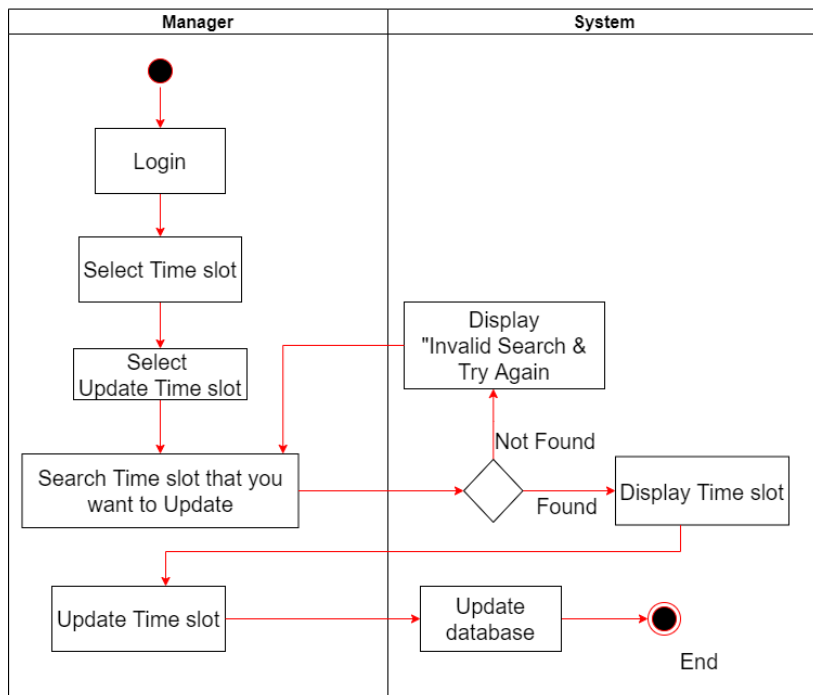
Add Time slot – Manager



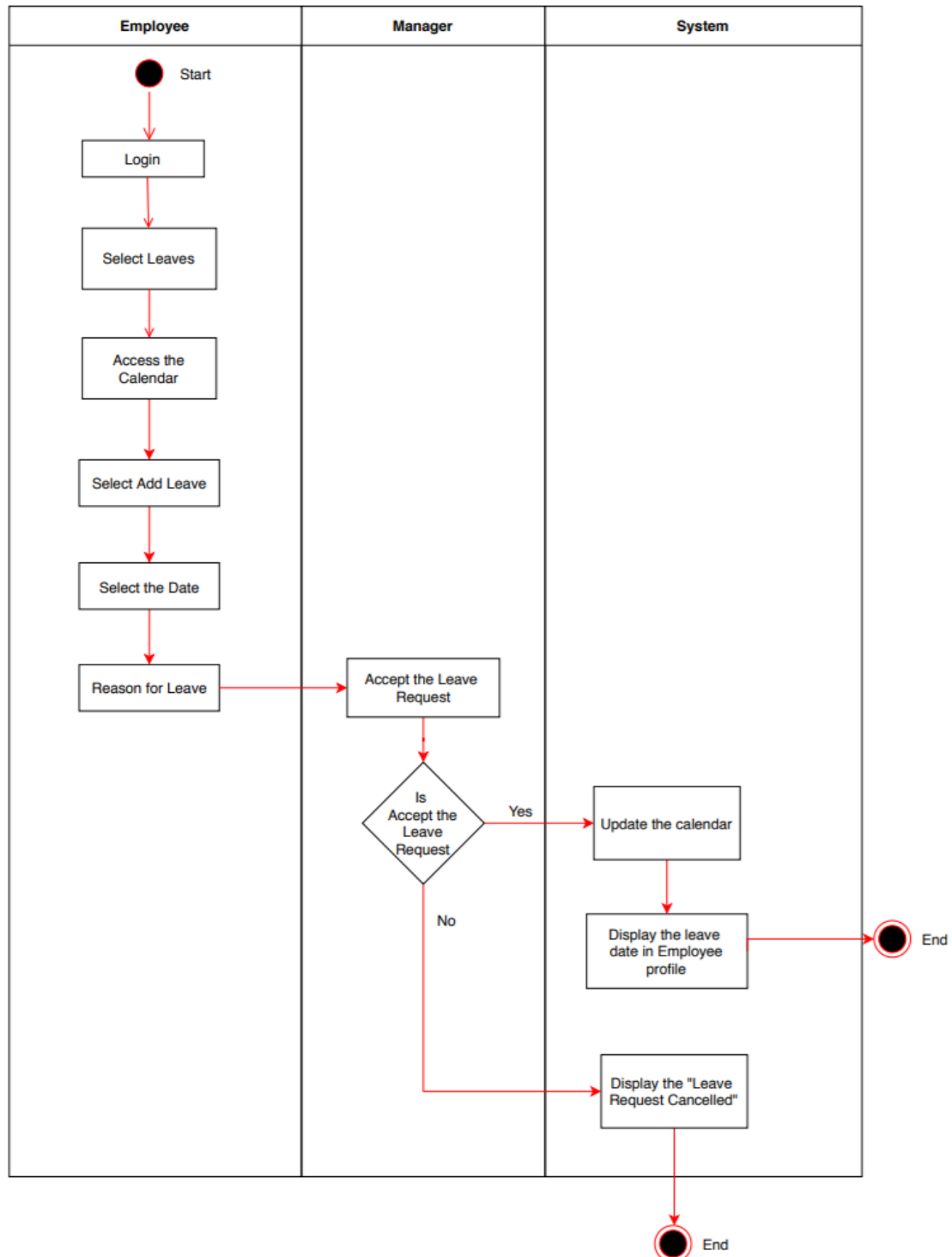
Delete Timeslot – Manager



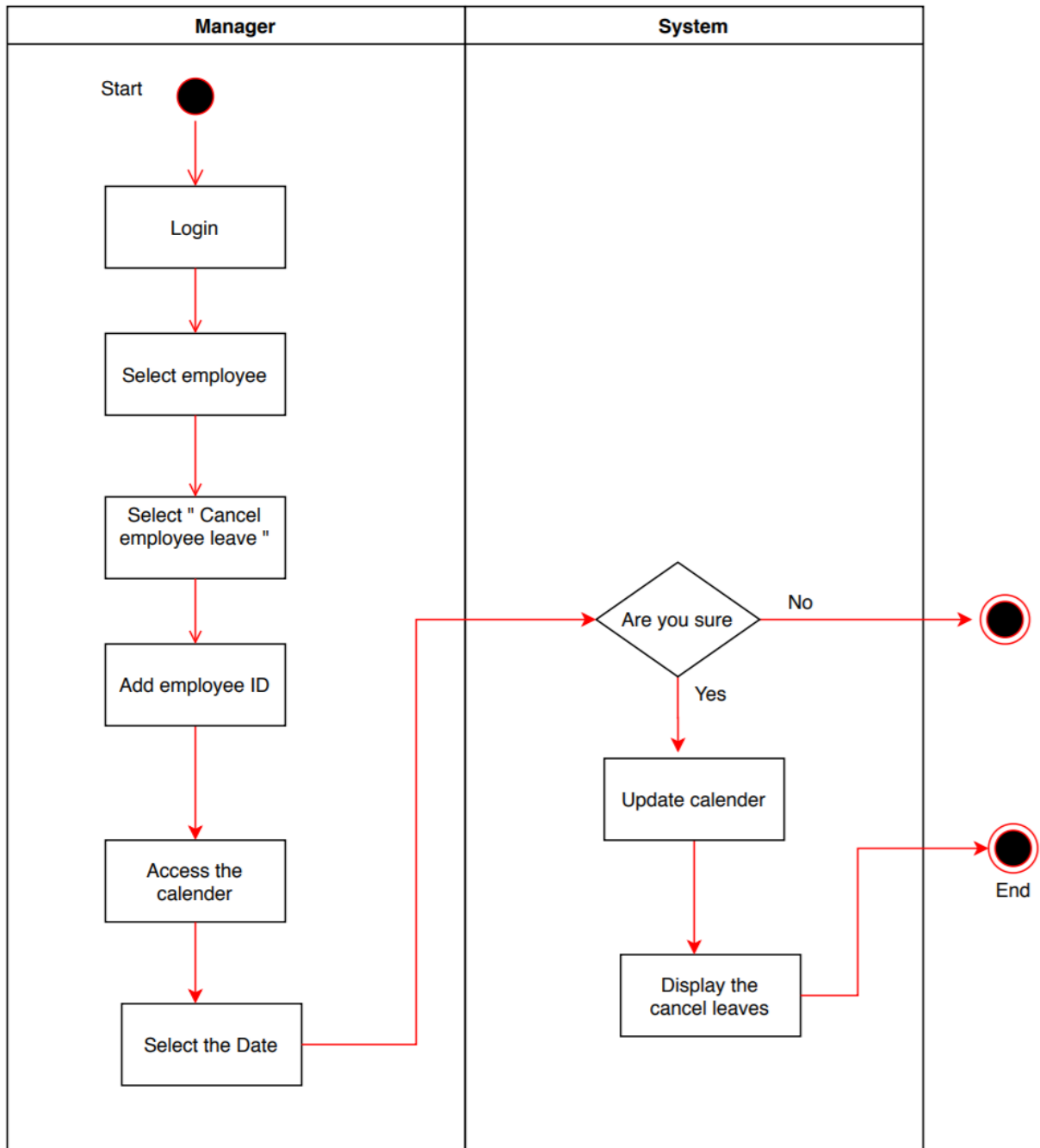
Update Timeslot - Manager



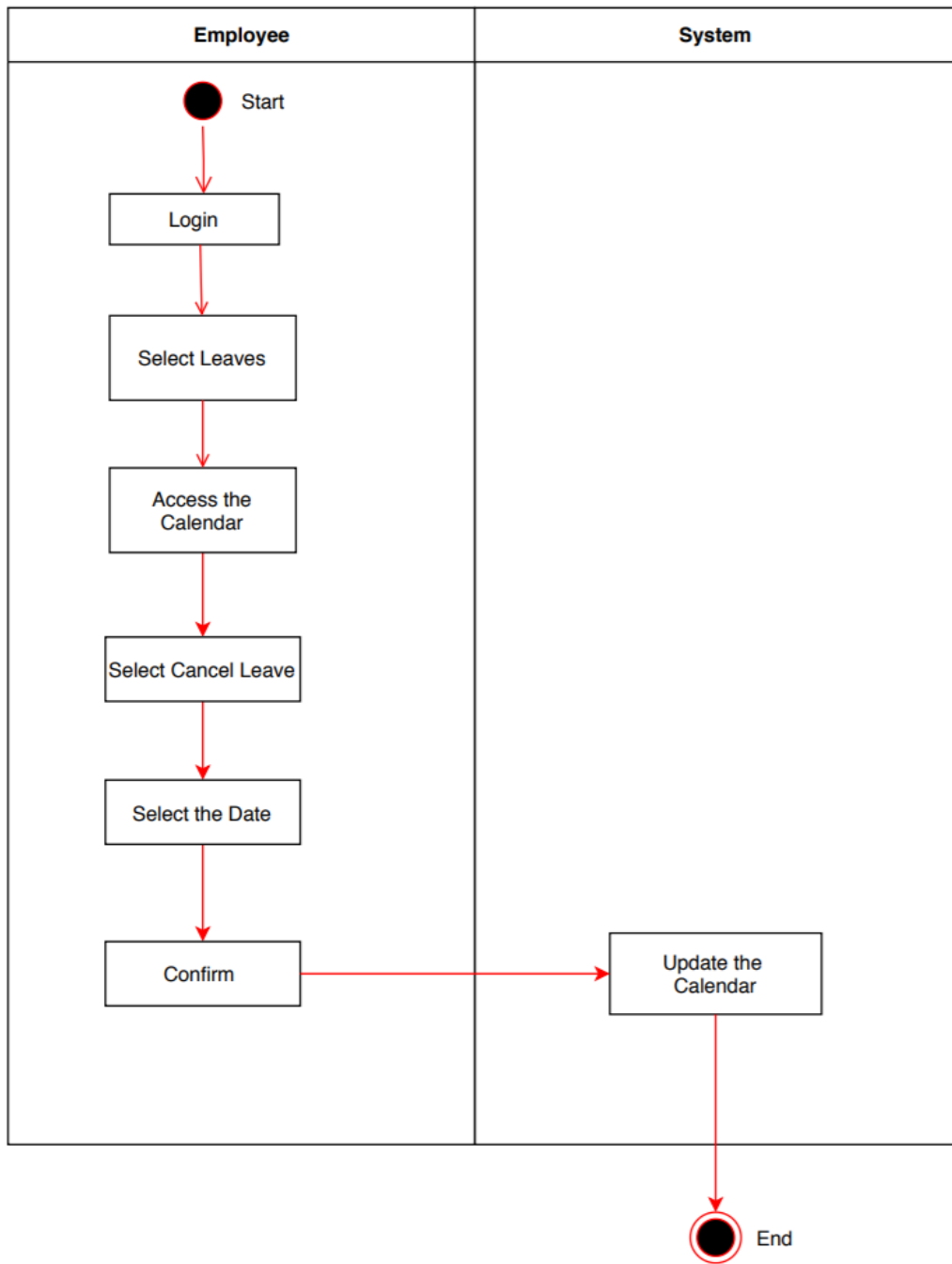
Add Leave – Employee



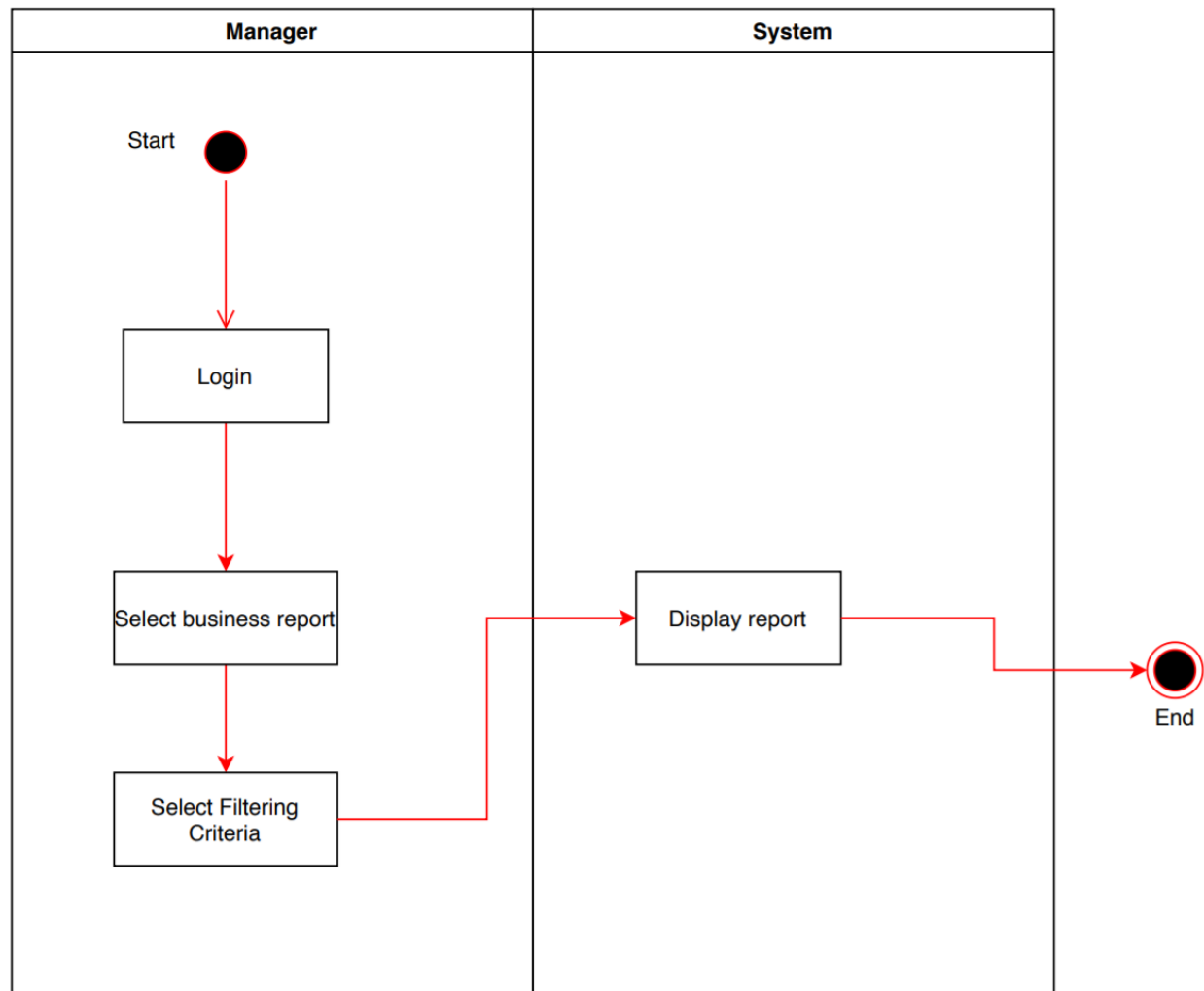
Cancel Leave – Manager



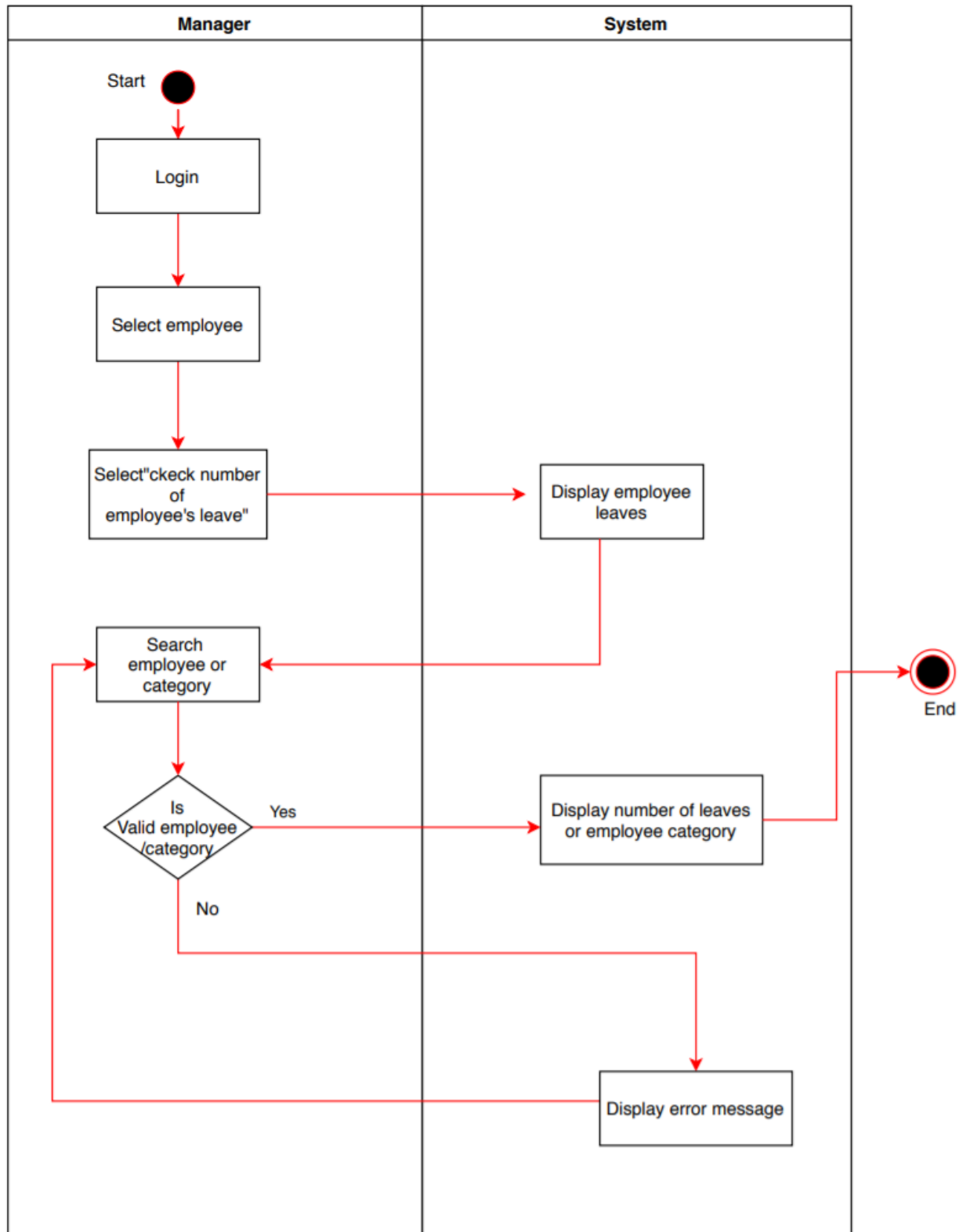
Cancel Leave – Employee



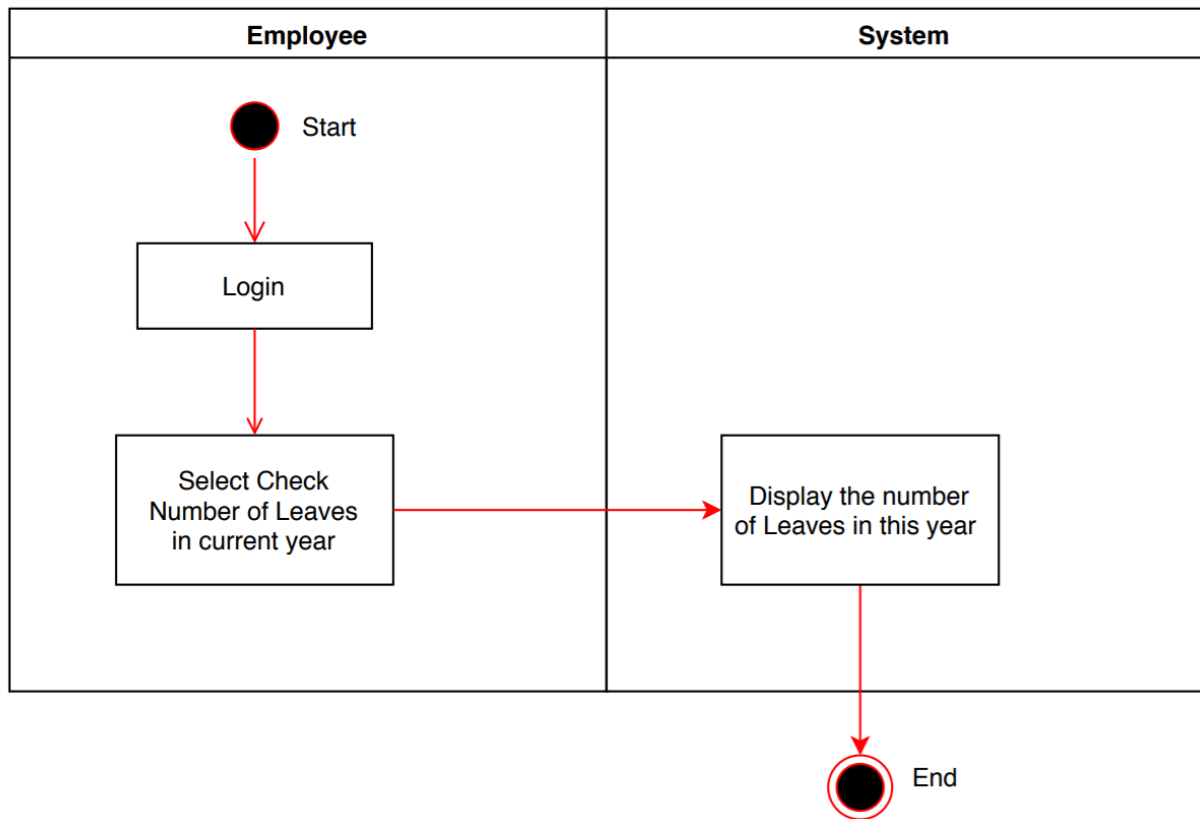
View Business Report – Manager



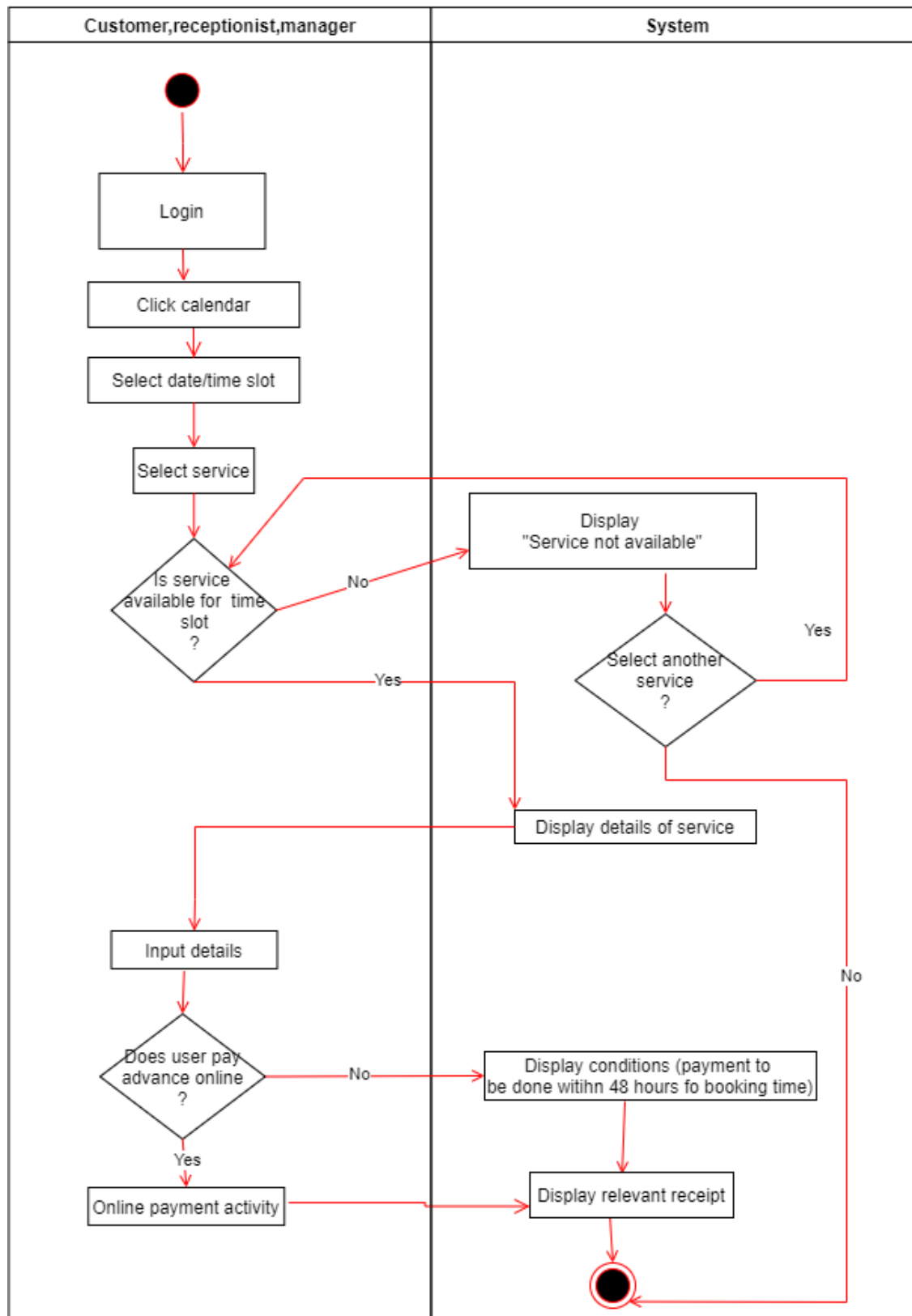
Check the Number of Employee's Leave in Current Year – Manager



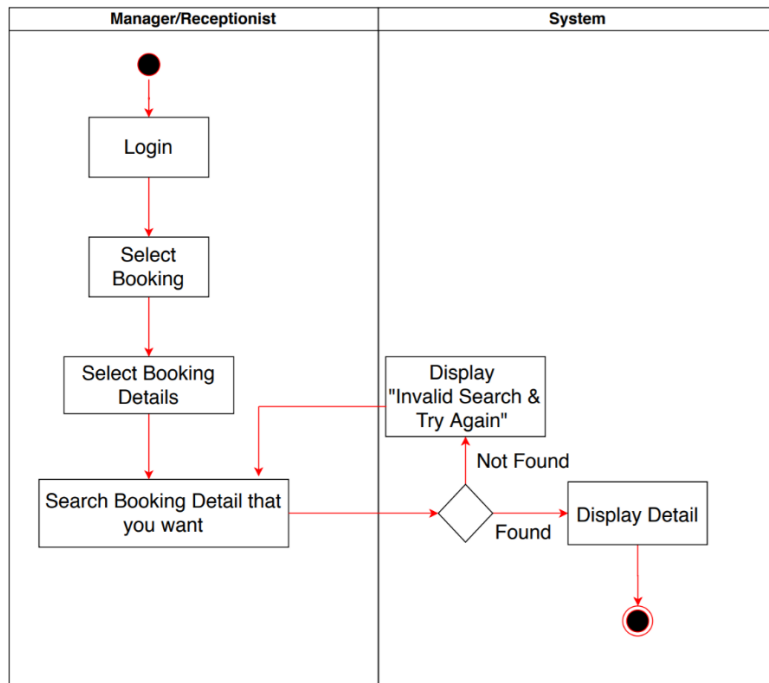
Check Leaves in Current Year – Employee



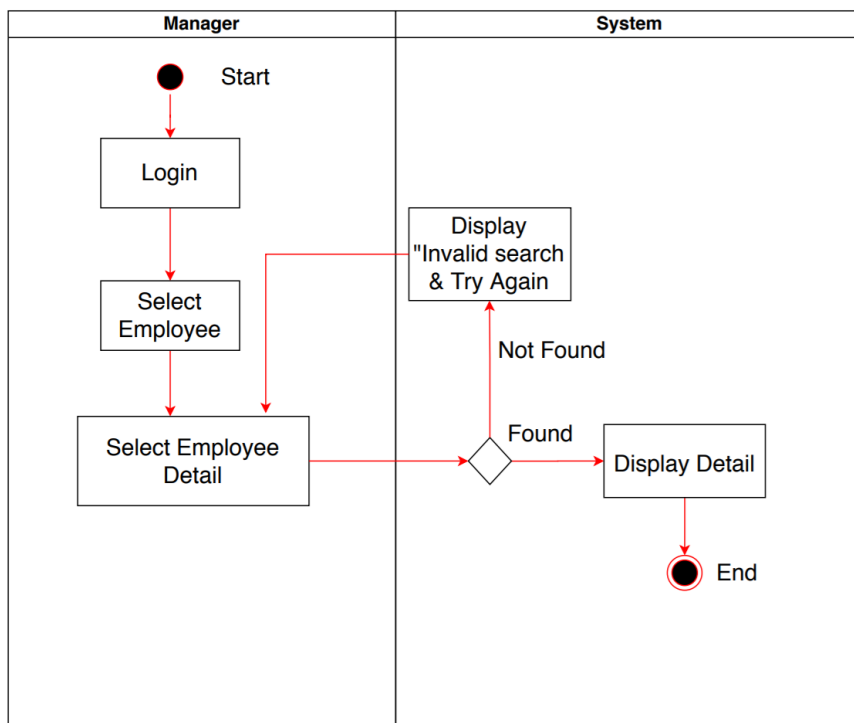
Reserve Booking – Customer, Receptionist, Manager



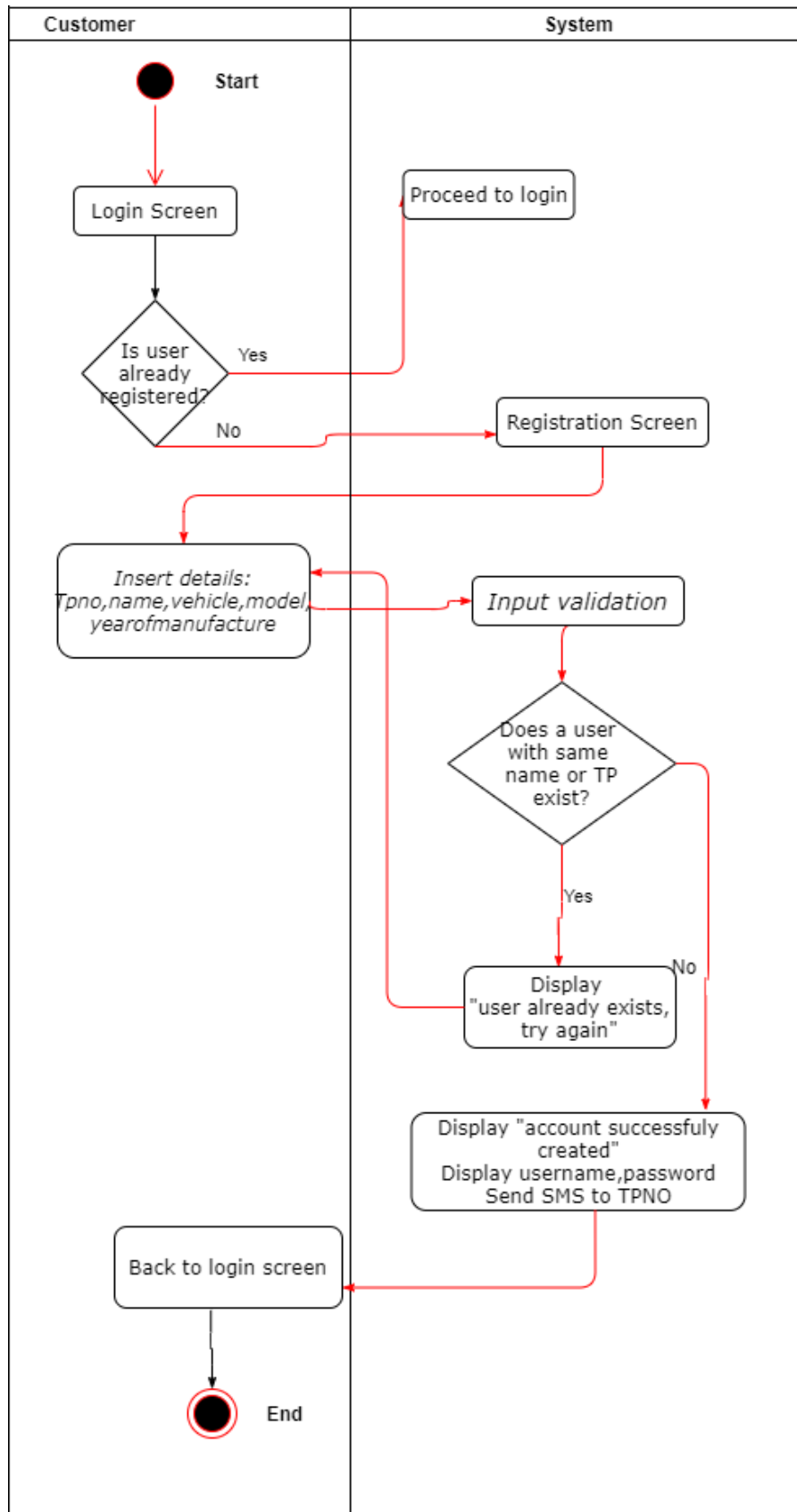
View Booking – Manager, Receptionist



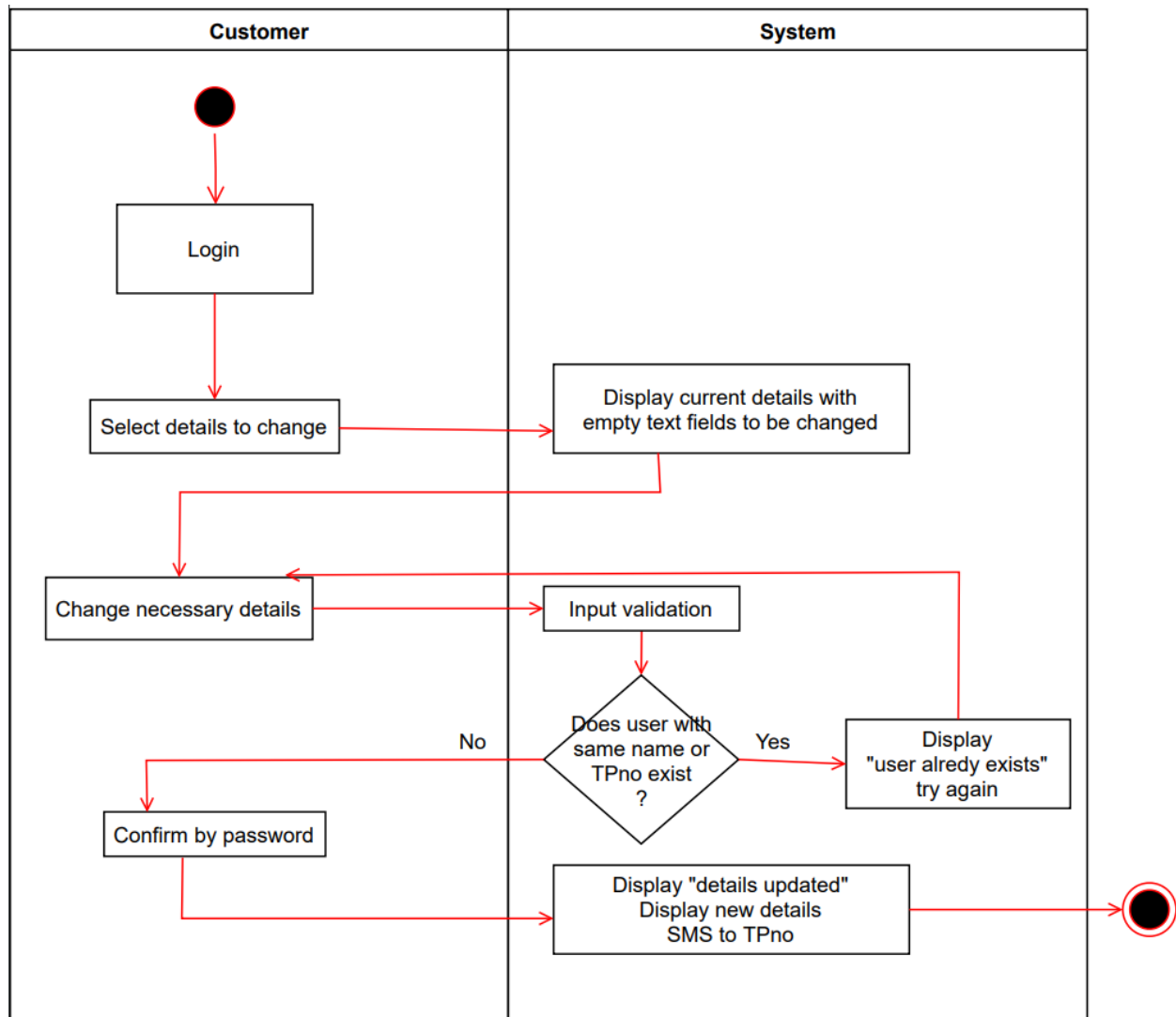
View Employee – Manager, Receptionist



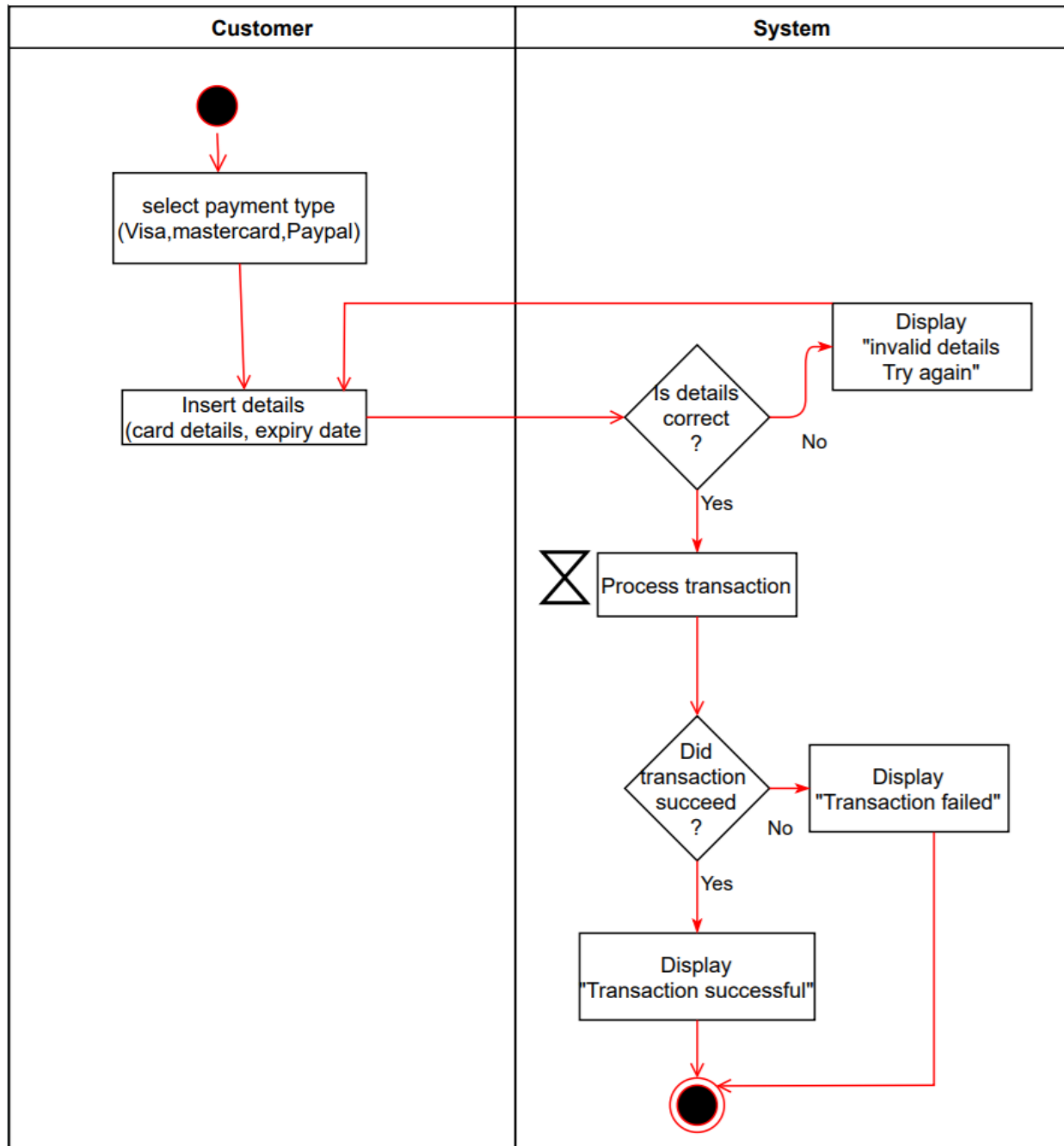
Register – Customer



Update Profile – Customer

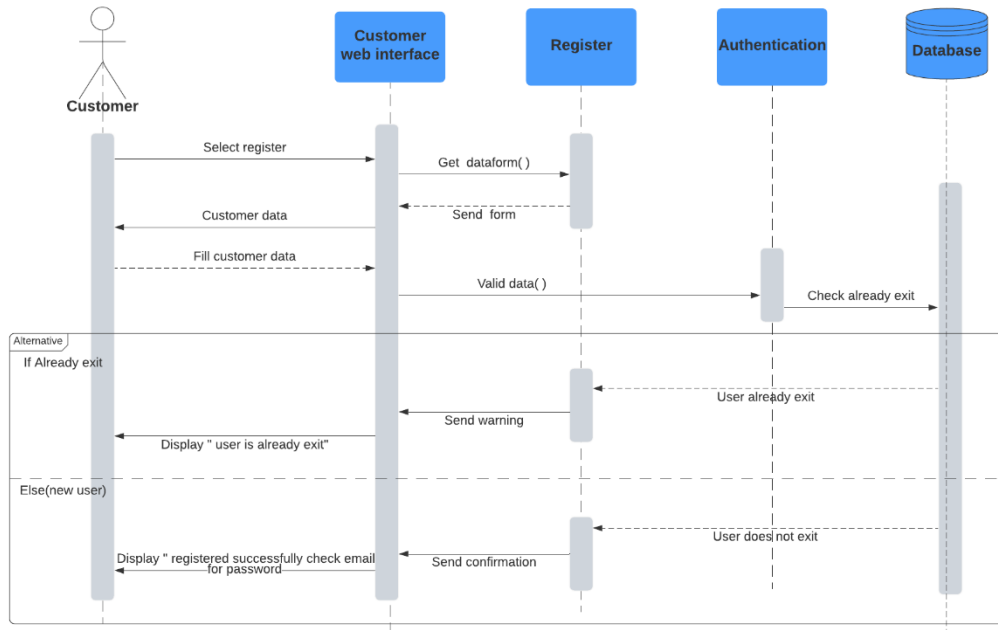


Online Advance Payment – Customer

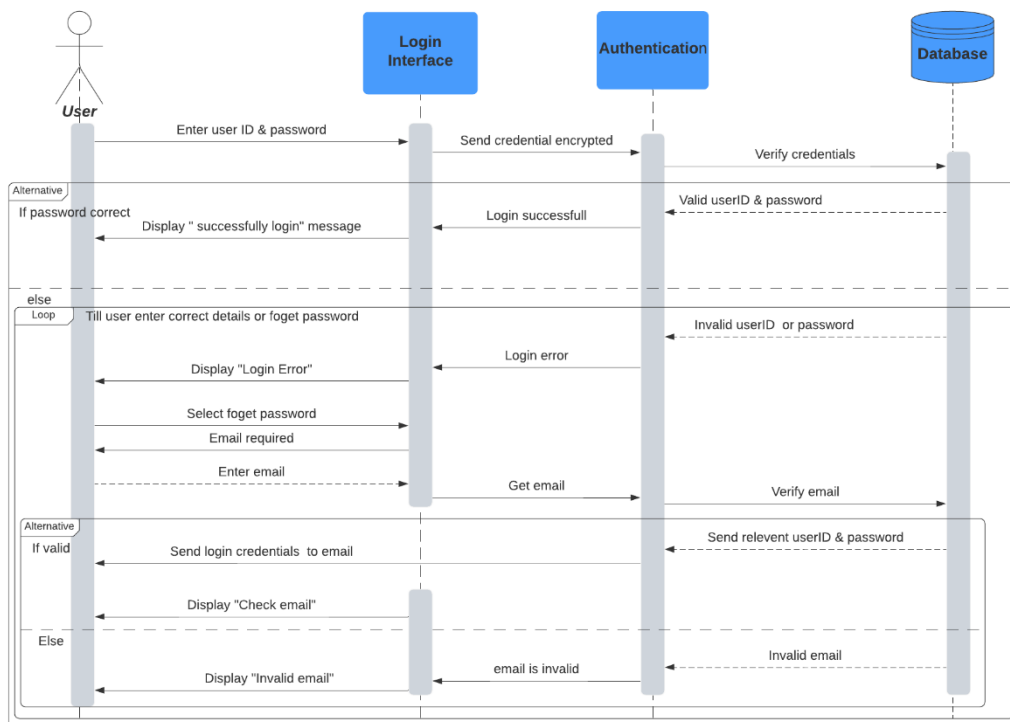


Sequence Diagrams

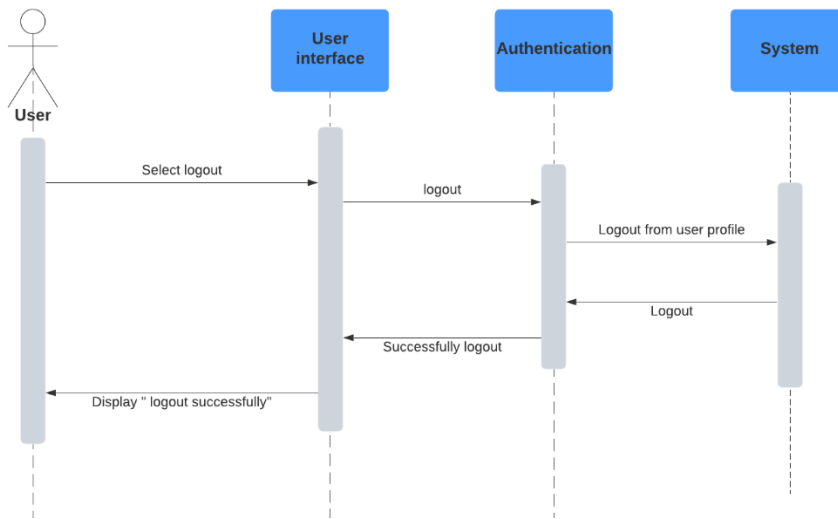
Register



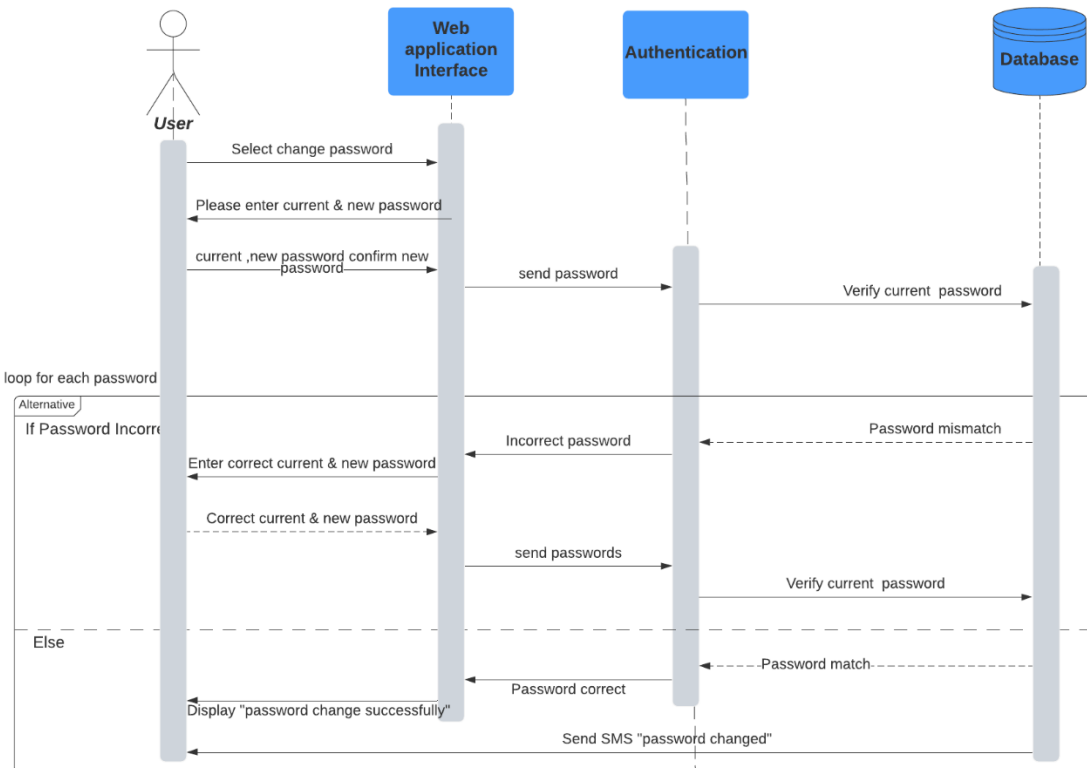
Login



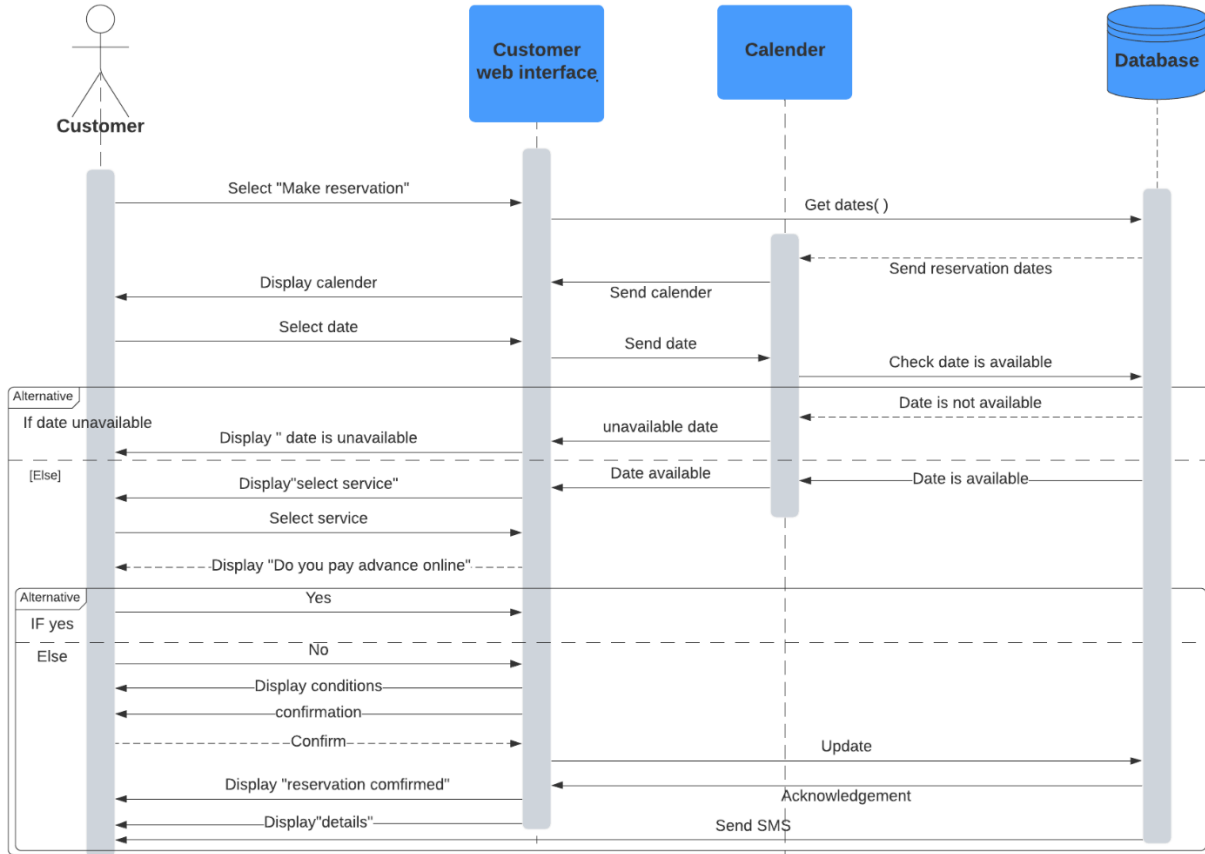
Logout



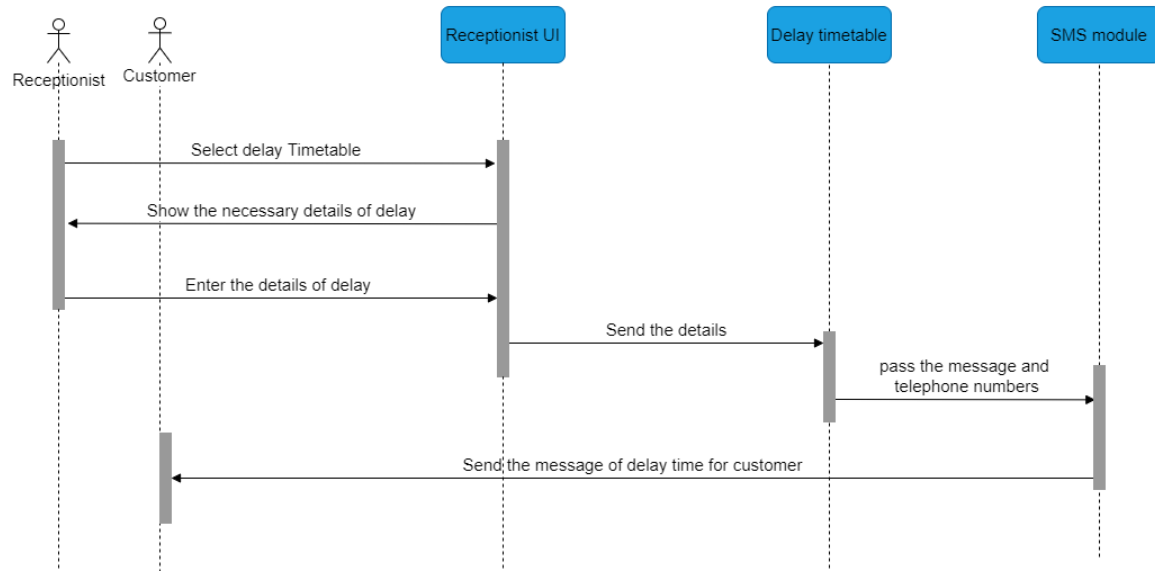
Change Login Password



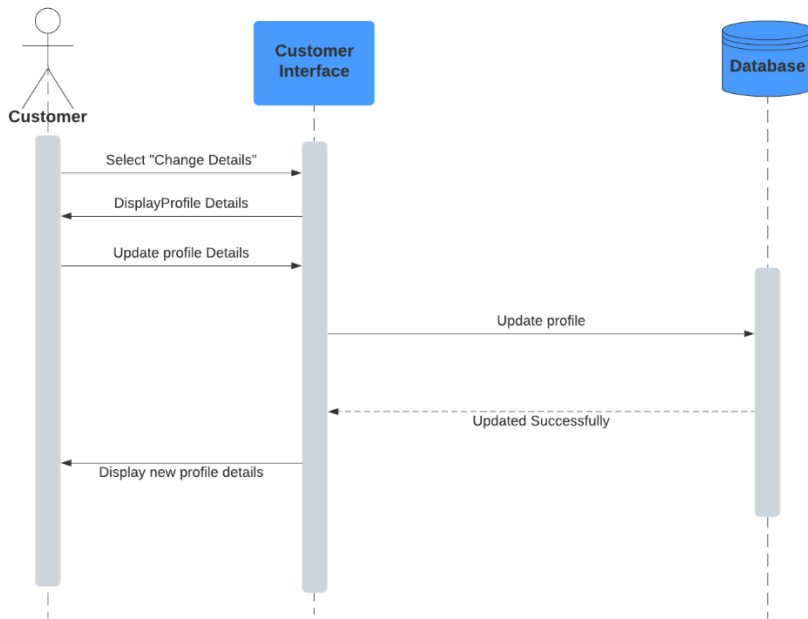
Make reservation



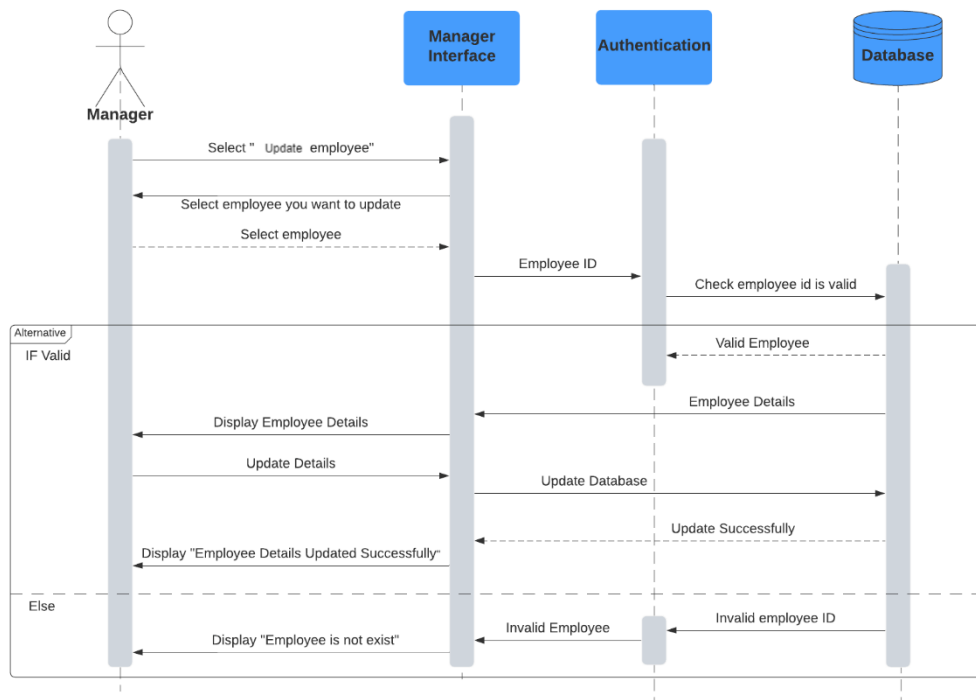
Delay Timetable



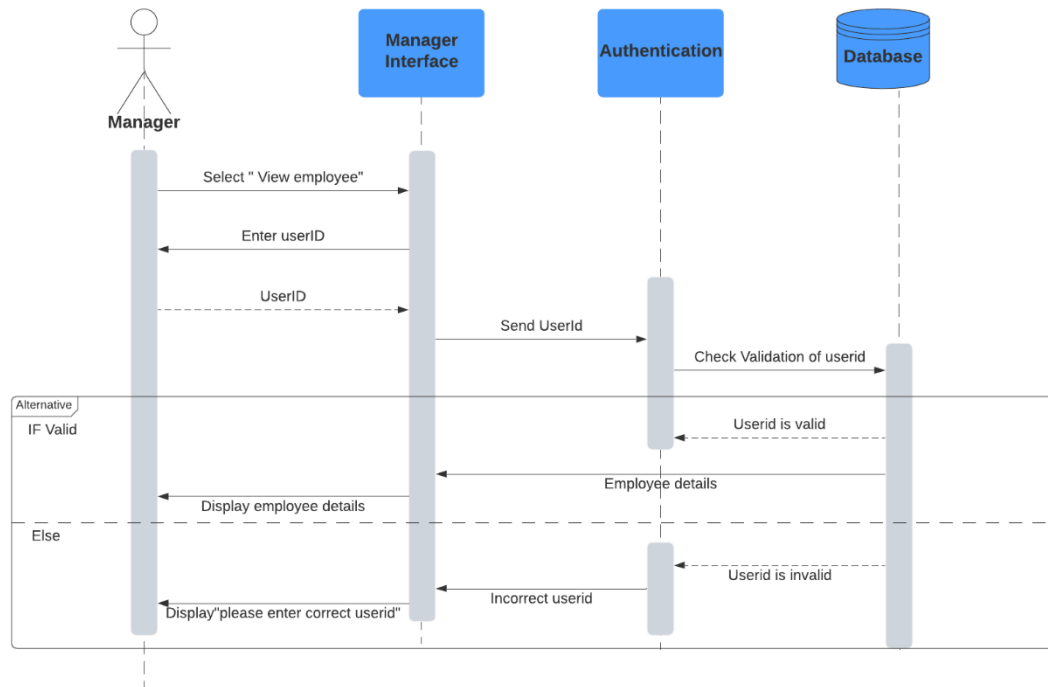
Update Profile



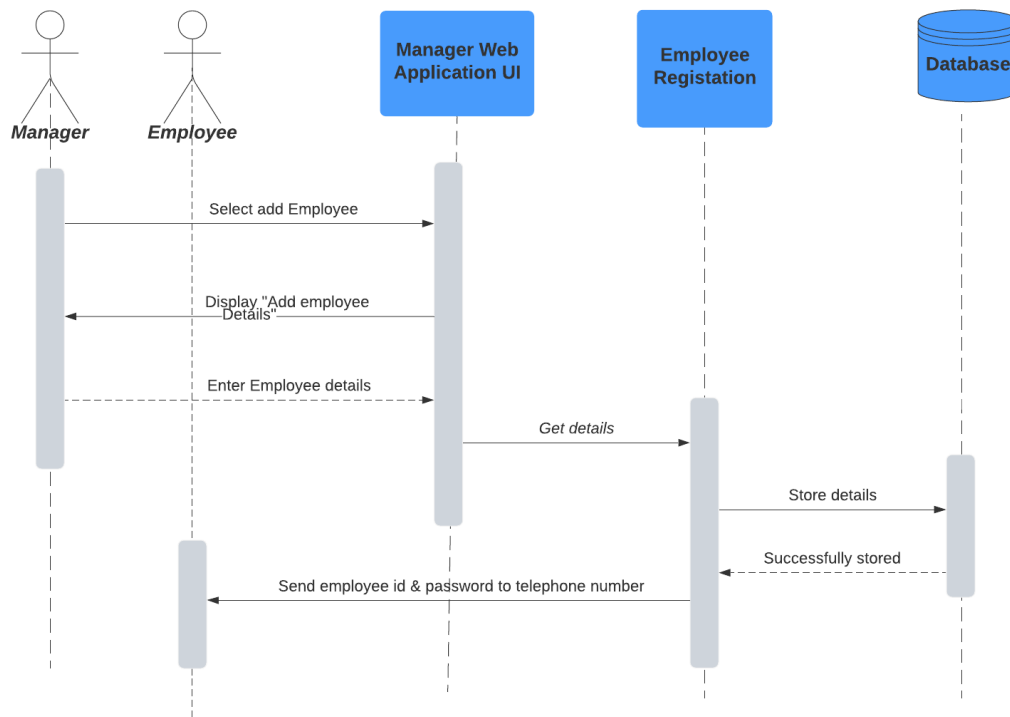
Update Employee



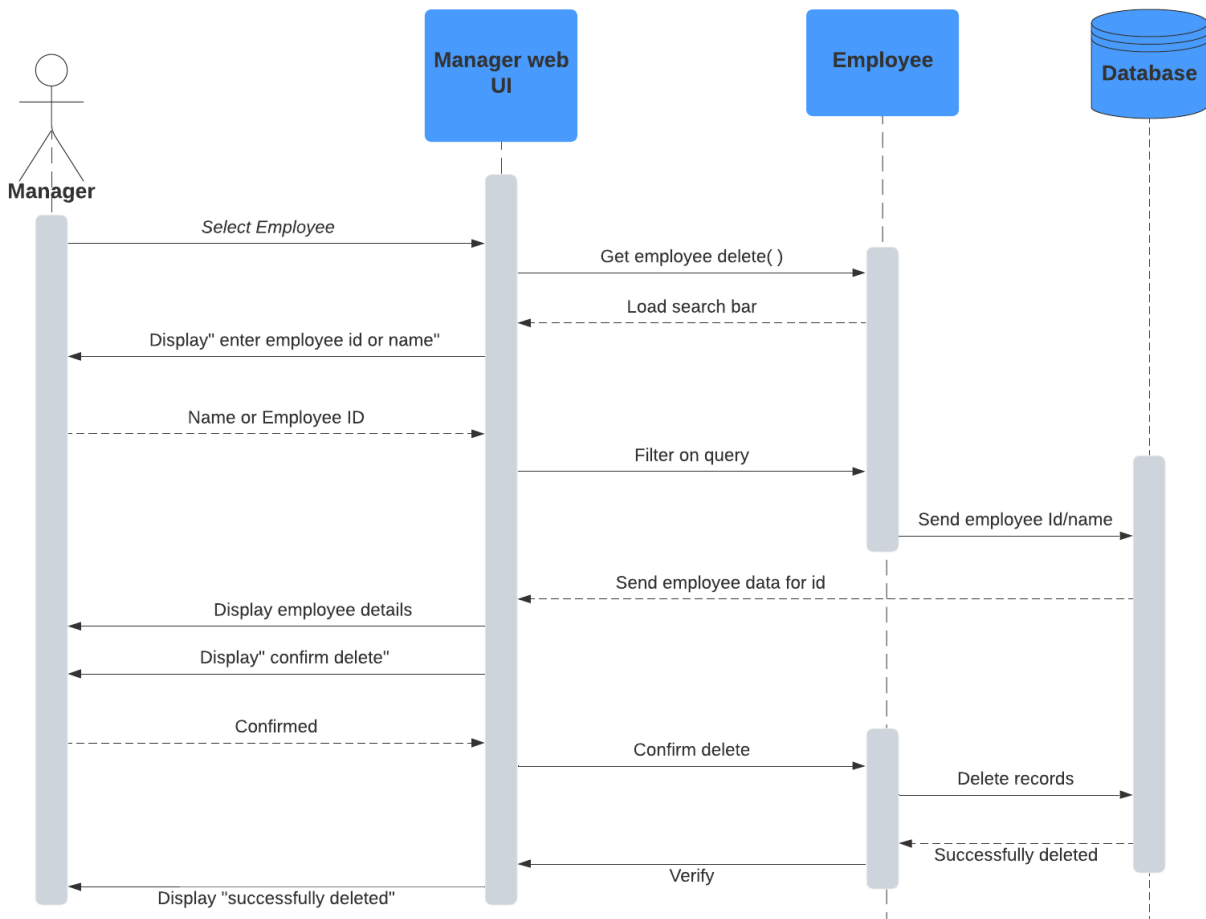
View Employee



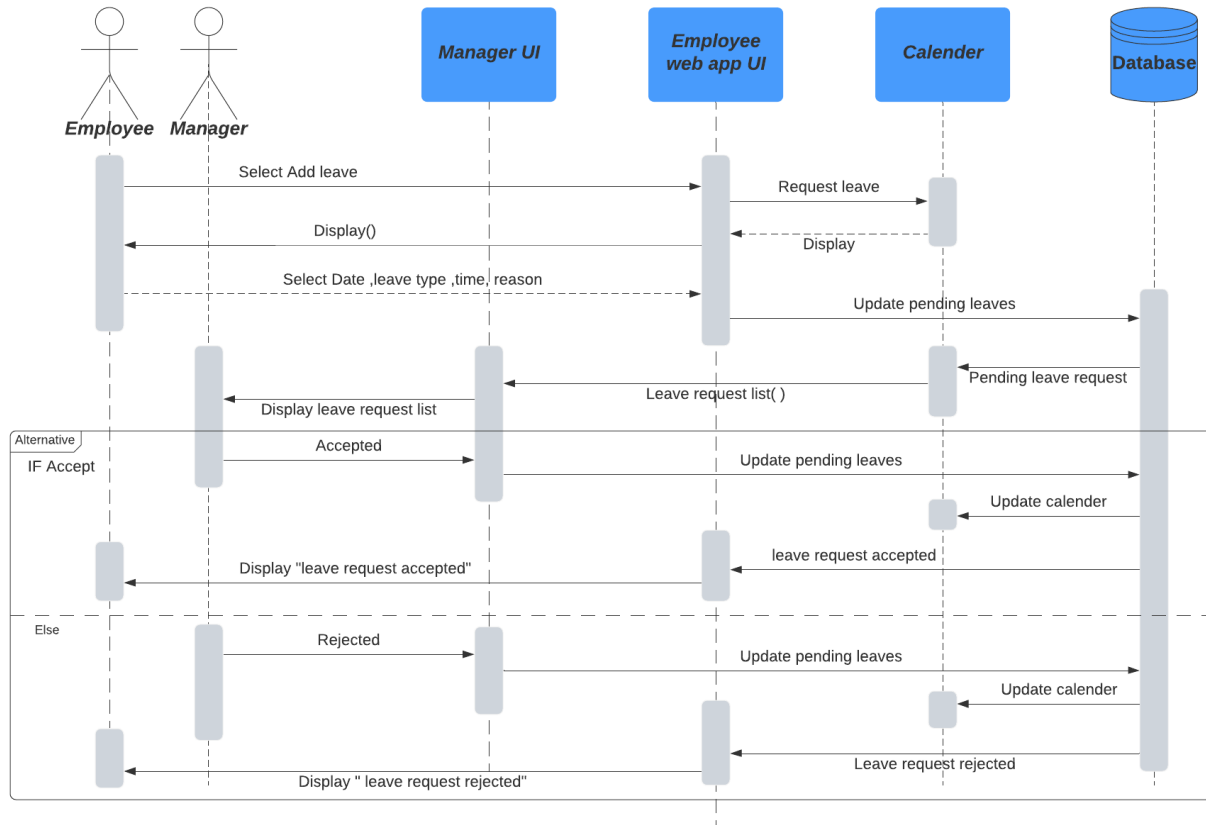
Add New Employee



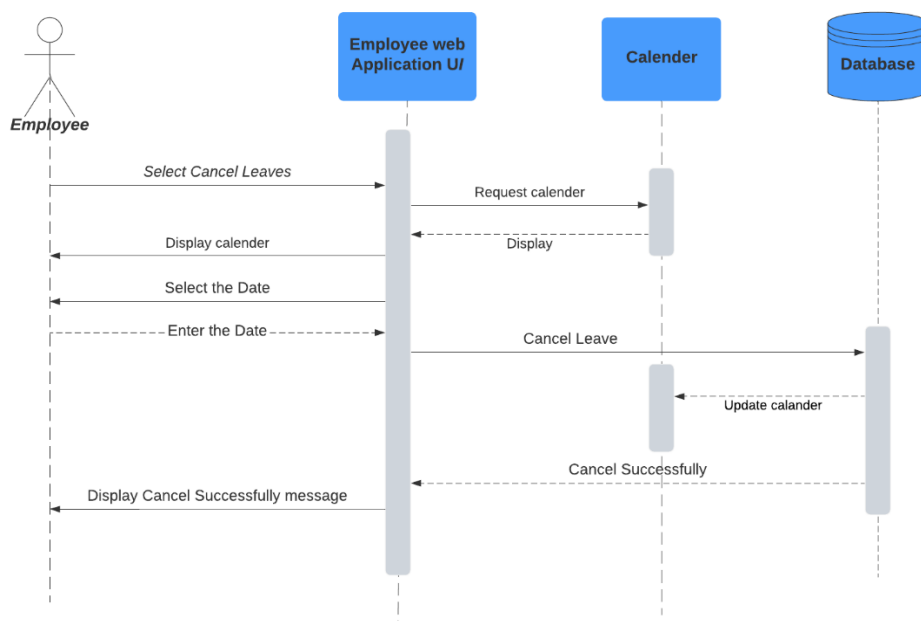
Delete Employee



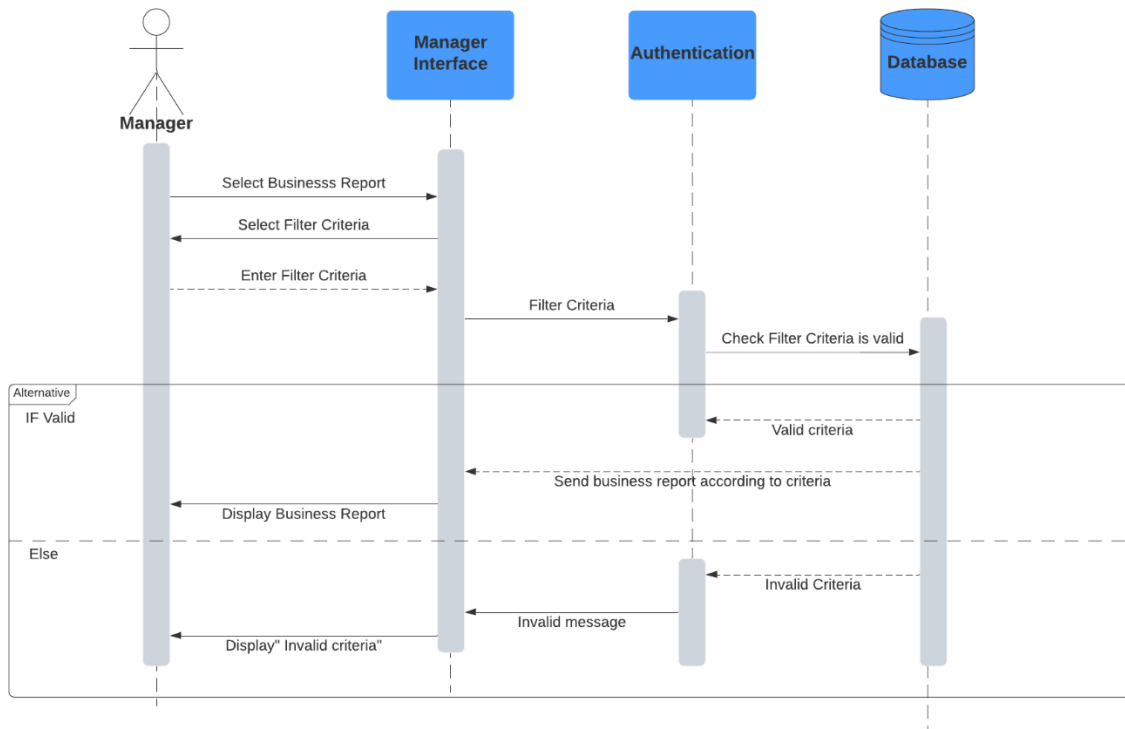
Add Leaves



Cancel Leaves

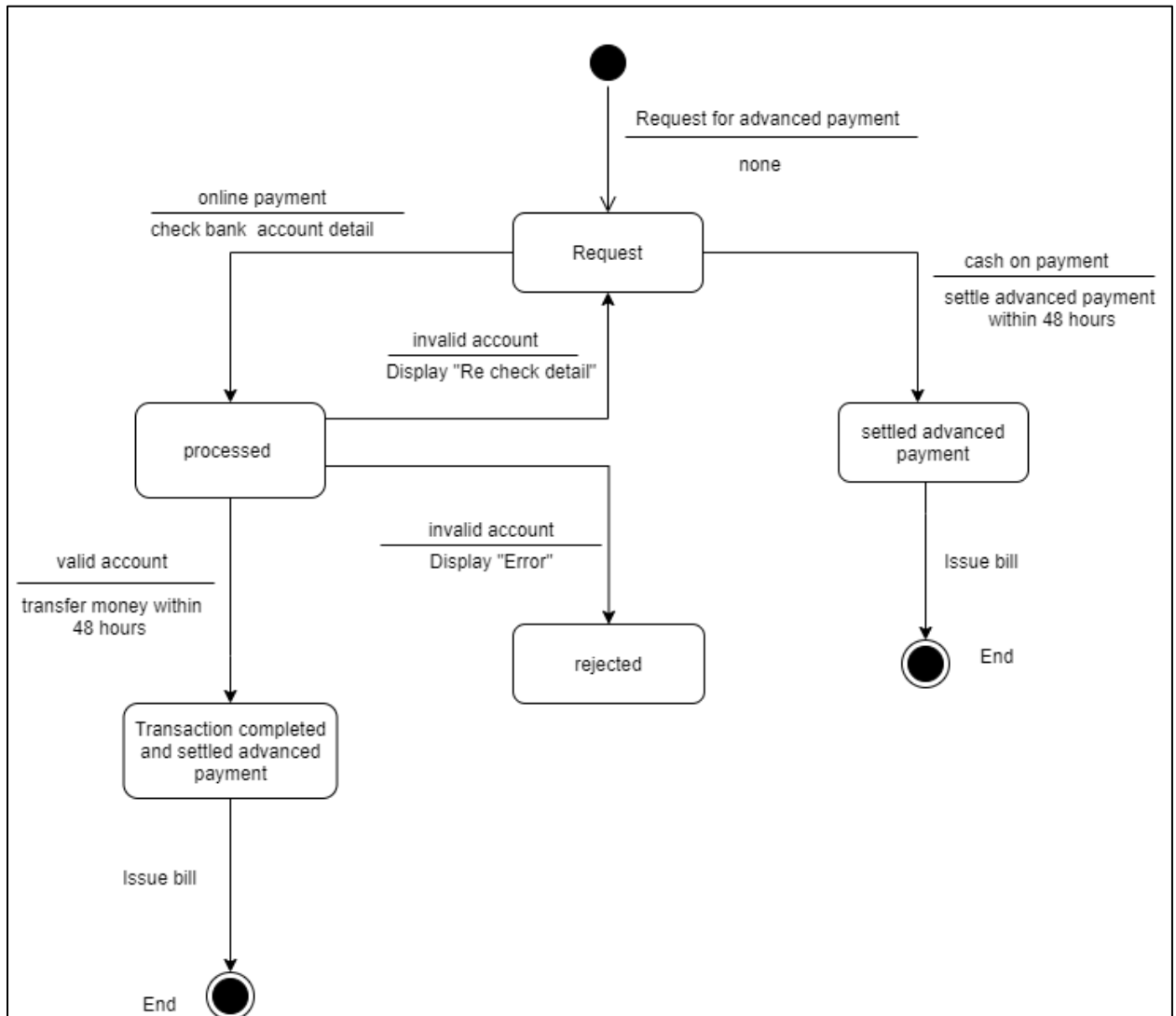


View Business Report

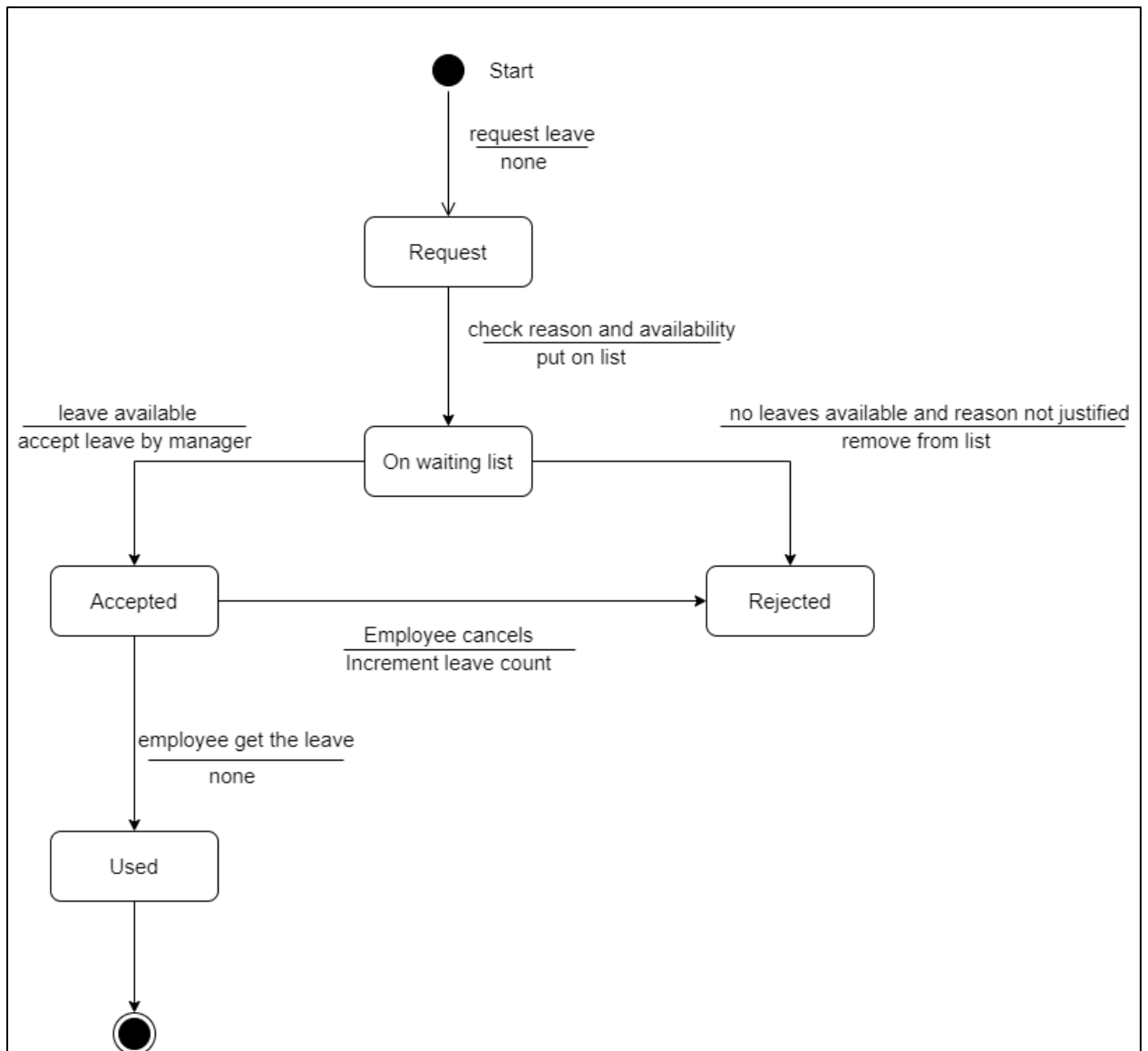


State Machine Diagrams

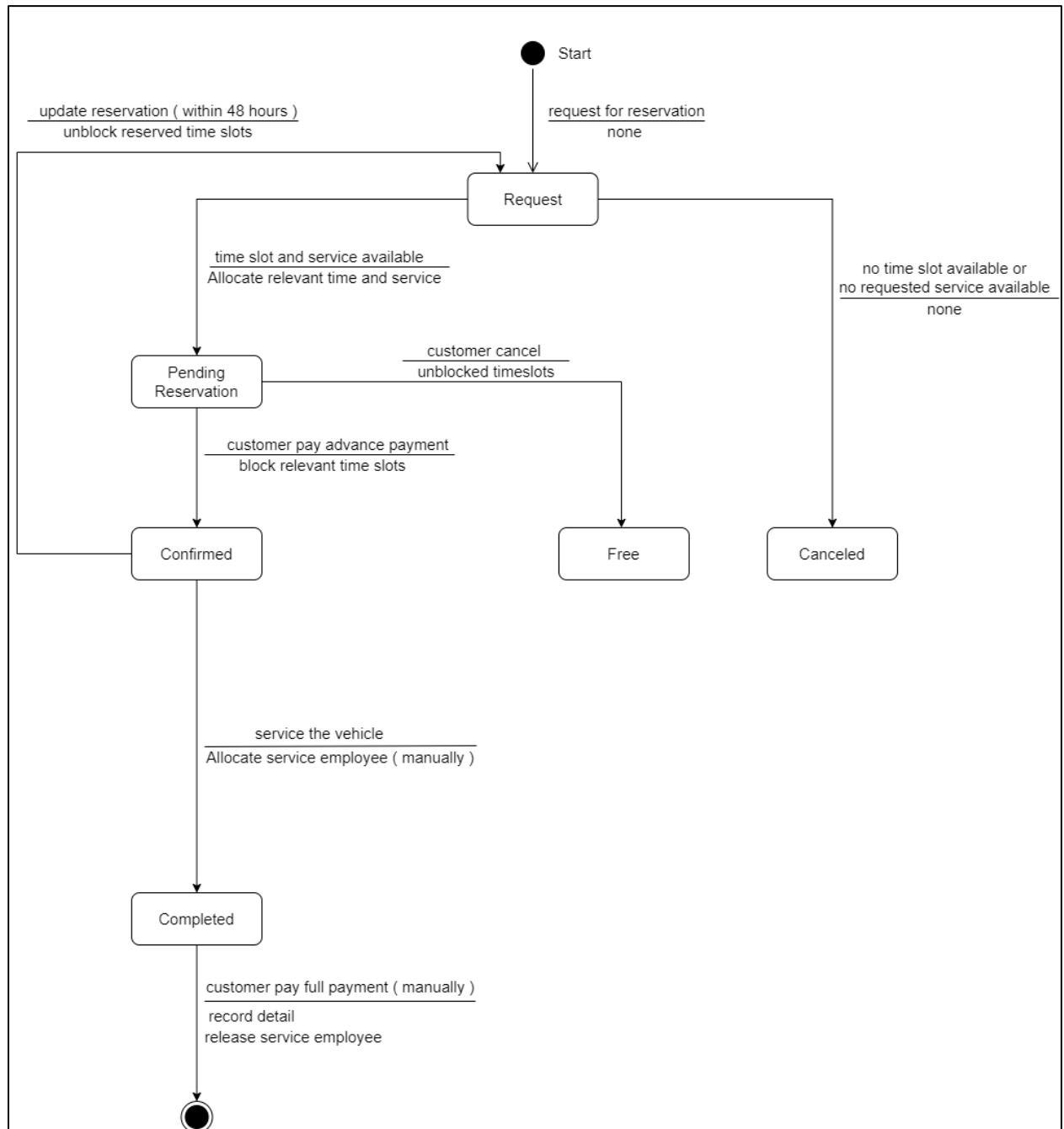
Advanced Payment Method:

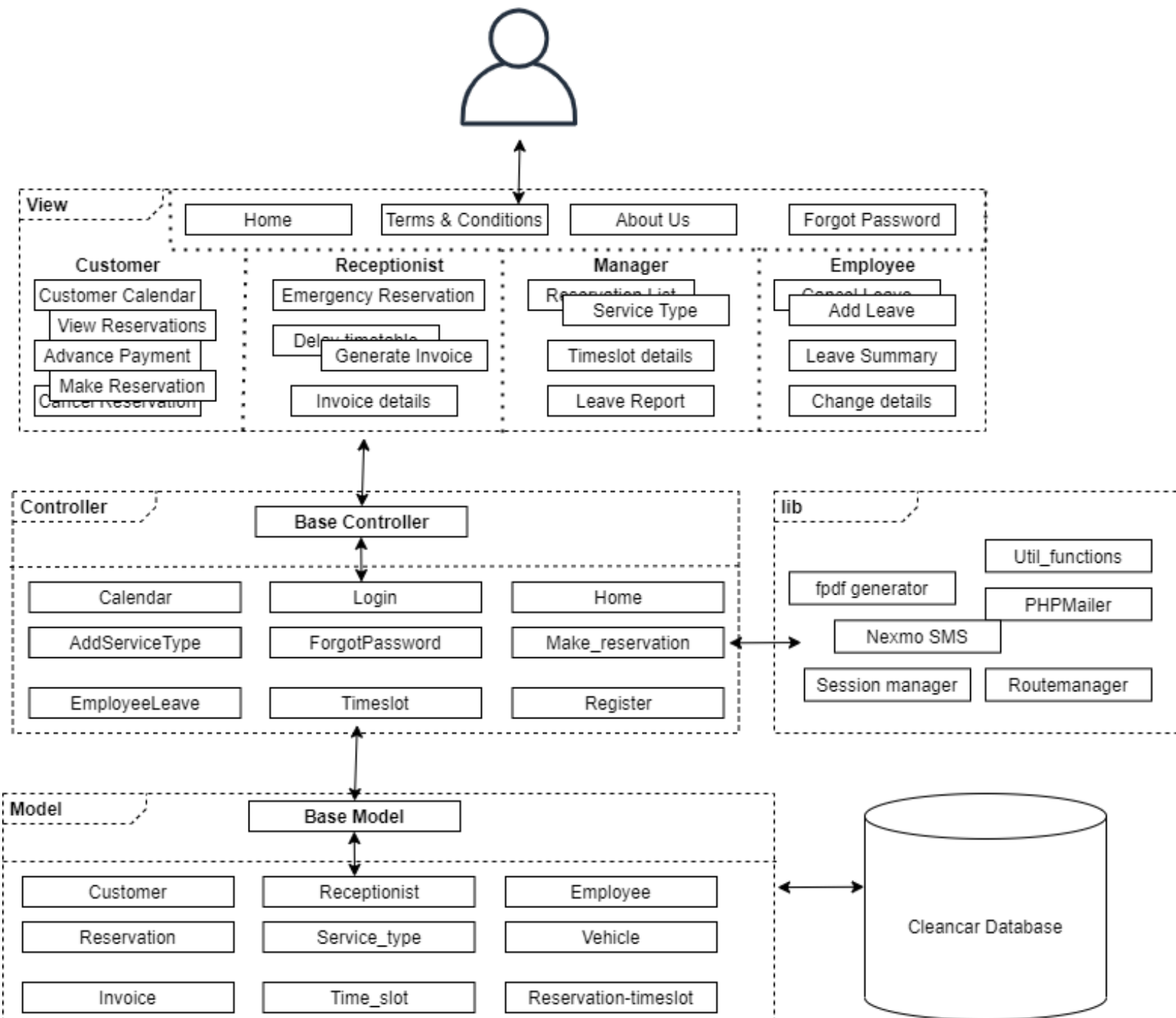


Request Leave



Reservation Method



¹System Architecture Diagram:¹ There are more views than the number of views mentioned here

Individual Contributions:

U.W.T.O Weerasinghe

Student ID : **18001912**

Student Name: **U.W.T. O Weerasinghe**

Group ID : **CS 37**

Group Name: **CleanCar**

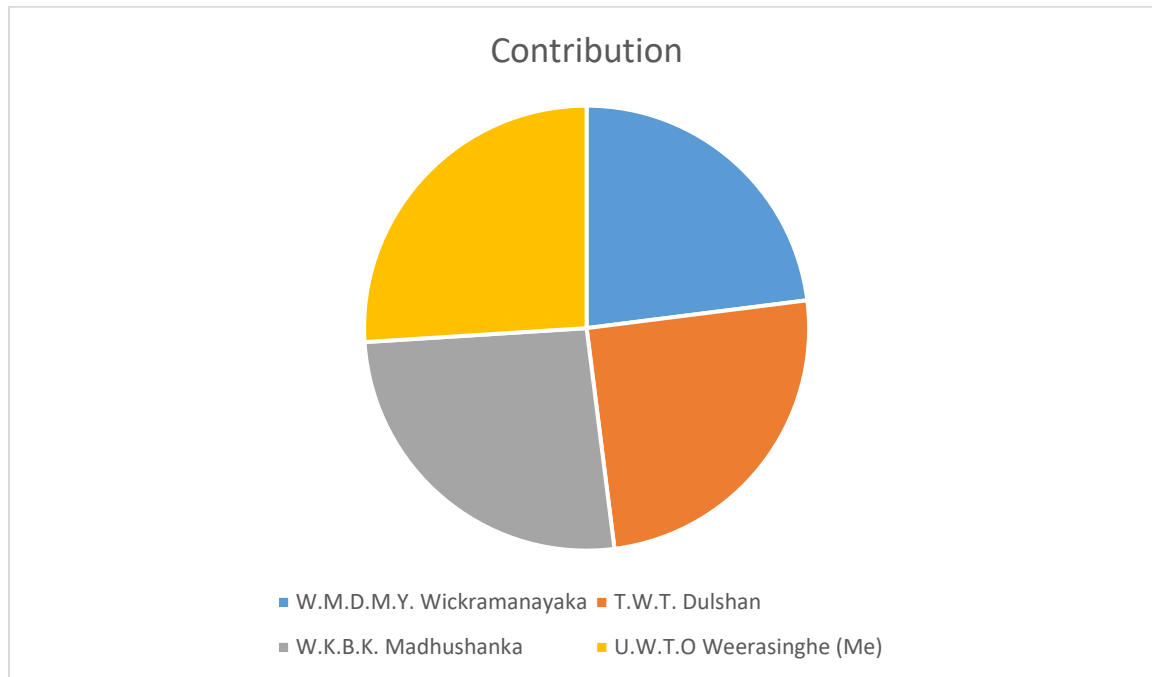
Name of the component (s):

1. All customer functionalities:
 - Sign Up
 - Customer Calendar
 - Make Reservation
 - Cancel Reservation
2. Integration of PHPMailer
3. Session Management
4. Route and htaccess redirection
5. Query Builder in Model.

Description of the component(s)

1. Customer Functionalities:
 - All customer views, authentication etc. including the CRUD operations for adding customers along with their vehicles.
 - Allowing them to make a reservation by picking a timeslot and a date from a dynamically generated JS table as a calendar and make the reservation by passing variables to the database through PHP
 - From the View Reservation, Customer can cancel the relevant reservation by a single button click.
2. This library is used to send email notifications for customers and employees
3. Sessions were used to transport sensitive variables and to timeout users. Only the relevant user can access his/her views otherwise will be redirected to 403 page.
4. To prevent SQL injection attacks and browser redirection .htaccess modification was done.
5. Similar to the query functions in frameworks such as Laravel and CodeIgniter functions for SQL SELECT, DELETE, INSERT etc.) were implemented using SQL string concatenation and other methods.

Percentage of your work² (Please use a pie chart that would show your work against the group members.)



² If the entire project is 100%, the percentage your component covers

W.M.D.M.Y. Wickramanayaka

Student ID : **18001922**

Student Name: **W.M.D.M.Y. Wickramanayaka**

Group ID : **CS 37**

Group Name: **CleanCar**

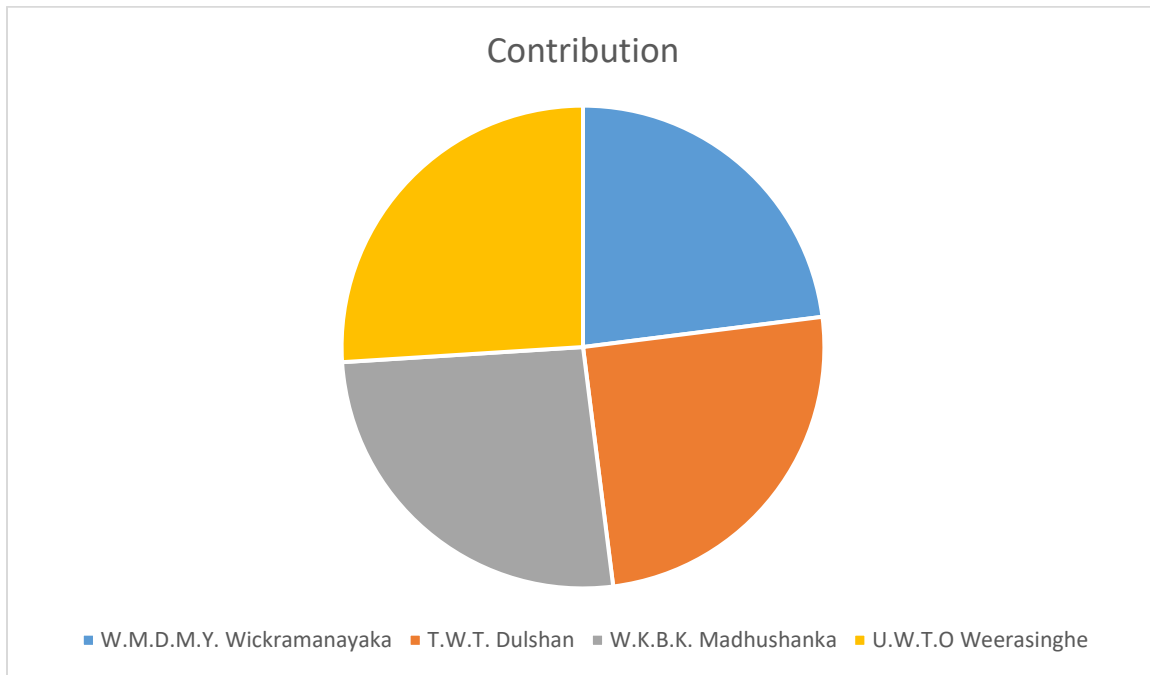
Name of the component (s):

1. All functionalities of Service Employee:
 - Add Employee Leaves
 - Display Upcoming Leaves
 - Cancel Leave
 - Leave Calendar
 - Leave statistic
2. Using charts for data visualization
3. Create database

Description of the component(s)

1. Service Employee Functionalities:
 - Employee can request leaves by giving date, leave type and reason. (And also include all validations)
 - Employee can check all the upcoming leaves he/she is requested. Also in here the employee can check whether the leave is accepted or not yet.
 - Employee can cancel leaves. If the cancelled leave is an accepted one, then update relevant employee's count of leaves.
 - Created leave calendar (**without using libraries**), to display all the accepted leaves the employee got during the whole year.
 - Employee can check the count of got leaves up to today and available leave count up to today
2. Use charts for visualizing the leaves counts statistically. Used chart.js online library
3. Create database for the system by including constraints.

Percentage of your work³ (Please use a pie chart that would show your work against the group members.)



W.K.B.K. Madhushanka

Student ID: **18000967**

Student Name: **W.K.B.K.Madhushanka**

Group ID: **CS 37**

Group Name: **CleanCar**

Name of the component (s):

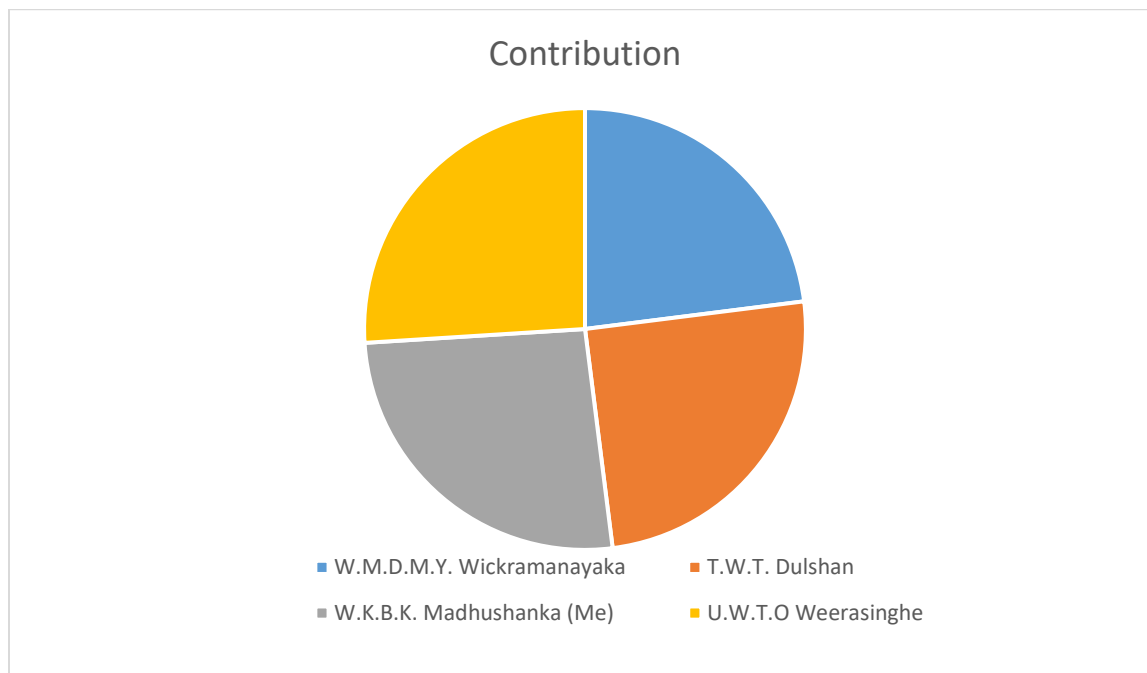
1. Manager role functionalities:
 - Employee functionalities (related to manager)
 - i. Add Leaves
 - ii. Cancel Leaves
 - iii. Pending Leaves
 - iv. Leave Report
 - Service Types
 - Invoice Reports
 - Time Slots
2. Integration of nexmo(vonage) SMS system.
3. All user profiles.
4. Data visualize using charts.
5. User password change.
6. Logo design.

Description of the component(s)

1. Manager role functionalities:
 - Employee functionalities.
 - i. From Add Leaves manager can add leave for employees (when employee reach to maximum leave limit, employee add leave button will disable. then manager can request leave for the employee. But it will affect to salary calculation)
 - ii. From Cancel Leaves manager able to cancel the employee leaves which are manager accepted earlier.
 - iii. Manager can Accept or Reject employee leave request form Pending Leave view.
 - iv. Leave Report Display all employee leaves according to their employee id
 - All the service type in service station manager can ADD, VIEW, UPDATE and DELETE service type form service type view
 - Display all invoices (in case of some issues in the bill, which receptionist issue to the customer manager can modify it and reissue it to the customer)
 - Display all the time slots service station have. manager can ADD, UPDATE and DELETE time slots

2. This SMS API is used to send SMS notifications to the system users (Employee receive SMS when manager accept/reject leaves and leave cancelation, customer receive SMS when service delay, all user receive SMS notification when change user password)
3. All system user can see their user details form User Profile and also can update their profiles.
4. For data visualization I used chart.js online library

Percentage of your work⁴ (Please use a pie chart that would show your work against the group members.)



T.W.T. Dulshan

Student ID : **18000487**

Student Name: **T.W.T. Dulshan**

Group ID : **CS 37**

Group Name: **CleanCar**

Name of the component (s):

1. All functionalities of Receptionist:
 - Employee functionalities
 - i. Add Employee
 - ii. View Employee
 - iii. Update Employee detail
 - iv. Delete Employee
 - Invoice functionalities
 - i. Add invoice
 - ii. View invoice report
 - Notification for delay services
2. Create PDF for customer invoice
3. Table structure for all views

Description of the component(s)

1. Receptionist Functionalities:
 - Employee functionalities
 - i. Receptionist can add employee to the system. In here, date of birth and gender are calculated by using NIC.
 - ii. Receptionist can view all employees' details and also detail of each employee one by one.
 - iii. Receptionist can update details of each employee.
 - iv. And also delete each employee details.
 - Invoice functionalities
 - i. Receptionist can create a bill for each business for the customer. If the customer already has a reservation, some of bill details are auto filled and using same function we can issue the bill for customers of the service centre who is not registered our system.
 - ii. Receptionist can view the invoice reports.
 - In here, if there is a delay for a service, receptionist inform to the customer about the delay time.
2. Used fpdf library for create PDF for bill of the invoice.
3. Make Responsive tables.

Percentage of your work⁵ (Please use a pie chart that would show your work against the group members.)

