



Banking Management App for Bank Managers

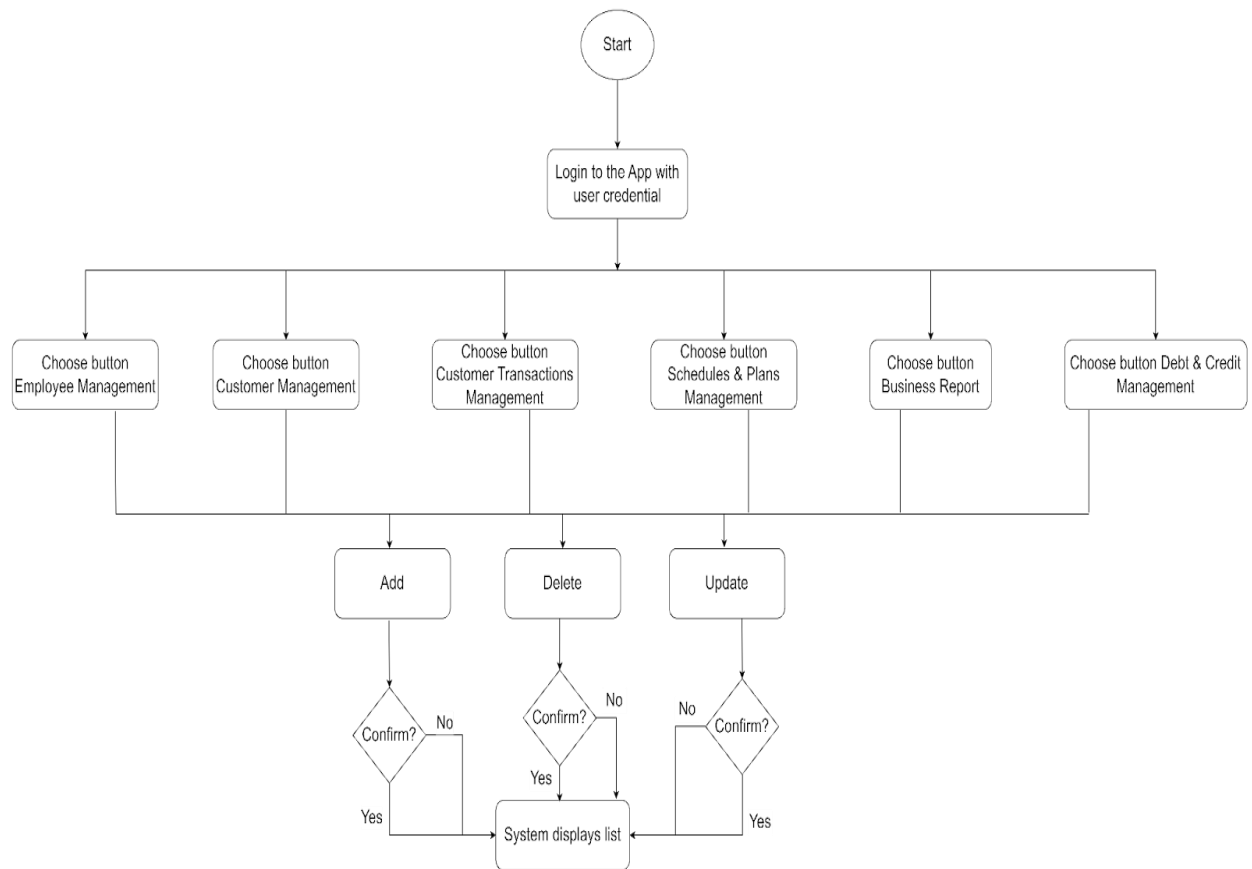
Member: Nguyen Thanh Phuc
Truong Huu Tai
Dinh Quang Tuan
Nguyen Manh Hai

HO CHI MINH CITY, 03/23

Contents

1. Banking Management - Application login.....	5
1.1 Website login:.....	6
2. Employee Management:	7
2.1: Create a new employee.	13
2.2: Edit employee information:	14
2.3: Delete employee.....	15
3. Customer management	17
3.1 Adding account.	17
3.2 Manage account.	21
4. Managing customer transactions	27
5. Banking Management - Schedules & Plans Management	31
5.1: Read information of schedule & plan diagram	32
5.2: Add a schedule & plan diagram	35
5.3: Delete a schedule & plan.....	38
5.4: Update a schedule & plan.....	41
6. View Business Report	44
7. Debt & Credit management	48
7.1 Check the Credit.....	49
7.2 Check the Debt.....	51
7.3 Open a loan.....	53
7.4 Debt handling	56

Business Flow Diagram



Project Overview

This is a Banking Management App designed specifically for bank managers. The application provides secure login options, including website login. The app includes use cases for employee management, allowing managers to create, edit, and delete employee information. It also includes customer management features, including adding and managing customer accounts and transactions.

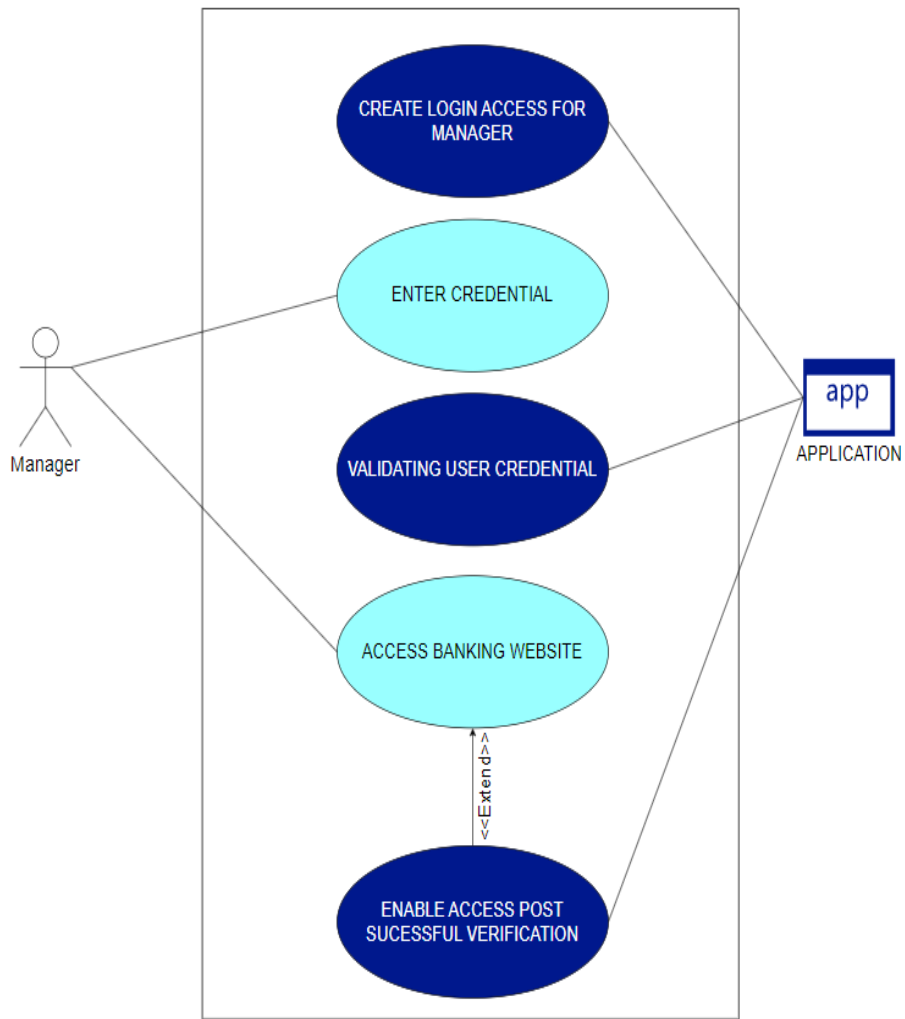
The app also has scheduling and plans management capabilities, allowing managers to read, add, delete, and update schedule and plan information. Additionally, managers can

Finally, the app includes debt and credit management features, allowing managers to check credit and debt information, open loans, and handle debt-related issues. Overall, the Banking Management App is a comprehensive tool designed to streamline banking management processes for bank managers.

1. Banking Management - Application login.

Use Case ID	1		
Use Case Name	Application login		
Create By	Truong Huu Tai	Last Updated By	
Date Created	23.03.2023	Date Last Updated	

Use case diagram: Banking Management - Application login.



1.1 Website login:

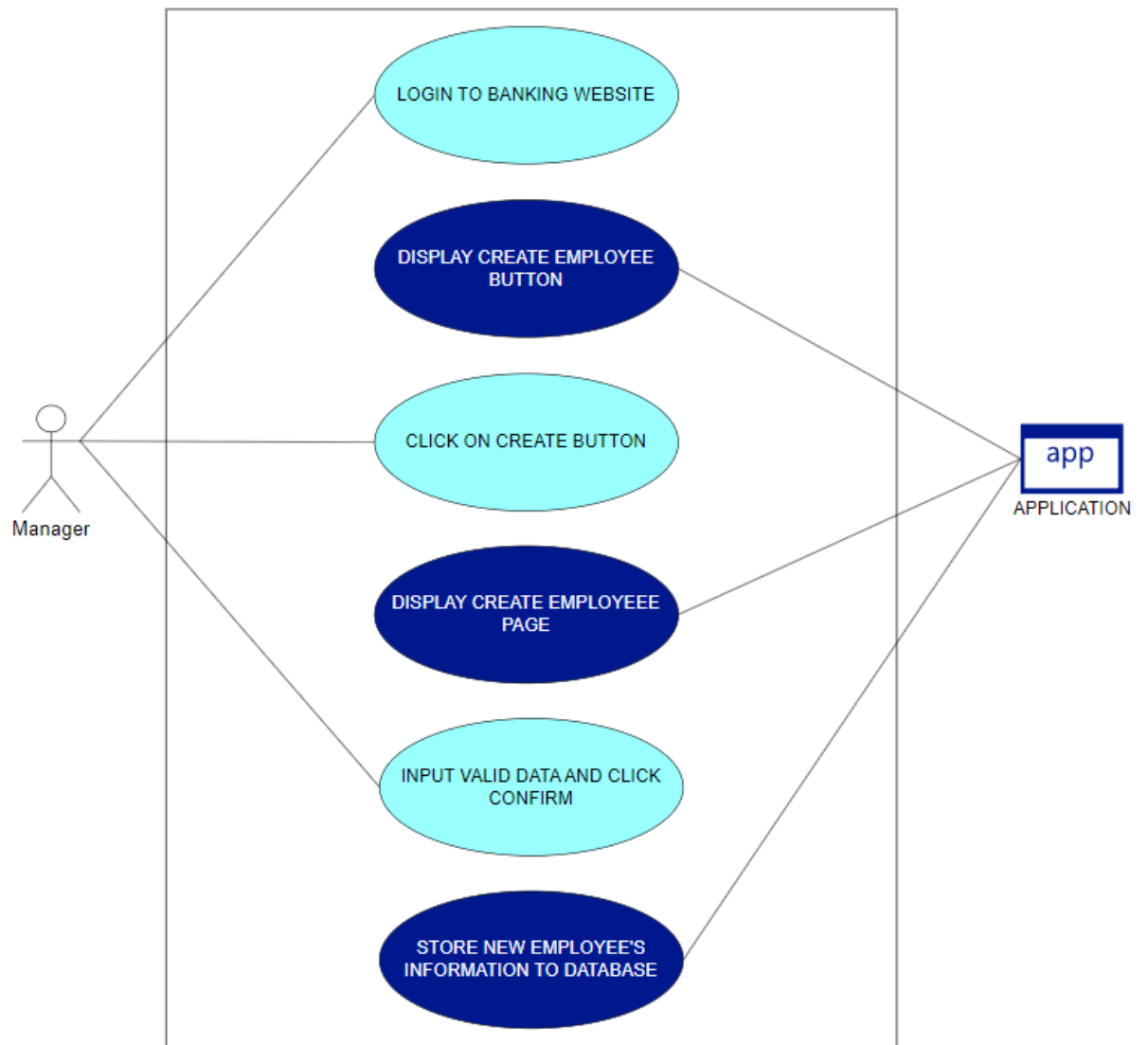
Actors	Banking manager
Description	User to log into the Banking management website
Preconditions	Login credentials to be created and given to manager
Postconditions	On successful logging in to the application, user must be directed to the main screen of the application.
Normal Course	<ol style="list-style-type: none">1. Once the user enters the credentials, the website should verify the details.2. If the creds are valid, user should be landed on the website dashboard, which contains the username, employee id, role details at one corner.3. Application must contain various tabs for employee's management, interest, customer transaction etc.4. User can also change password if required by clicking on 'Change Password' tab.
Alternative Course	<ol style="list-style-type: none">1. If the user credentials are invalid, an error message to be displayed on the screen.2. If the user doesn't have access, he can raise a request for access and admin creates his credentials and shares them as per the role.
Exception	System to validate if the user is existing or new and display 'Successfully Registered' / 'Account exists' accordingly

Includes	
Priority	Must Have
Frequency of use	Once after every logout
Business rules	
Special Requirements	If the user credentials are invalid 3 times, the account will be blocked, and user must contact admin to unlock the account
Assumptions	Users have valid login credentials
Notes and Issues	Incorrect login credentials forgot password.

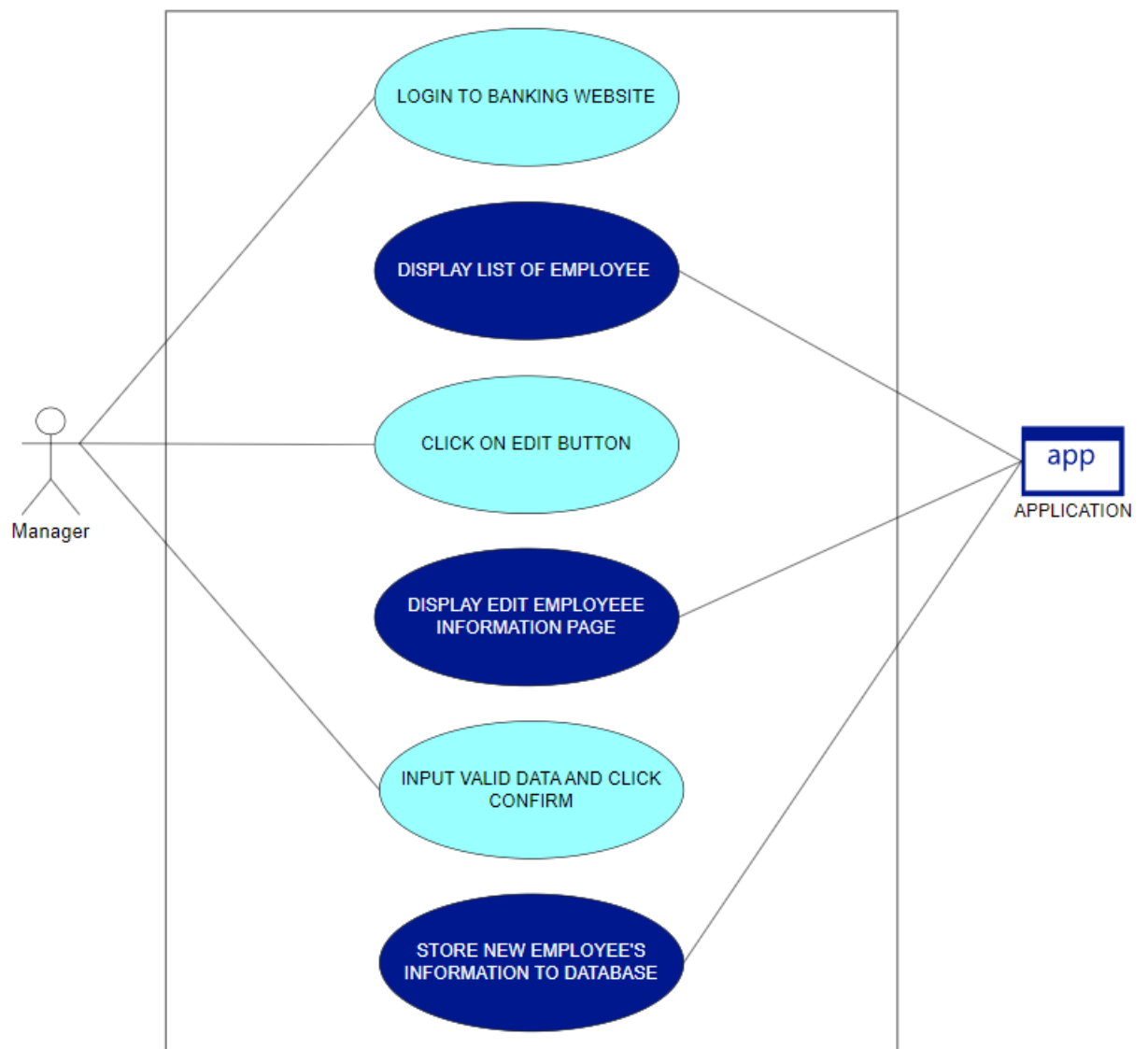
2. Employee Management:

Use Case ID	2		
Use Case Name	Employee management		
Create By	Truong Huu Tai	Last Updated By	
Date Created	23.03.2023	Date Last Updated	

Use case diagram: Create a new employee.




Use case diagram: edit employee information.



Use case diagram: Delete an employee.


Create employee

Username 

Username











Name
Employee







Department



Create Employee

Create Employee

ID	Name	Department
  ID	Name employee	Department
  ID	Name employee	Department
  ID	Name employee	Department
  ID	Name employee	Department
  ID	Name employee	Department

    ...  



2.1: Create a new employee.

Actors	Banking manager
Description	User can create new employee
Preconditions	User login to the system successfully
Postconditions	After creating a new employee successfully, all information of an employee are displayed on the screen
Normal Course	<ol style="list-style-type: none"> 1. Once the user navigates to the employee management page, create button and the list all employees are displayed on the screen. 2. When user click on create button, a form appears that permit user to enter information 3. If user input valid information and click on confirm button, a success message will be displayed on the screen
Alternative Course	<ol style="list-style-type: none"> 1. If the user input invalid data, an error message will be displayed on the screen 2. If the user empty mandatory input field, an error message will be displayed on the screen
Exception	
Includes	
Priority	Must Have
Frequency of use	When the bank has new employee
Business rules	

Special Requirements	
Assumptions	User input valid data
Notes and Issues	

2.2: Edit employee information:

Actors	Banking manager
Description	User can edit employee
Preconditions	User login to the system successfully
Postconditions	After editing an employee successfully, all information of a employee are displayed on the screen
Normal Course	<ol style="list-style-type: none"> 1. Once the user navigates to the employee management page, edit button is appeared on each employee information displaying on the screen. 2. When user click on edit button, a form appears that permit user to edit information 3. If user input valid information and click on confirm button, a success message will be displayed on the screen
Alternative Course	<ol style="list-style-type: none"> 1. If the user input invalid data, an error message will be displayed on the screen 2. If the user empty mandatory input field, an error message will be displayed on the screen

Exception	
Includes	
Priority	Must Have
Frequent of use	When user need to edit employee information
Business rules	
Special Requirements	
Assumptions	User input valid data
Notes and Issues	

2.3: Delete employee.

Actors	Banking manager
Description	User can delete employee
Preconditions	User login to the system successfully
Postconditions	After deleting an employee successfully, a message is displayed on the screen
Normal Course	<ol style="list-style-type: none"> 1. Once the user navigates to the employee management page, delete button is appeared on each employee information displaying on the screen. 2. When user click on delete button, an alert message appears

	<p>that warn user before deleting a employee</p> <p>3. If user click on confirm button, a success message will be displayed on the screen</p>
Alternative Course	
Exception	
Includes	
Priority	Must Have
Frequency of use	When user need to delete employee information
Business rules	
Special Requirements	
Assumptions	User input valid data
Notes and Issues	

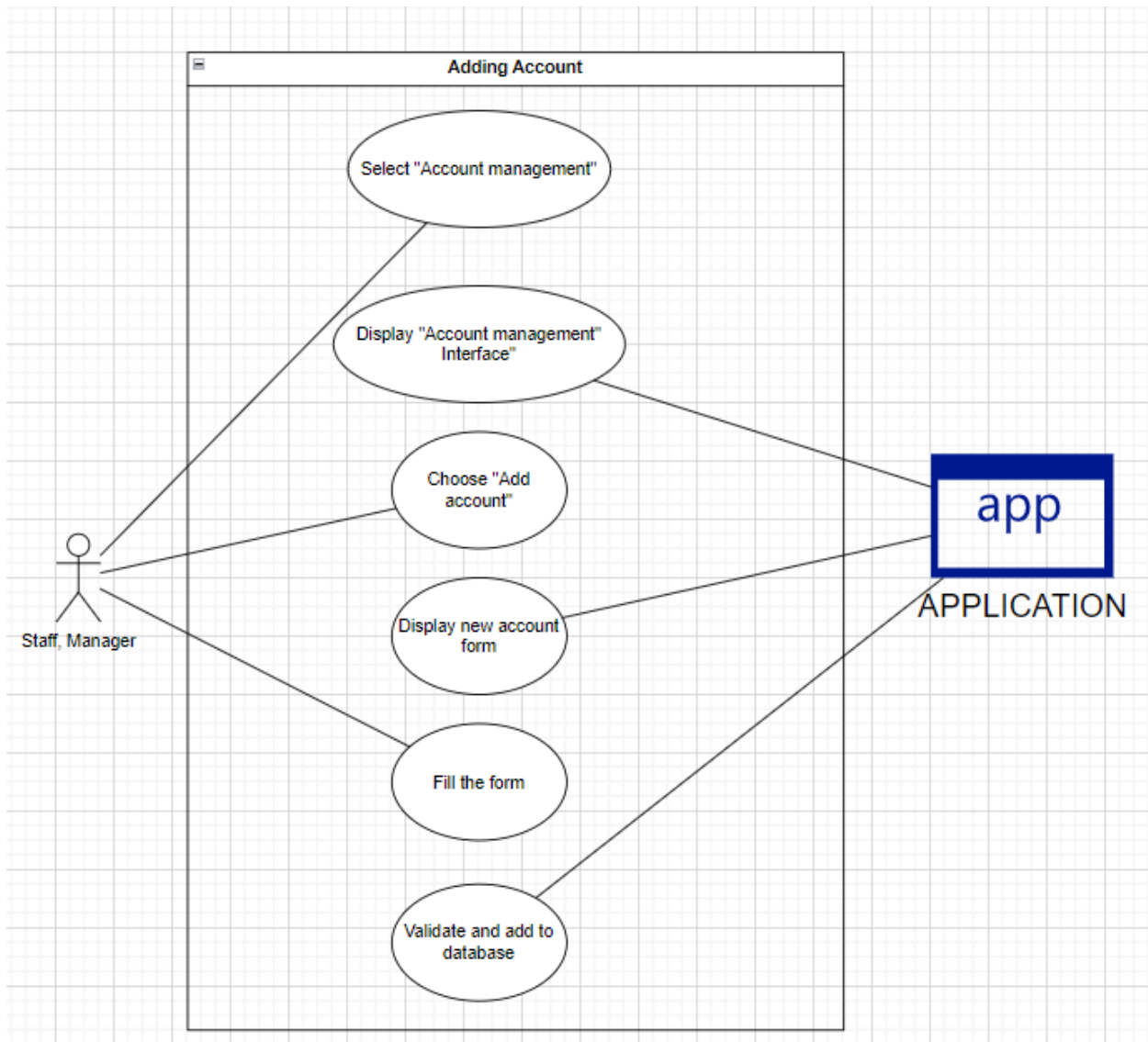
3. Customer management

Use Case ID	3		
Use Case Name	Customer management		
Create By	Hai	Last Updated By	
Date Created	22/03/2023	Date Last Updated	

3.1 Adding account.

Actors	Manager
Description	Add a new account to database
Preconditions	Login
Postconditions	A new account is added to database
Normal Course	All fields in form must be filled
Alternative Courses	If the user closes the page without saving the details or the user doesn't confirm the details display an error on the screen
Exceptions	

Includes	
Priority	Must have
Frequency of Use	Every time new customer come
Business Rules	
Special Requirements	
Assumptions	Users have valid login credentials
Notes and Issues	Account details are invalid: fill the invalid field



Add Account

Username

Name

Phone number

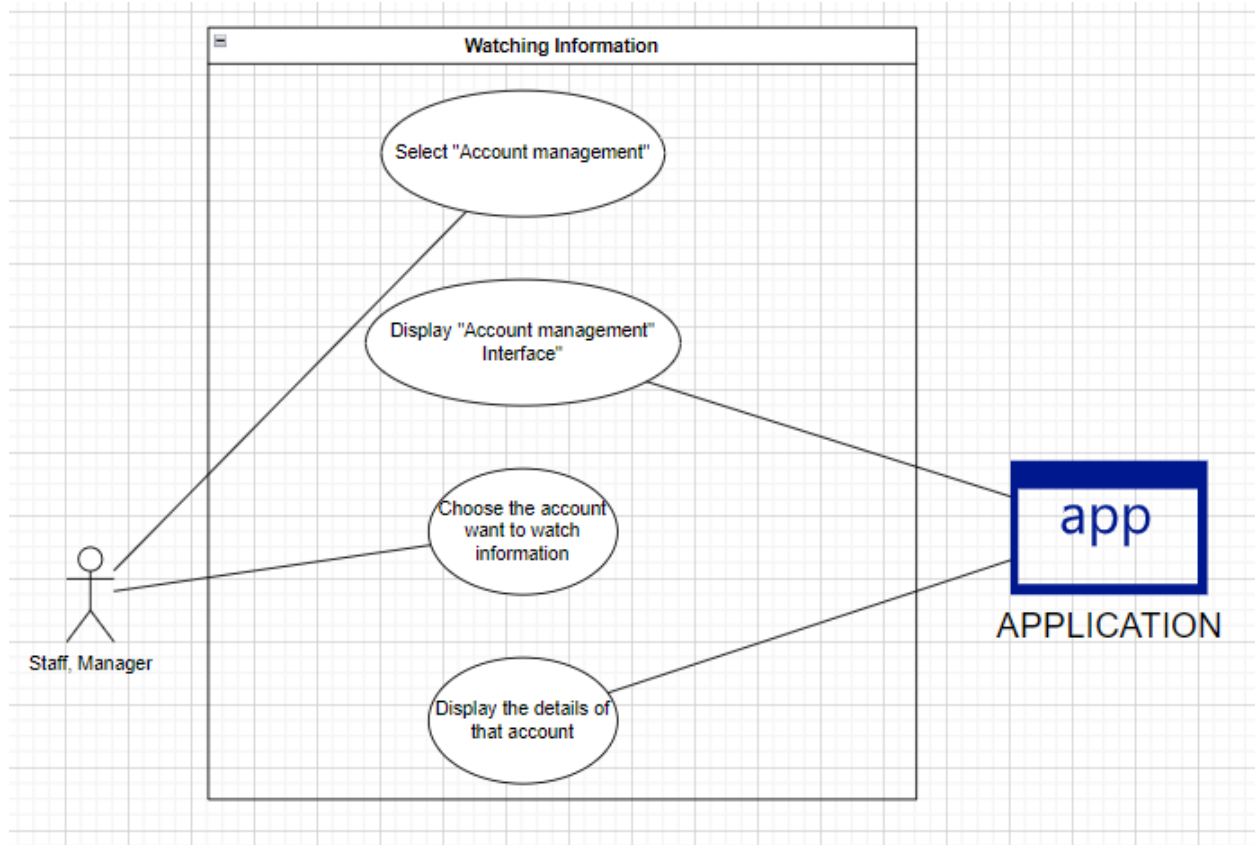
Citizen ID

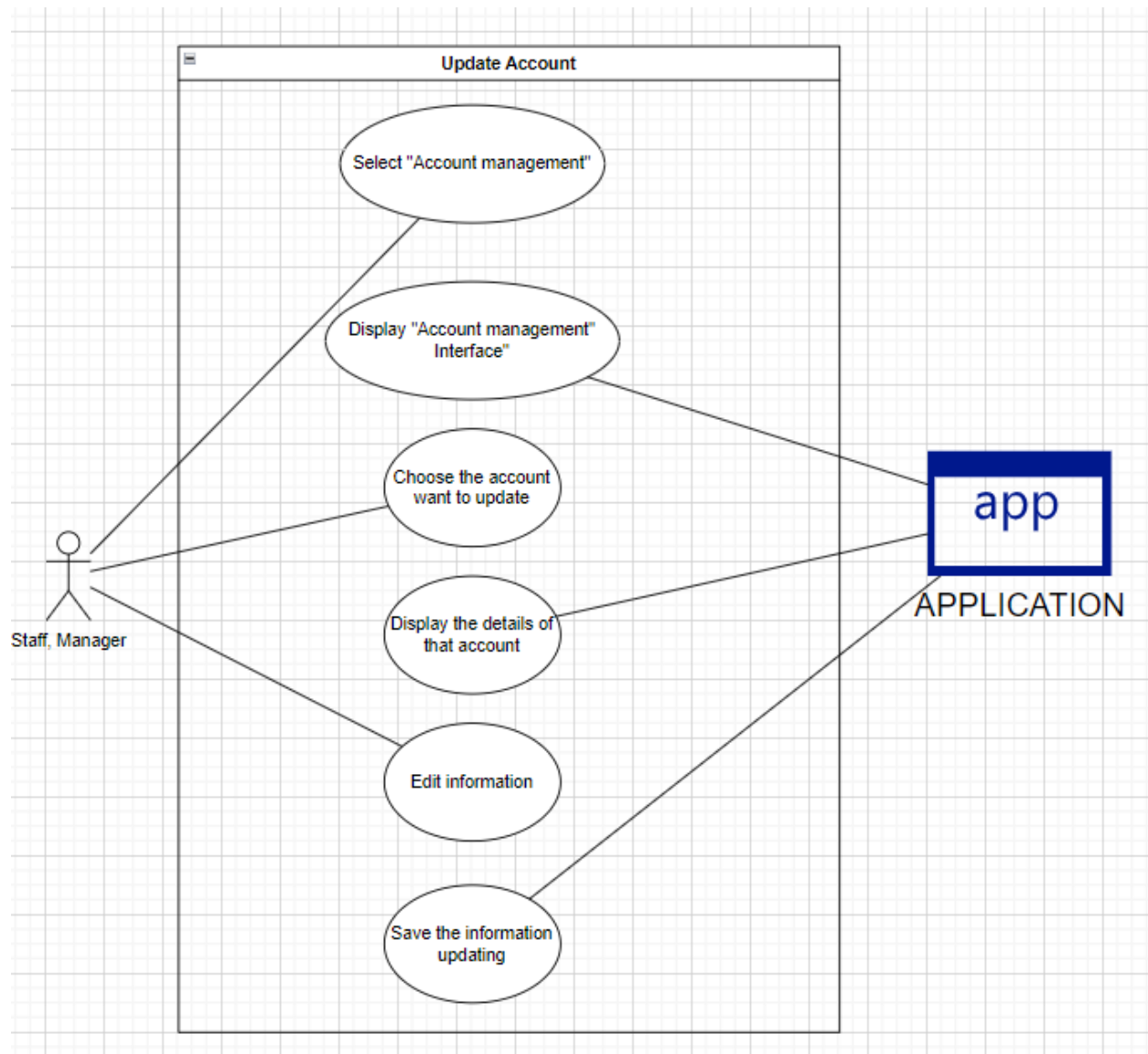
Add

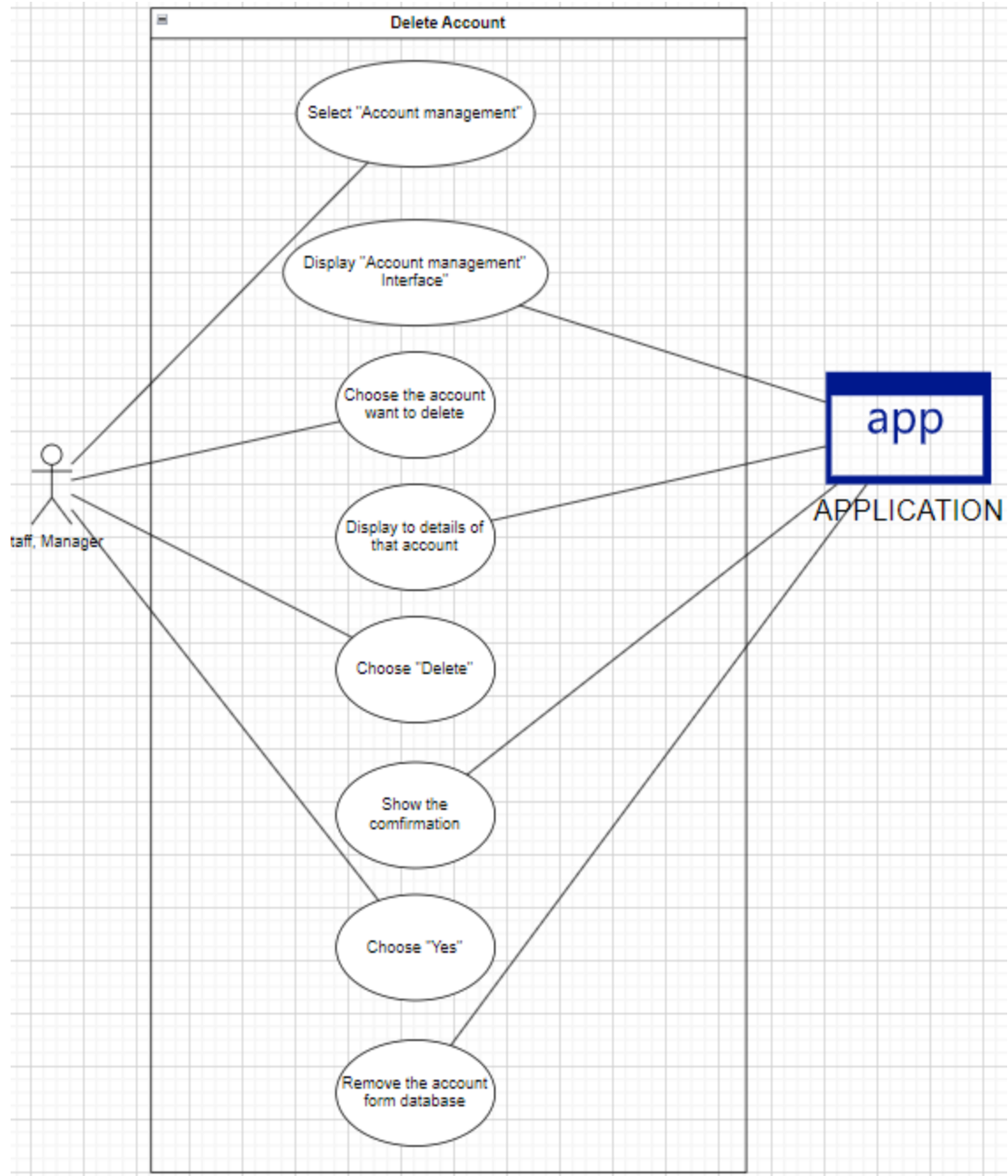
3.2 Manage account.

Actors	Manager
Description	Managing the account: watch details information, update, delete.
Preconditions	Login, account must exist in the database
Postconditions	<ul style="list-style-type: none">- Information of the account show on- Information is updated successfully- Account is deleted successfully
Normal Course	<ul style="list-style-type: none">- All fields in form must be filled
Alternative Courses	If the user closes the page without saving the details or the user doesn't confirm the details, display an error on the screen
Exceptions	Only manager can delete account
Includes	

Priority	Must have
Frequency of Use	Every time new a customer wants to update information
Business Rules	
Special Requirements	
Assumptions	Users have valid login credentials
Notes and Issues	Account details are invalid: fill the invalid field again















Manage Account

Add Account

.....

ID	Username	Name
  ID	Username	Name
  ID	Username	Name
  ID	Username	Name
  ID	Username	Name

Account Details

ID

ID01

Username

Username01

Name

Name01

Phone number

Phone number 01

Citizen ID

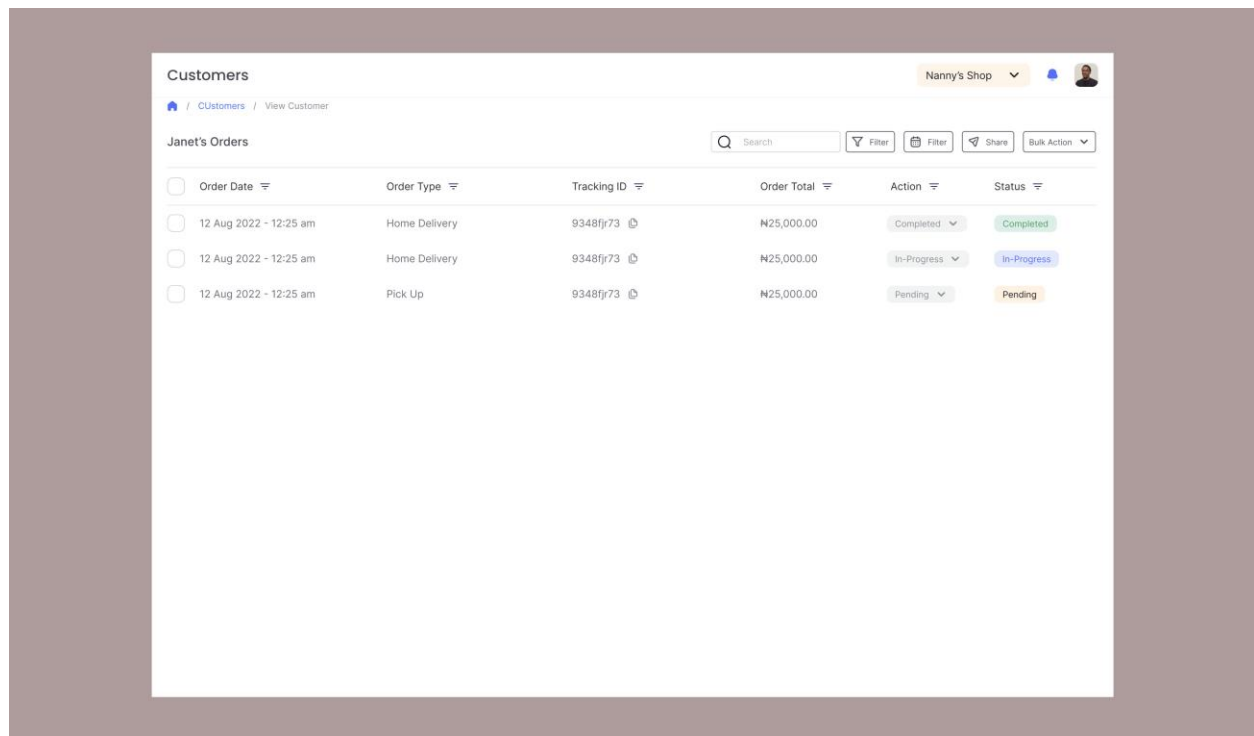
Citizen ID 01

Debt & Credit

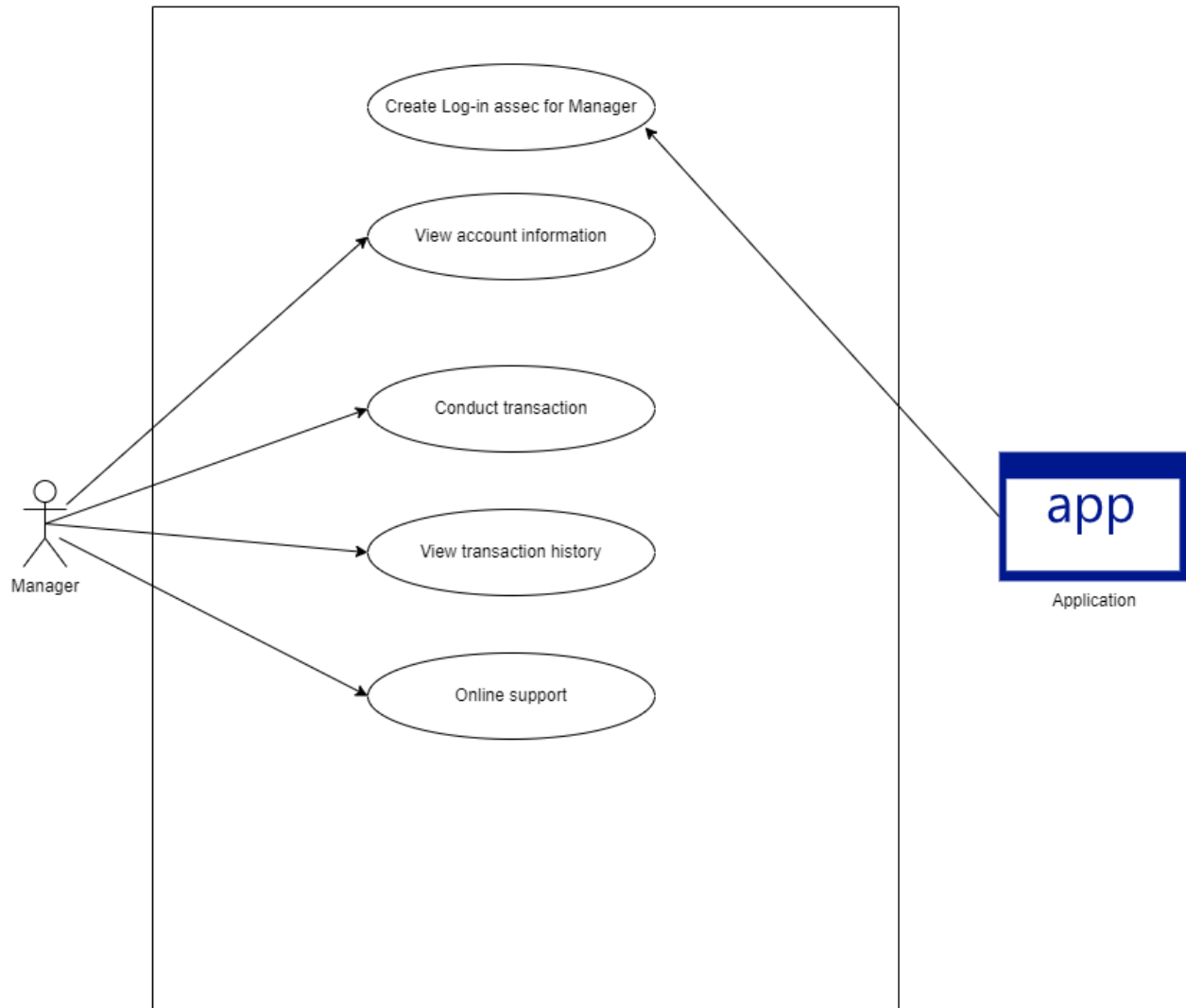
Save

4.Managing customer transactions

Use Case ID	4		
Use Case Name	Managing customer transactions		
Create By	Nguyen Thanh Phuc	Last Updated By	
Date Created	23.03.2023	Date Last Updated	



Managing customer transactions



Actors	Manager, customers
Description	This feature allows the manager to view and manage customer transaction information within a certain period. The manager can view the total amount of money the customer has transacted, the number of transactions, the type of transactions (such as transfers, withdrawals, bill payments), and the recipient or

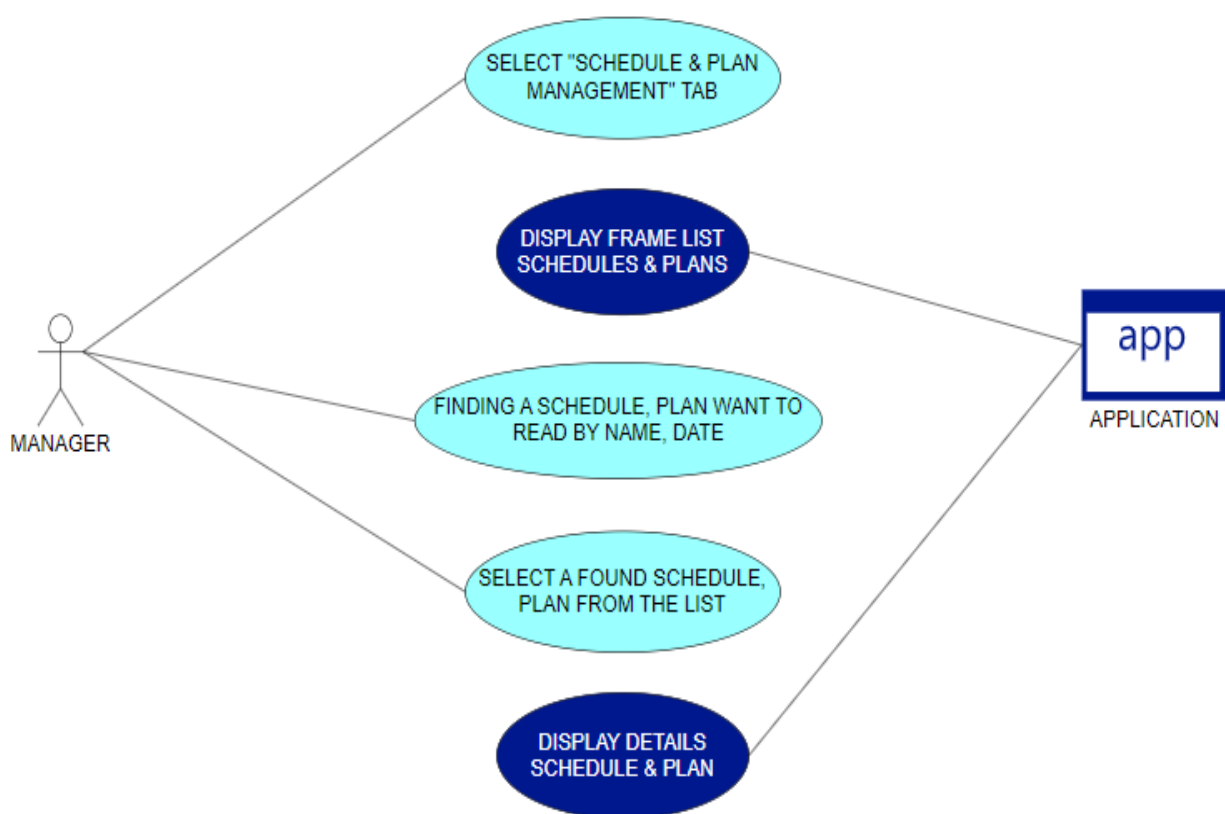
	sender of the money. This feature enables the manager to monitor the transaction situation of customers, search for detailed information, if necessary, as well as manage risks and monitor the bank's business operations.
Preconditions	The manager must be logged in to the system and have the necessary permissions to access the transaction information.
Postconditions	The transaction information is updated and can be used for further analysis and decision-making.
Normal Course	<ol style="list-style-type: none"> 1. The manager logs in to the system. 2. The manager selects the option to view transaction information. 3. The manager inputs the desired time frame for the transactions. 4. The system displays a list of transactions with information on the total amount, number, type, and recipient or sender of the money. 5. The manager can search for more detailed information if necessary. 6. The manager can use the information for analysis and decision-making.
Alternative Courses	<p>3a. The manager selects the option to view transaction information for a specific customer.</p> <p>4a. The system displays a list of transactions for that customer within the desired time frame.</p>

Exceptions	<p>If the manager is not logged in or does not have the necessary permissions, they cannot access the transaction information.</p> <p>If there are technical issues with the system, the transaction information may not be displayed or may be inaccurate.</p>
Includes	None
Priority	High
Frequency of Use	Daily
Business Rules	The transaction information must be accurate and up to date.
Special Requirements	None
Assumptions	The system is reliable, and the transaction information is stored securely.
Notes and Issues	The manager should ensure that they have the necessary legal authority to access and use customer transaction information.

5. Banking Management - Schedules & Plans Management

Use Case ID	5		
Use Case Name	Schedules & Plans management		
Create By	Dinh Quang Tuan	Last Updated By	
Date Created	22/03/2023	Date Last Updated	

5.1: Read information of schedule & plan diagram



Username

Create Schedule

ID	Name Schedule	Start Time	End Time	Status
ID	Name Schedule	dd/MM/YYYY, hh:mm	dd/MM/YYYY, hh:mm	Processing
ID	Name Schedule	dd/MM/YYYY, hh:mm	dd/MM/YYYY, hh:mm	Processing
ID	Name Schedule	dd/MM/YYYY, hh:mm	dd/MM/YYYY, hh:mm	Coming
ID	Name Schedule	dd/MM/YYYY, hh:mm	dd/MM/YYYY, hh:mm	Coming
ID	Name Schedule	dd/MM/YYYY, hh:mm	dd/MM/YYYY, hh:mm	Finished

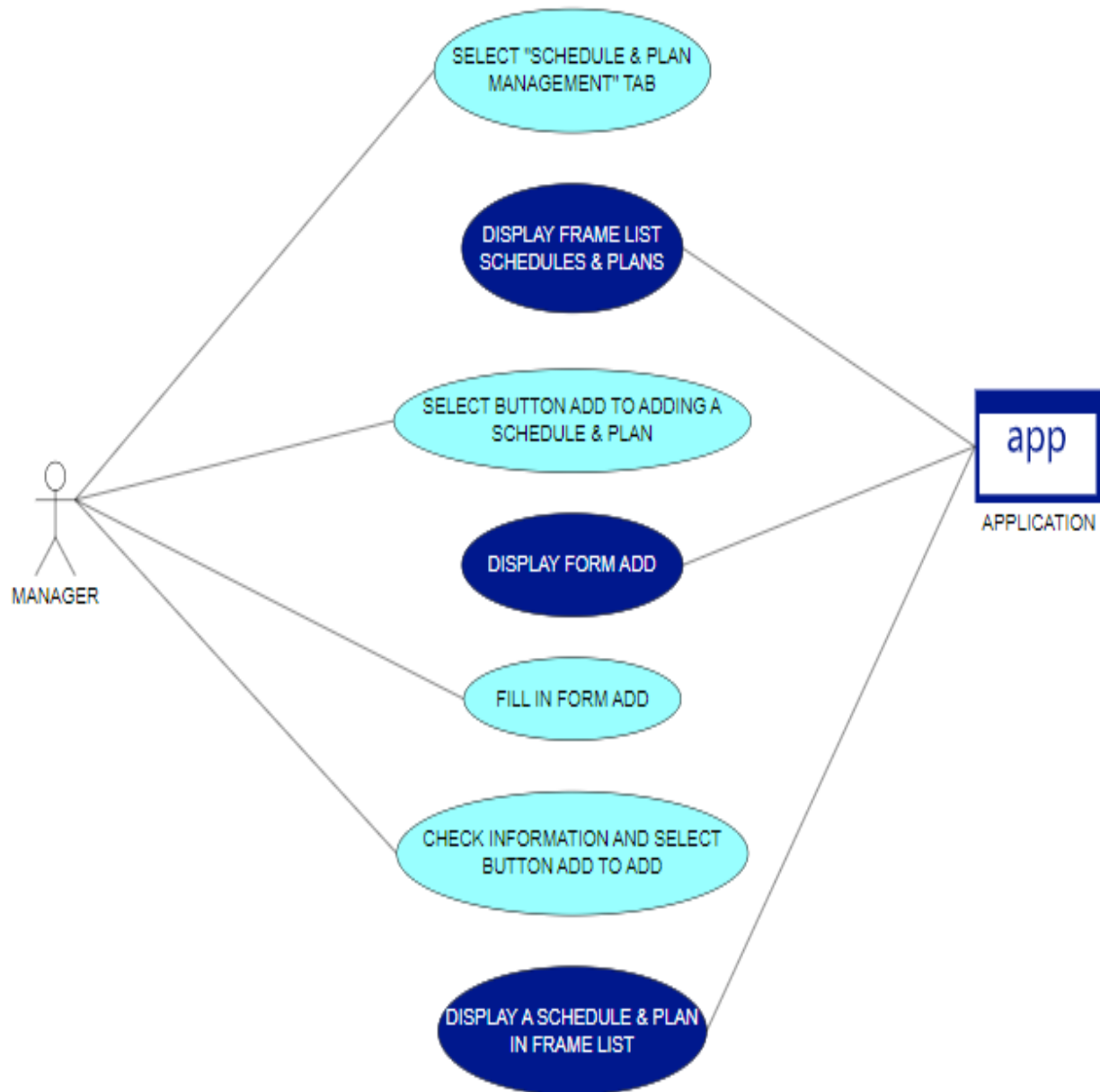
<< 1 2 3 ... 6 >>

Actors	Manager
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Description	User managers add a schedule-plan information detail
Preconditions	Login
Postconditions	Managers click tab ‘schedule & plan management’
Normal Course	<ol style="list-style-type: none"> 1. Manager click button add. 2. System displays form add details. 3. Managers fill in form and click button add. 4. System performs the user’s request. 5. System adds new schedule-plan and displays list of schedules-plans.
Alternative Courses	If manager doesn’t want to add a schedule-plan and can click button back to frame list.
Exceptions	None
Includes	
Priority	Must have
Frequency of Use	
Business Rules	

Special Requirements	
Assumptions	
Notes and Issues	

5.2: Add a schedule & plan diagram



Actors	Manager
Description	User managers delete a schedule-plan information detail

Preconditions	Login
Postconditions	Managers click tab ‘schedule & plan management’
Normal Course	<ol style="list-style-type: none"> 1. Manager click choose one or more schedule-plan to delete and click button delete. 2. System performs the user’s request. 3. System displays list of schedules-plans.
Alternative Courses	If manager doesn’t want to delete schedule-plan and can click button cancel.
Exceptions	None
Includes	
Priority	Must have
Frequency of Use	
Business Rules	
Special Requirements	
Assumptions	
Notes and Issues	

Create schedule

Username

Name

Start time

27



03



2023



09h



00m



End time

31



03



2023



18h

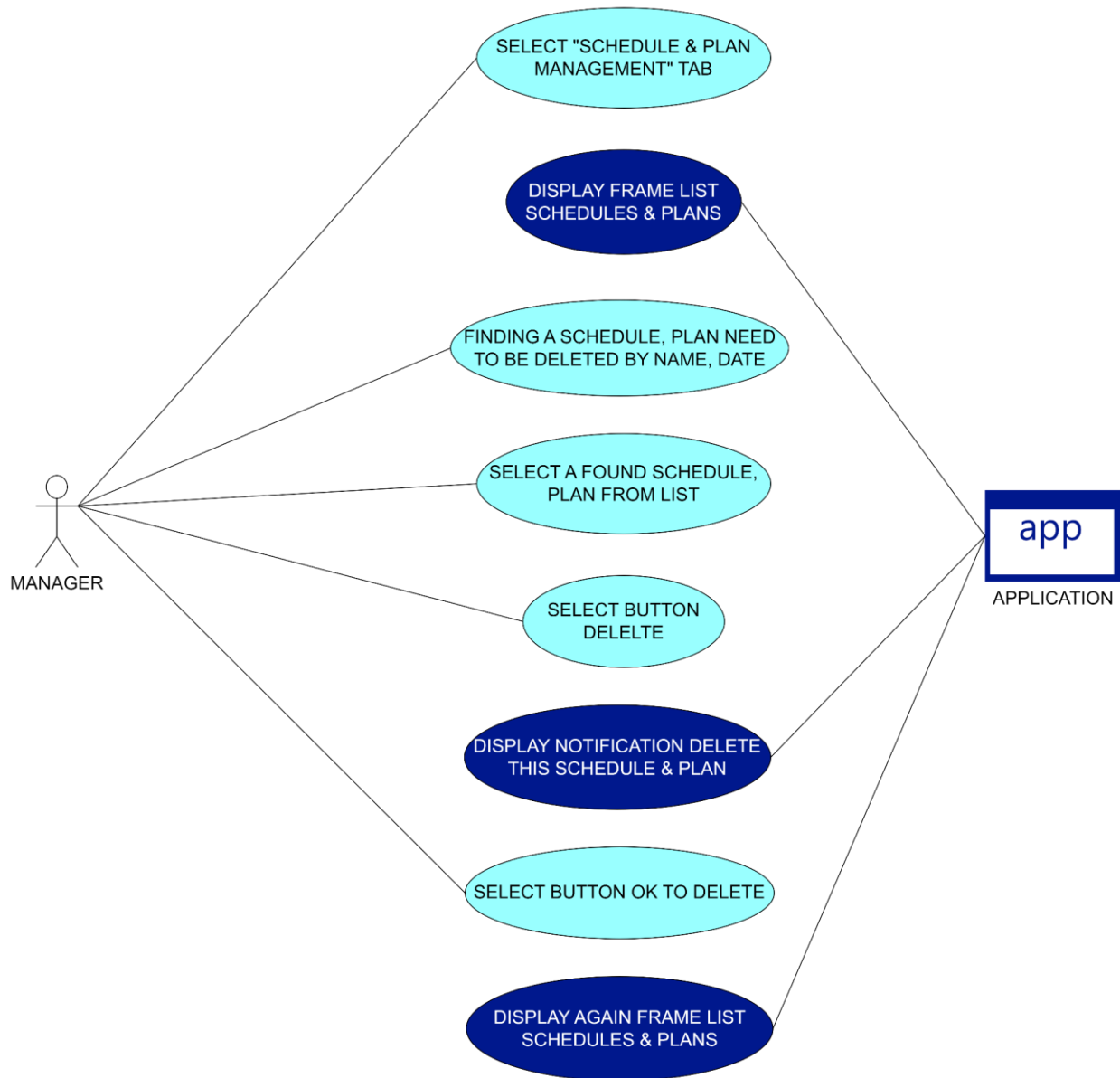


15m



Create Schedule

5.3: Delete a schedule & plan

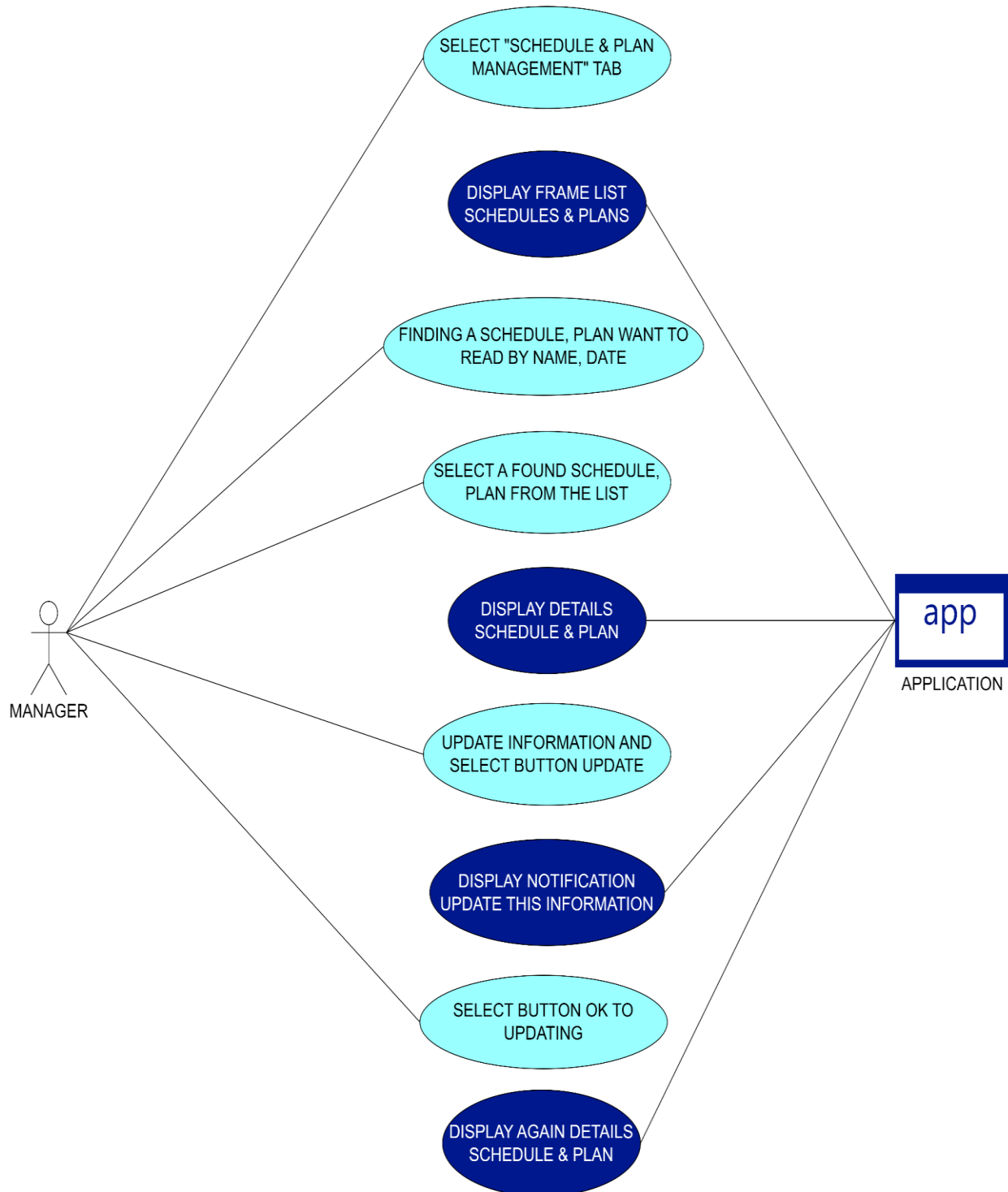


Actors	Manager
Description	User managers delete a schedule-plan information detail

Preconditions	Login
Postconditions	Managers click tab 'schedule & plan management'
Normal Course	<ol style="list-style-type: none"> 1. Manager click choose one a schedule-plan to update information. 2. System displays form update information. 3. Managers fill in and click button update. 4. System performs the user's request. 5. System displays list of schedules-plans.
Alternative Courses	If manager doesn't want to update schedule-plan and can click button cancel.
Exceptions	None
Includes	
Priority	Must have
Frequency of Use	
Business Rules	
Special Requirements	
Assumptions	

Notes and Issues	
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5.4: Update a schedule & plan.



Actors	Manager
Description	User managers update a schedule-plan information detail
Preconditions	Login
Postconditions	Managers click tab 'schedule & plan management'
Normal Course	<ol style="list-style-type: none"> 1. Manager click choose one a schedule-plan to update information. 2. System displays form update information. 3. Managers fill in and click button update. 4. System performs the user's request. 5. System displays list of schedules-plans.
Alternative Courses	If manager doesn't want to update schedule-plan and can click button cancel.
Exceptions	None
Includes	
Priority	Must have
Frequency of Use	
Business Rules	
Special Requirements	
Assumptions	
Notes and Issues	

Username

Update schedule

Name

Start time

27



03



2023



09h



00m



End time

31



03



2023



18h



15m



Status

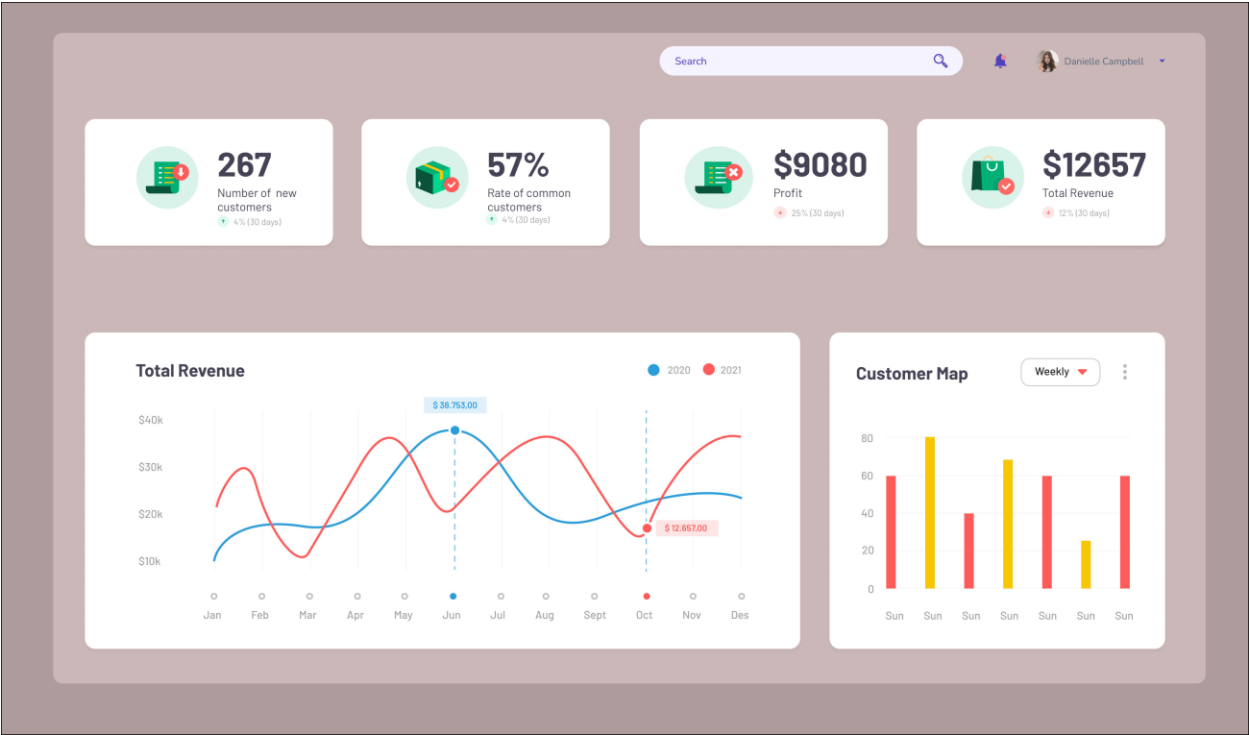
Finished



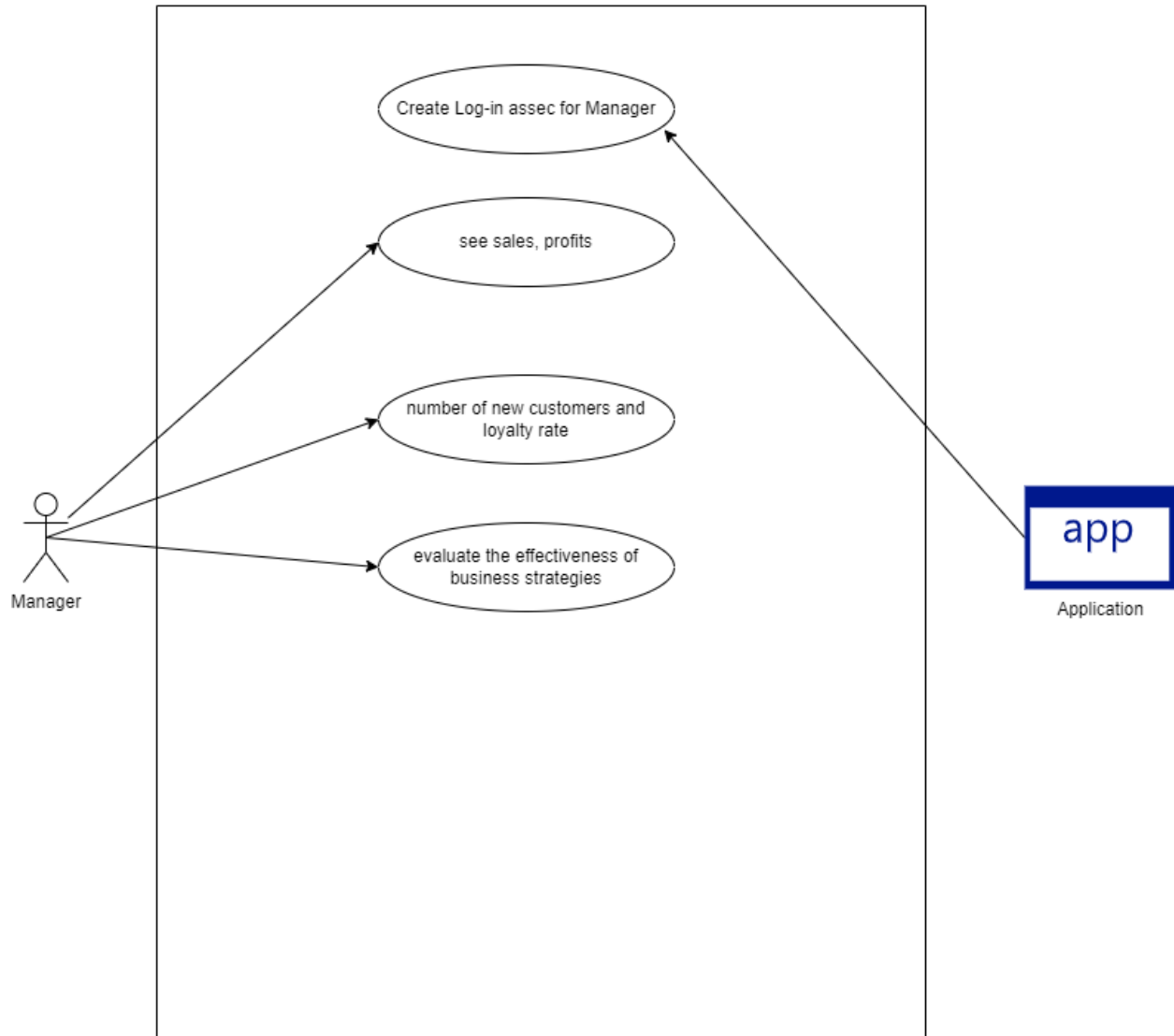
Update Schedule

6. View Business Report

Use Case ID	6		
Use Case Name	View Business Report		
Create By	Nguyen Thanh Phuc	Last Updated By	
Date Created	23.03.2023	Date Last Updated	



View Business Report



Actors	Bank Manager
Description	This feature allows the Bank Manager to view a summary report of the bank's business operations, including sales figures, profits, number of new customers, and customer loyalty rates. This feature

	helps the Bank Manager evaluate the effectiveness of business strategies and make appropriate decisions based on market conditions.
Preconditions	The Bank Manager must have a valid login account and access to the system.
Postconditions	The Bank Manager has viewed the summary report of the bank's business operations.
Normal Course	<p>7. The Bank Manager selects the "View Business Report" option from the system menu.</p> <p>8. The system displays the summary report of the bank's business operations.</p> <p>9. The Bank Manager reviews the report to evaluate the bank's performance.</p> <p>10. The Bank Manager makes decisions based on the information provided in the report.</p>
Alternative Courses	None
Exceptions	If the system encounters an error while generating the report, it displays an error message to the Bank Manager.
Includes	<p>View Sales Report</p> <p>View Profit and Loss</p> <p>View Customer Loyalty</p>

Priority	High
Frequency of Use	Daily
Business Rules	None
Special Requirements	The system should be able to generate reports with up-to-date data.
Assumptions	<p>The Bank Manager has the necessary knowledge to interpret the report.</p> <p>The report displays accurate and reliable data.</p>
Notes and Issues	None

7. Debt & Credit management

ID	7		
Use Case Name	Debt & Credit management		
Create By	Hai	Last updated by:	Hai

Date Created	22/03/2023	Date Last Update	23/03/2023
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Debt & Credit

Credit

Debt

Status

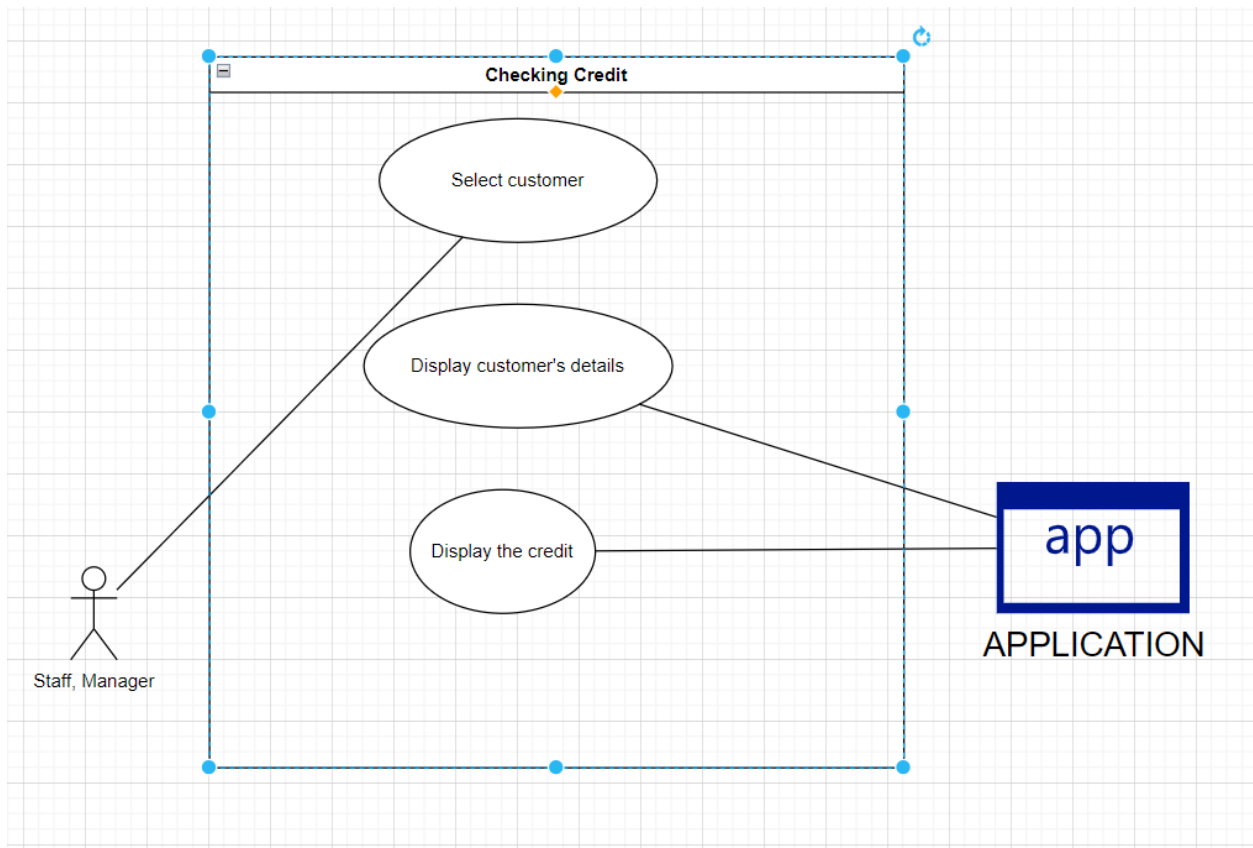
Date

Term

7.1 Check the Credit

Actors	Manager
Description	Check the credit to see the ability of a customer
Preconditions	Login

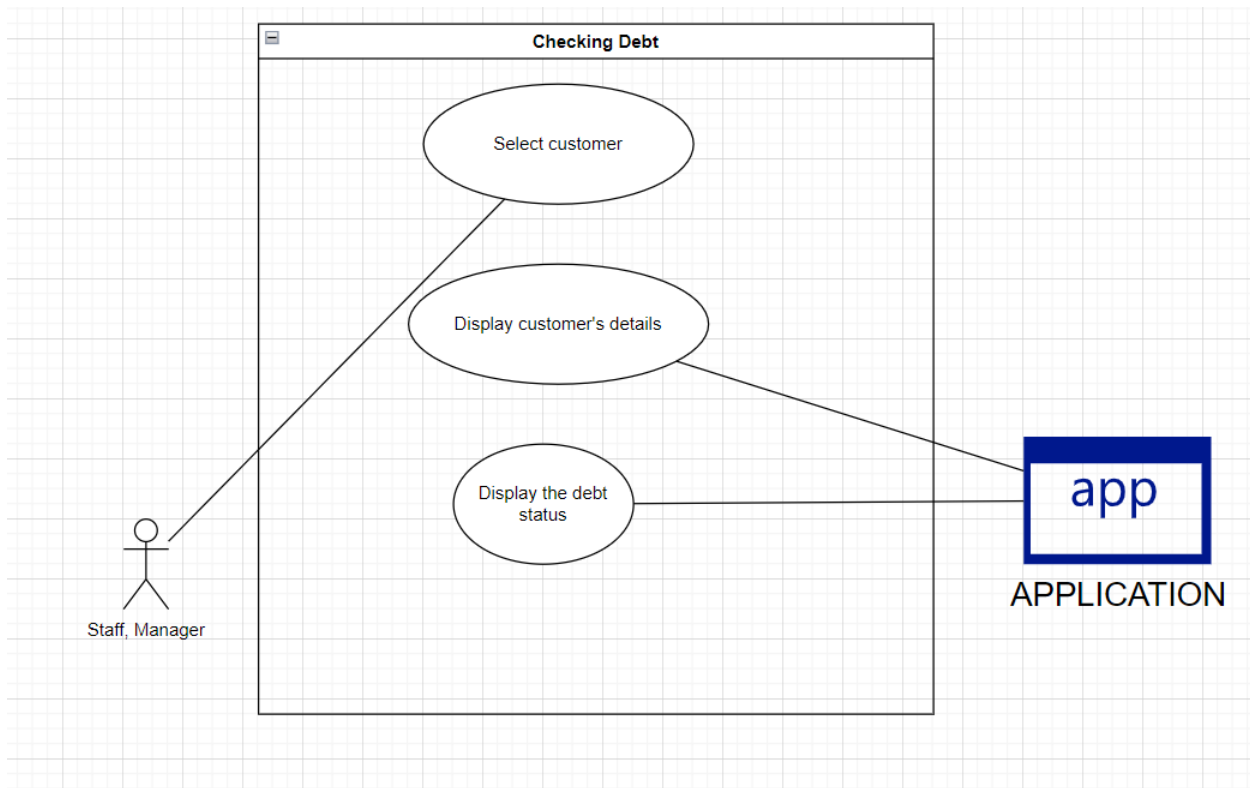
Postconditions	The credit of the customer
Normal Course	
Alternative Courses	
Exceptions	
Includes	
Priority	Must have
Frequency of Use	When a customer wants to loan
Business Rules	
Special Requirements	
Assumptions	
Notes and Issues	



7.2 Check the Debt

Actors	Manager
Description	Check the debt status of a customer
Preconditions	Login
Postconditions	the debt status of the customer

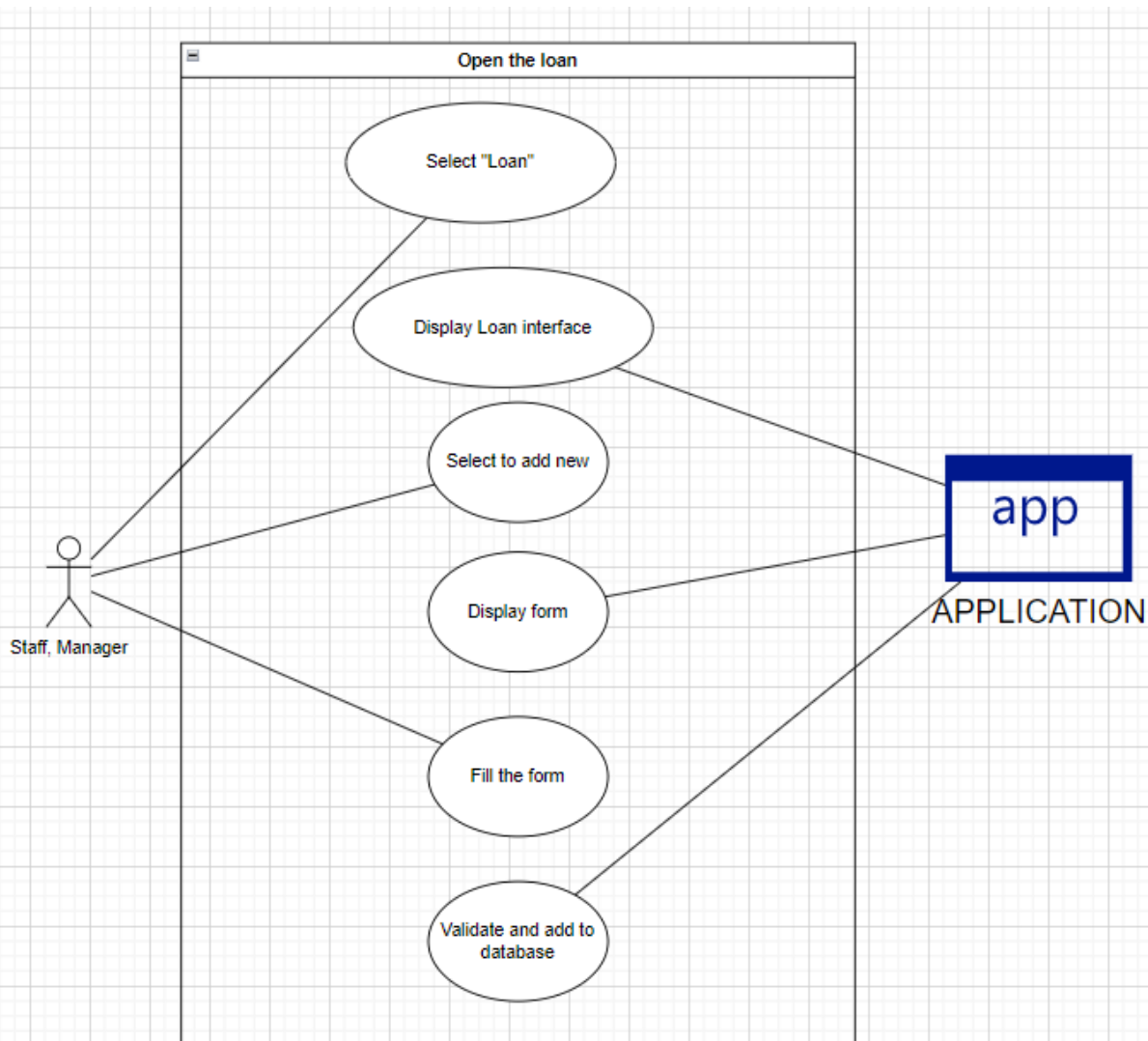
Normal Course	
Alternative Courses	
Exceptions	
Includes	
Priority	Must have
Frequency of Use	
Business Rules	
Special Requirements	
Assumptions	
Notes and Issues	



7.3 Open a loan

Actors	Manager
Description	Register a loan application for a customer
Preconditions	Login
Postconditions	Customer received loan
Normal Course	

Alternative Courses	
Exceptions	
Includes	Check credit
Priority	Must have
Frequency of Use	Whenever a customer wants to loan
Business Rules	
Special Requirements	A customer must have enough credit
Assumptions	
Notes and Issues	



Open loan

Username

Money

Save

7.4 Debt handling

Actors	Manager
Description	Update debt status for a customer
Preconditions	Login
Postconditions	Debt status is updated
Normal Course	

Alternative Courses	
Exceptions	
Includes	
Priority	Must have
Frequency of Use	
Business Rules	
Special Requirements	
Assumptions	
Notes and Issues	If customer is out of debt, set status to “Out of debt”

