

VIRTUAL BANK MANAGMENT SYSTEM



Version No.	Date	Prepared by / Modified by	
1.0.0	07/07/2022	Varun Dabhare	
1.0.0	07/07/2022	Ankithraddi .	
1.0.0	07/07/2022	Prathik T P	
1.0.0	07/07/2022	Sarita Negi	
1.0.0	07/07/2022	Aastha Topwal	
1.0.0	07/07/2022	Vijaylakshmi M	

TABLE OF CONTENTS:

1.Introduction.

2.Scope of change.

3.List of impacted modules.

4.Design and detailed technical updates.

4.1 Process model.

4.1.1 Use case model of admin
account.

4.1.2 Use case model of employee
account.

4.1.3 Use case model of client
account.

4.2 Sequence diagrams.

- Login and registration.
- Admin account.
- Employee account.
- Client account.

5. Proposed user interface and designs.

- Home page.
- Registration page.
- Login page.
- Admin account page.
- Employee account page.
- Client account page.

6. Construction strategy and re-use.

7. Technologies used.

1.INTRODUCTION:

Online banking management application which can be used by ADMIN, EMPLOYEE and CLIENT of the bank.

This application is developed to fulfill the requirements of admin, employee and client. In this application we've added all the advanced technology which supports the application to complete all the needs of users. This application includes functionalities like creating an account, currency exchange, transfer of amount, deposits, credits and password change. This application is reliable for all types of accounts and suitable to exchange few currencies. To maintain proper security, we've added element called submission in which clients can request for acceptance of creating new account and acknowledge the problems to the employee to get the resolutions. Employees can raise the tickets for any kind of support from the admin.

2.SCOPE OF CHANGE:

There is no need to change anything in whole project as we worked to make it understandable, reliable and secured.

3. LIST OF IMPACTED MODULES.

All the modules which are implemented in this project is inter related and playing a key role throughout the application. All the functional modules were created using some reusable codes which can be added into our web application. The reusable codes were taken from the projects we've made in the class room training and from the online resources.

4.DESIGN AND DETAILED TECHNICAL UPDATES:

4.1 Process model:

4.1.1 Use case model of ADMIN Account:

After logging in to the admin account there will be four (4) main elements namely STATISTICS, WORKERS, SUBMISSION and PROFILE.

STATISTICS: In the statistics part there is an option to see the types of currencies and can change the currency rate. Admin can edit transfer and currency exchange rate for the different types of accounts.

WORKERS: Here with the help of Employee management, admin can check the complete details of the employees. Along with this there is a functionality to add new employees and employee ID will be created automatically.

SUBMISSION: In the submission part admin can see the tickets raised by the employees and change the status for the same along with the date and time and can reply for the queries.

PROFILE: In the profile, admin can see the complete personal details. That includes first name, last name, emp id etc..... also here we've included an option to reset the password.

The operations performed will be saved in the backend and admin can logout for maintaining the security.

4.1.2: Use case model of EMPLOYEE Account:

After logging in to the employee account there will be five (5) main elements namely PAYMENTS, CREDITS, USERS, SUBMISSION and PROFILE.

PAYMENTS:

In payments section, employee can deposit money in the user accounts just by entering the account number and can check the instant payment history along with transfer details. Employee can change the status of the deposit as active, pending, approved and rejected.

CREDITS:

Employee can create a loan in the name of credit for the users and can change the status of previous credits as active or solved. Also by entering the credit details employee can get the details of the credits taken by the users.

USERS:

Here employee can fetch the details of the users by entering their account ID's. ID will be in the numeric format.

SUBMISSION:

Here employee can view the ticket details of the users and can respond to their descriptions. Also can change the status from active to solved. The tickets raised by employee can also be checked. Also employee can raise a tickets to resolve his issues.

PROFILE:

In the profile, employee can see the complete personal details. That includes first name, last name, emp id etc..... also here we've included an option to reset the password.

The operations performed will be saved in the backend and employee can logout for maintaining the security.

4.1.3: Use Case Model of Client Account:

SUMMARY:

Clients can see the details of their existing bank accounts.

TRANSFER:

Here there are three options namely STANDARD TRANSFER, CURRENCY EXCHANGE and DEFINED TRANSFER. Transferring amount from one bank account to another can be done through standard transfer. Exchanging currency from one type to another within a client's account can be done through currency exchange. Transferring money in both standard and multi-currency from one account to another can be done through defined transfer.

EXCHANGE:

This option is only restricted for exchanging the currency type for specific account.

CREDITS:

Client/user can request for loans using new credits according to the installment duration to the employee. Client/user can check the status and details of the existing or completed loans using my credits. Even can pay the installments in my credits.

DEPOSITS:

The users can use this option to make the depository activities. User can deposit amount for their bank accounts. Also can check details and history of the older deposits.

SUBMISSION:

Client can raise a ticket to get the problems resolved or to request for any approvals.

PROFILE:

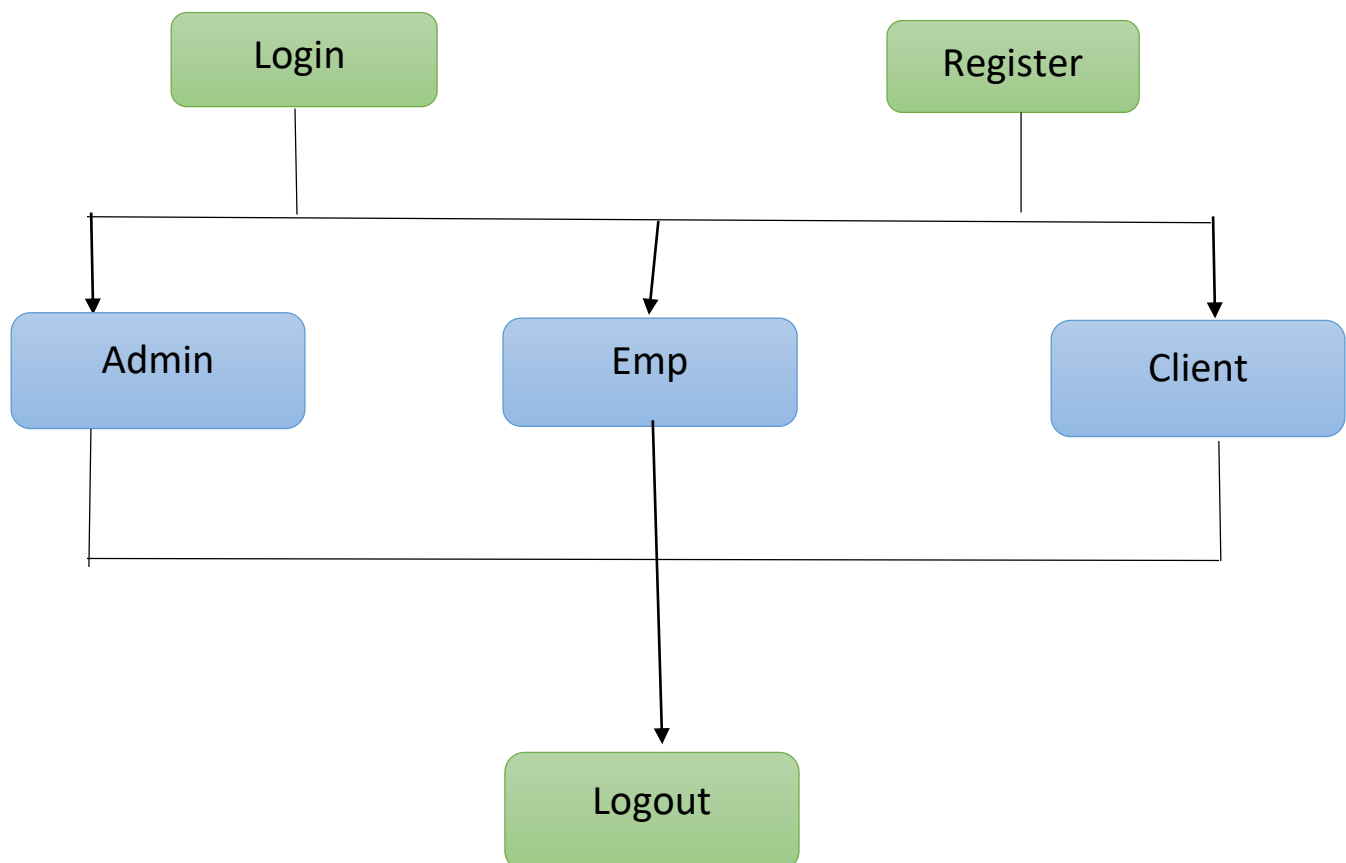
In the profile, client can see the complete personal details. That includes first name, last name, emp id etc..... also here we've included an option to reset the password.

The operations performed will be saved in the backend and client can logout for maintaining the security.

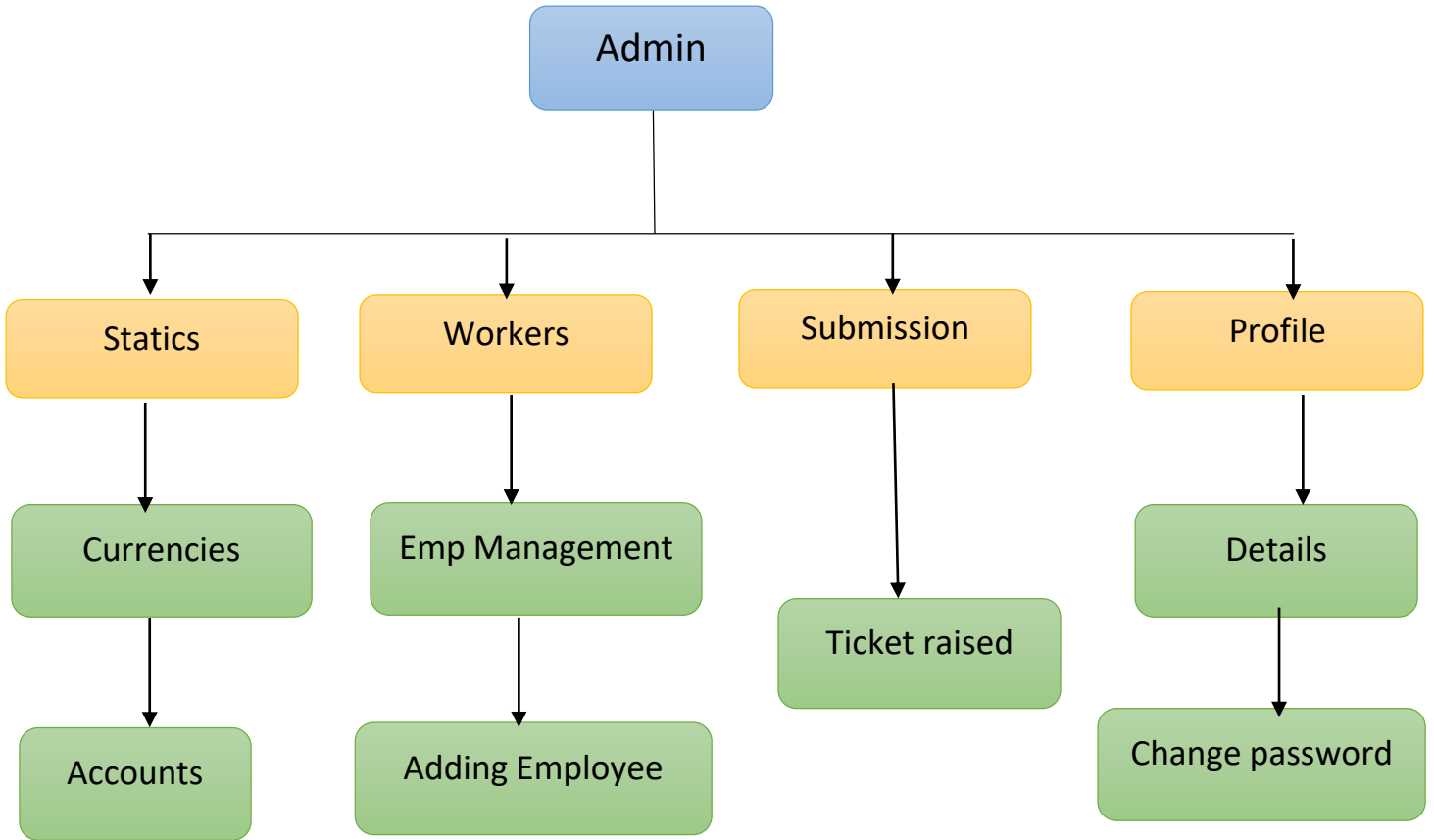
4.2 Sequence diagrams:

The sequences diagrams give you the complete pictorial explanation of the attributes used in this application and those might help's you get the clear view of our application.

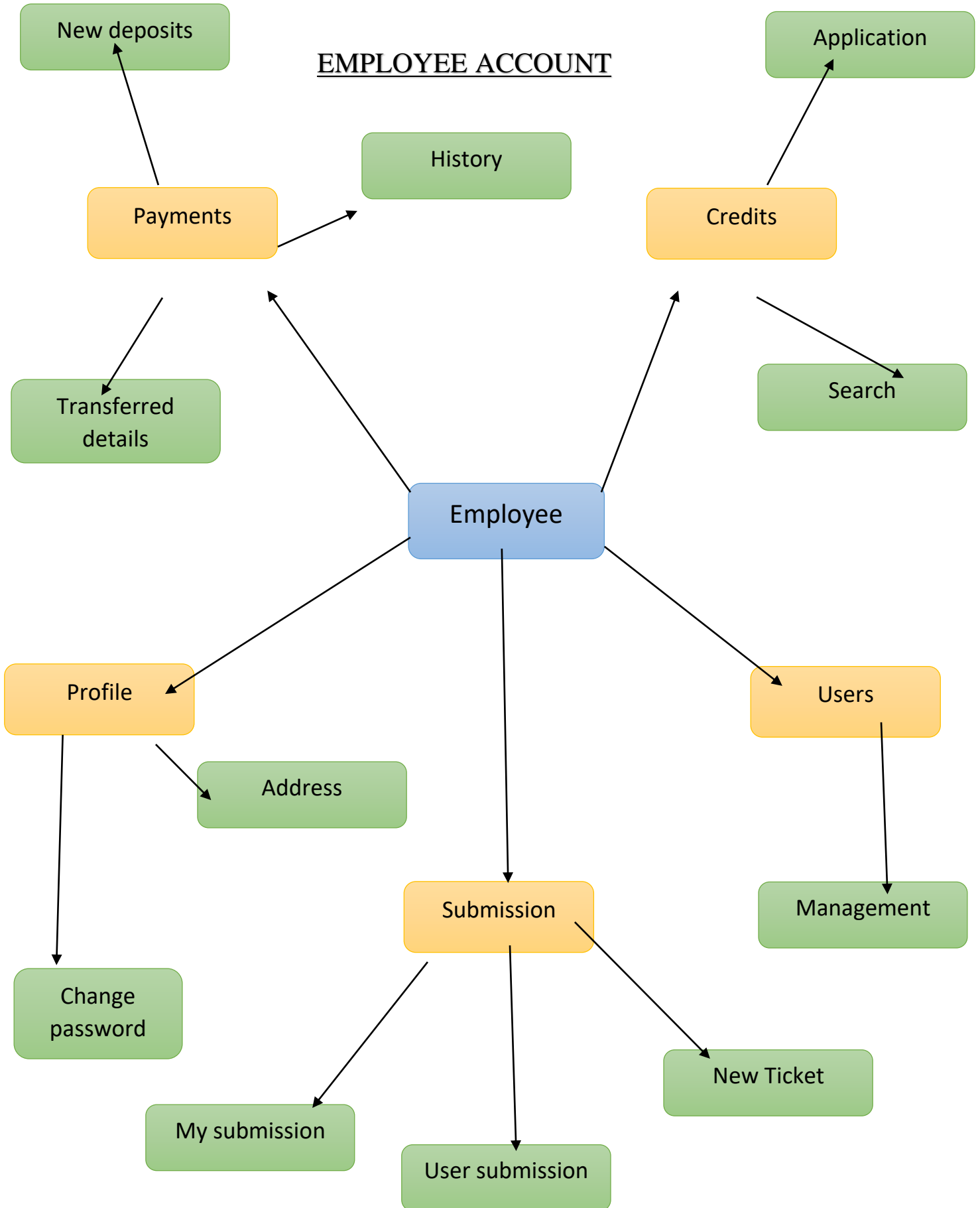
LOGIN AND REGISTRATION



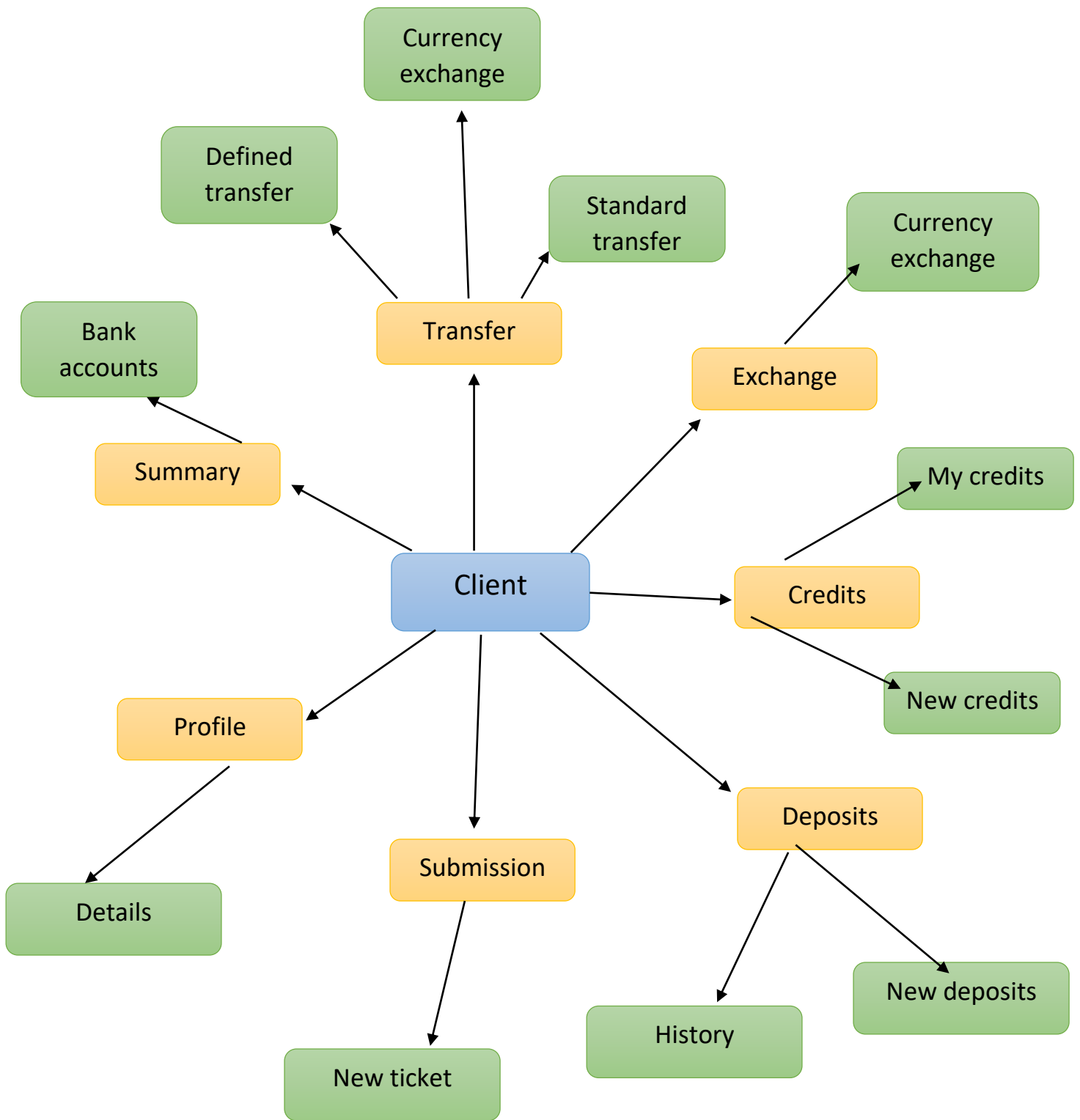
ADMIN ACCOUNT



EMPLOYEE ACCOUNT



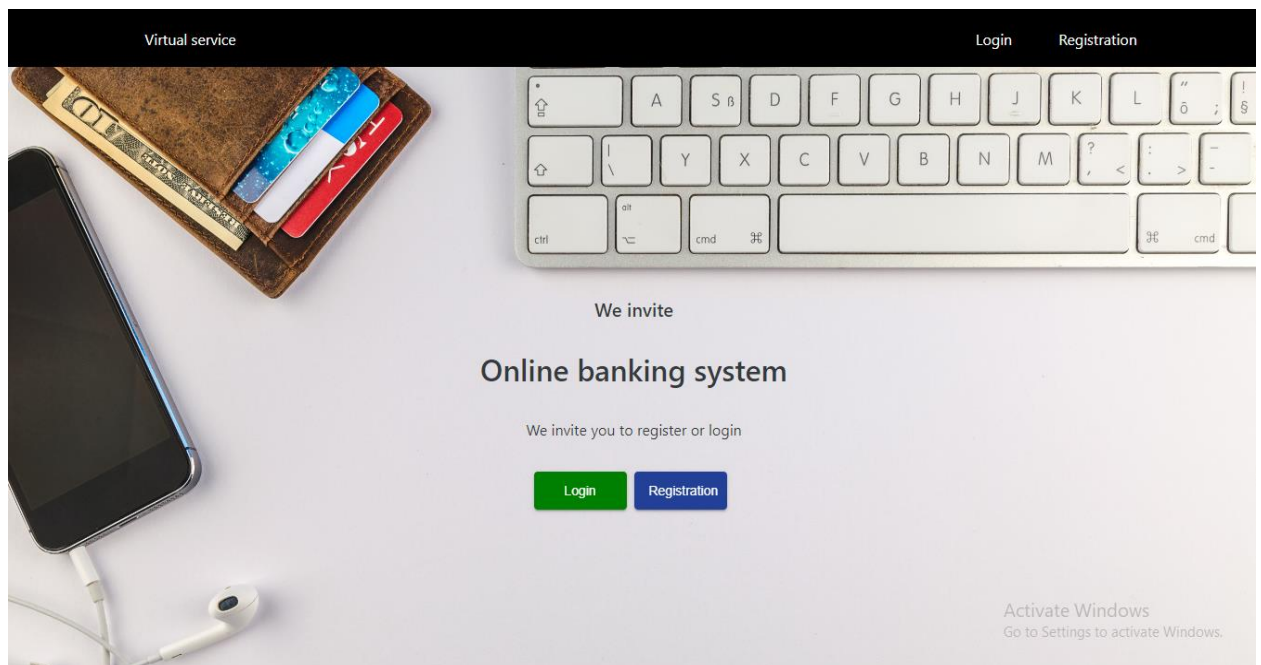
CLIENT ACCOUNT



5. PROPOSED USER INTERFACE AND DESIGNS.

Here we've added some of the screenshots of our web application.

HOME PAGE:



REGISTRATION PAGE:

Virtual service

Login

Registration

Registration

Password

Password confirmation

Adres email

Date of birth

Name

Last name

No phone

City

Street

Apartment number

ZIP code

Send

Activate Windows
Go to Settings to activate Windows.

Registration page includes:

- Password.
- Password conformation.
- Email address.
- Date of birth.
- Name.
- Last name.
- Phone number.
- City.
- Street.
- Applicant address.
- Zip code.

LOGIN PAGE:

Virtual service

Login

Registration

Login

ID

Password

Login

Activate Windows
Go to Settings to activate Windows.

Login page includes:

- ID.
- Password.

ADMIN ACCOUNT PAGE:

Virtual serviceIndexLog out

Statistics

Workers

Submissions

Profile

Employee management

ID	Email	Blocked	Details	Edition
33333333	jakub@jakubski.pl	Not	<button>View</button>	<button>Edit</button>
48576167	Lucaspw@yandex.ru	Not	<button>View</button>	<button>Edit</button>
79529876	new@gmail.com	Not	<button>View</button>	<button>Edit</button>
31875327	old@gmail.com	Not	<button>View</button>	<button>Edit</button>

Quantity per page: 50 z 0<>>>|

Adding an employee

Password

Password confirmation

Adres email

Date of birth

Activate Windows
Go to Settings to activate Windows.

The ADMIN account page includes:

- Statistics.
- Workers.
- Submissions.
- Profile.

EMPLOYEE ACCOUNT PAGE:

Virtual serviceIndexLog out

Payments

Credits

Users

Submissions

Profile

Payments

Add a new deposit

Bank account

Currency

Sum

Send

Payments

Search

Sum	Multi-currency	Soup
€87.00	January 27, 2022 5:40 PM	67 8067

Activate Windows
Go to Settings to activate Windows.

The EMPLOYEE account page includes:

- Payments.
- Credits.
- Users.
- Submissions.
- Profile.

CLIENT ACCOUNT PAGE:

Virtual serviceIndexLog out

Summary

Transfers

Standard transfer

Currency transfer

Defined transfers

Exchange

Credits

Deposits

Submissions

Profile

Standard transfer

1 Form

2 Summary

3 End

Select a bank account

Bank account

On Bill

Recipient's account *

Sum

The title

Amount *

Title *

Next

Activate Windows
Go to Settings to activate Windows.

The CLIENT account page includes:

- Summary.
- Transfers.
- Exchange.
- Deposits.
- Submission.
- Profile.

6. CONSTRUCTION STRATEGY AND RE-USE:

This application is Maven based application. To implement this banking management application, we used HTML and CSS to design the front-end also used angular framework. For functionality we've used Spring concepts and Junit for testing. Hibernate framework is used for connectivity to the backend.

For coding and creating the database we used:

- Eclipse 2021-09 (J2EE)
- Oracle 11g Express Edition
- Visual Studio Code

7. TECHNOLOGIES USED:

- **Spring (Boot, Data, JPA, MVC)**
- **HTML & CSS**
- **Angular 8**
- **Hibernate**
- **Junit**
- **Maven**