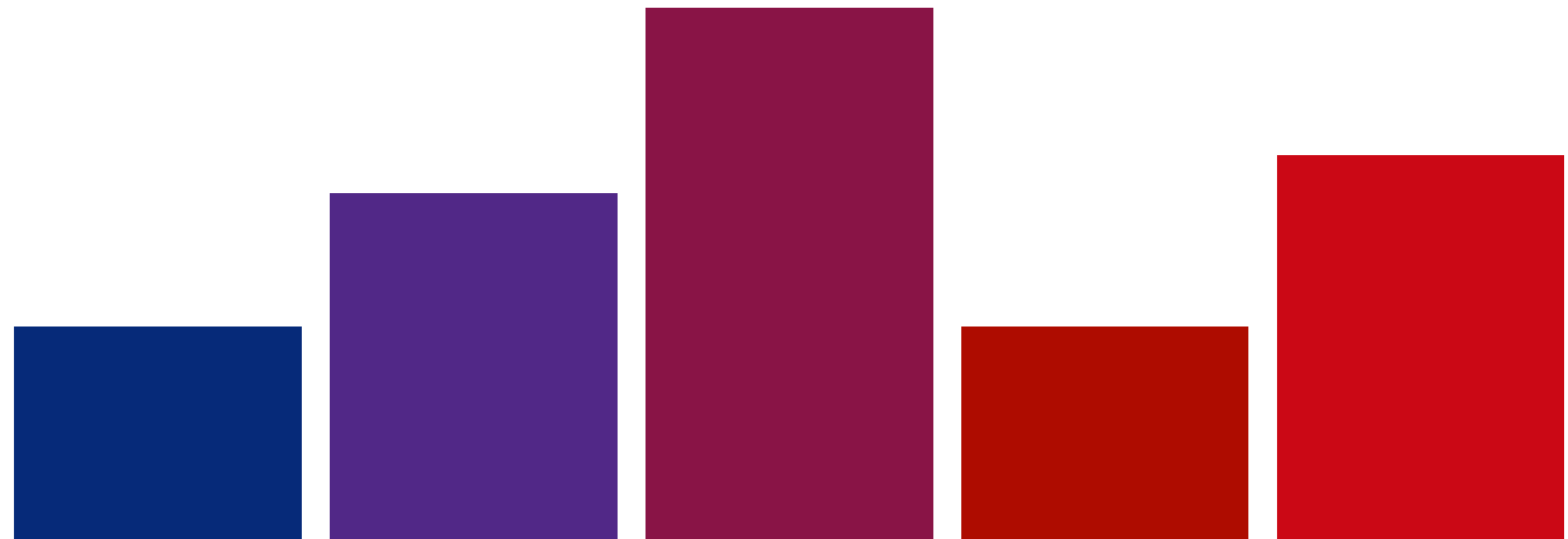




## CPE241 : Database : Online Banking



Always serve the right choice





# MEMBERS



3410  
Shayathip Dumkum



3429  
Nichapa Leesakul



3438  
Prommate Wudhikanakorn



3462  
Jutamas Poompruek



3479  
Yosawat Udomsakpaibool



**WELCOME TO OUR ONLINE BANK**

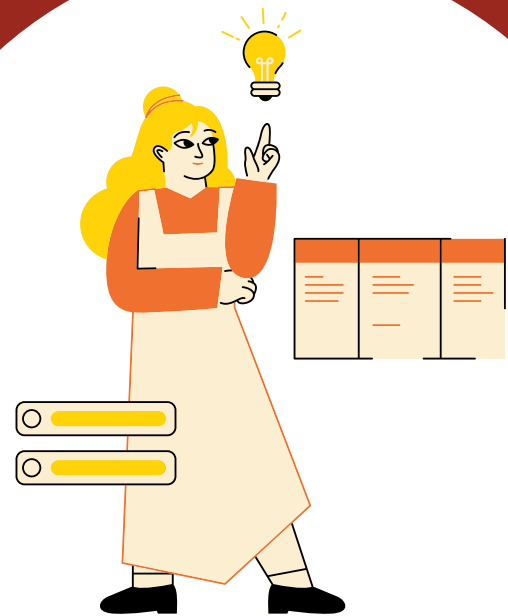




There are also some details which we have controlled on this BNLTT banking system, there are:

1. Even if account is suspended, it will not affect card status.
2. Recipient Account Number always come from another bank.
3. In order to have a credit card, the customer need to has their bank account first.
4. One Customer can have many Loan
5. In all the transactions, the money will only be transferred immediately from the bank account.

# Roles of Users



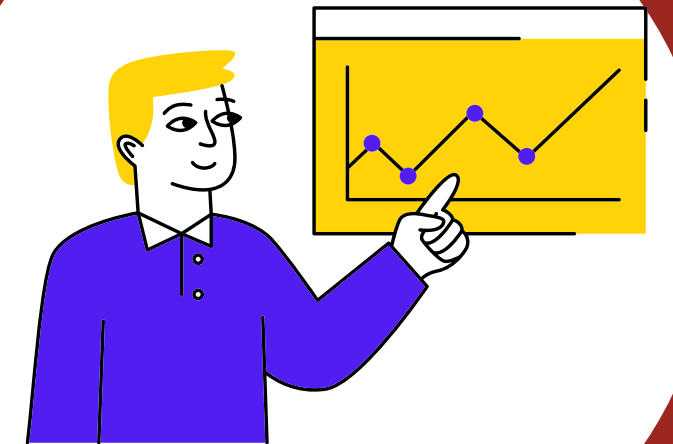
CUSTOMER



EMPLOYEE



SUPERVISOR



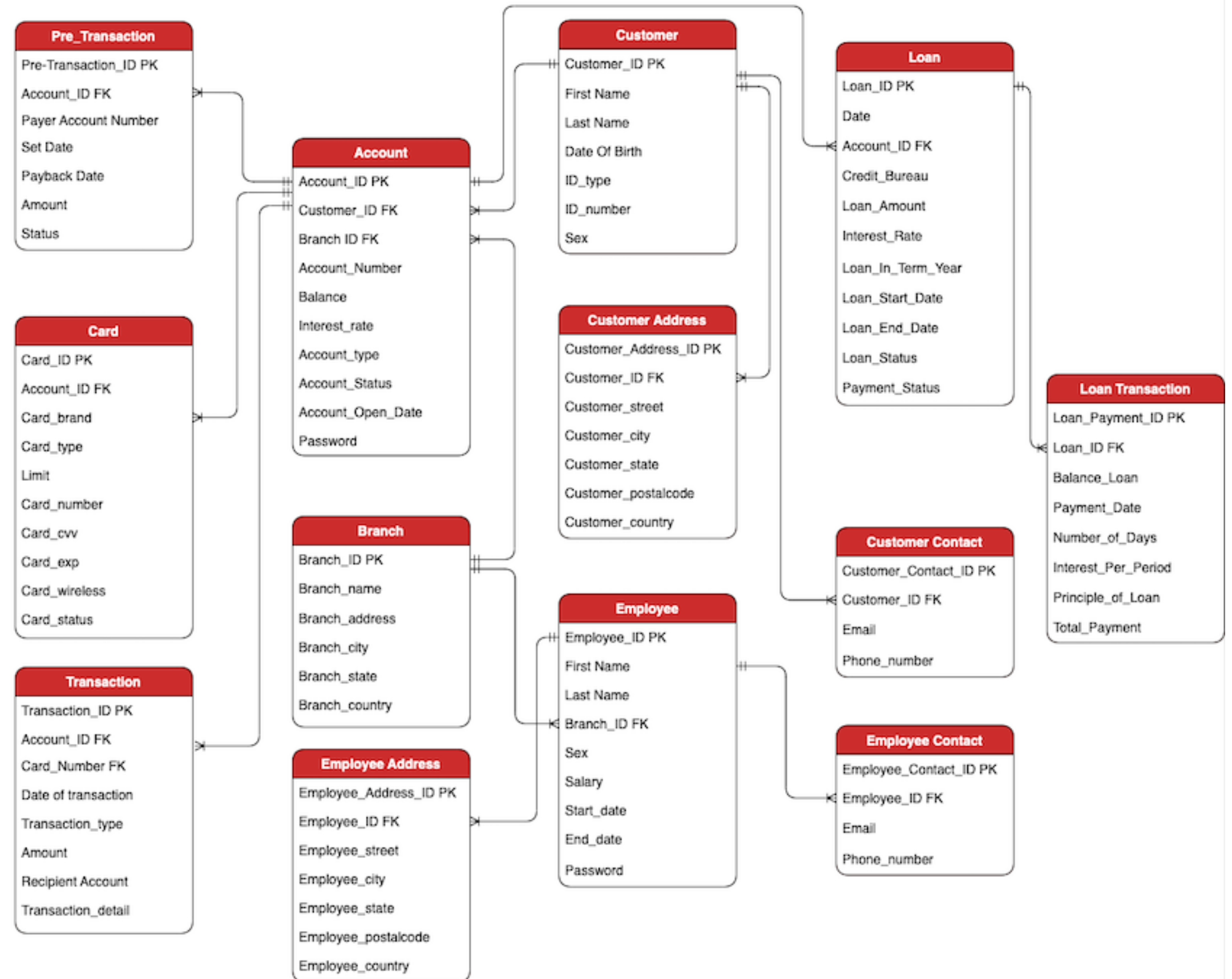
MANAGER

# USER VIEW

	Customer	Employee	Supervisor	Manager
Customer	-	add, edit, delete, view	edit, view	edit, view
Customer Address	-	add, edit, delete, view	edit, view	edit, view
Customer Contact	-	add, edit, delete, view	edit, view	edit, view
Employee	-	-	add, edit, delete, view	add, edit, delete, view
Employee Address	-	-	add, edit, delete, view	add, edit, delete, view
Employee Contact	-	-	add, edit, delete, view	add, edit, delete, view
Transaction	-	edit, view	edit, view	add, edit, delete, view
Pre-transaction	-	edit, view	add, edit, delete, view	add, edit, delete, view
Account	-	edit, view	add, edit, delete, view	add, edit, delete, view
Card	-	add, edit, delete, view	add, edit, delete, view	add, edit, delete, view
Branch Table	-	view	add, edit, delete, view	add, edit, delete, view
Loan	-	edit, view	edit, view	add, edit, delete, view
Loan Transaction	-	edit, view	add, edit, delete, view	add, edit, delete, view

# ER-Diagram

The ER-Diagram of the Online banking system consist of 13 tables.



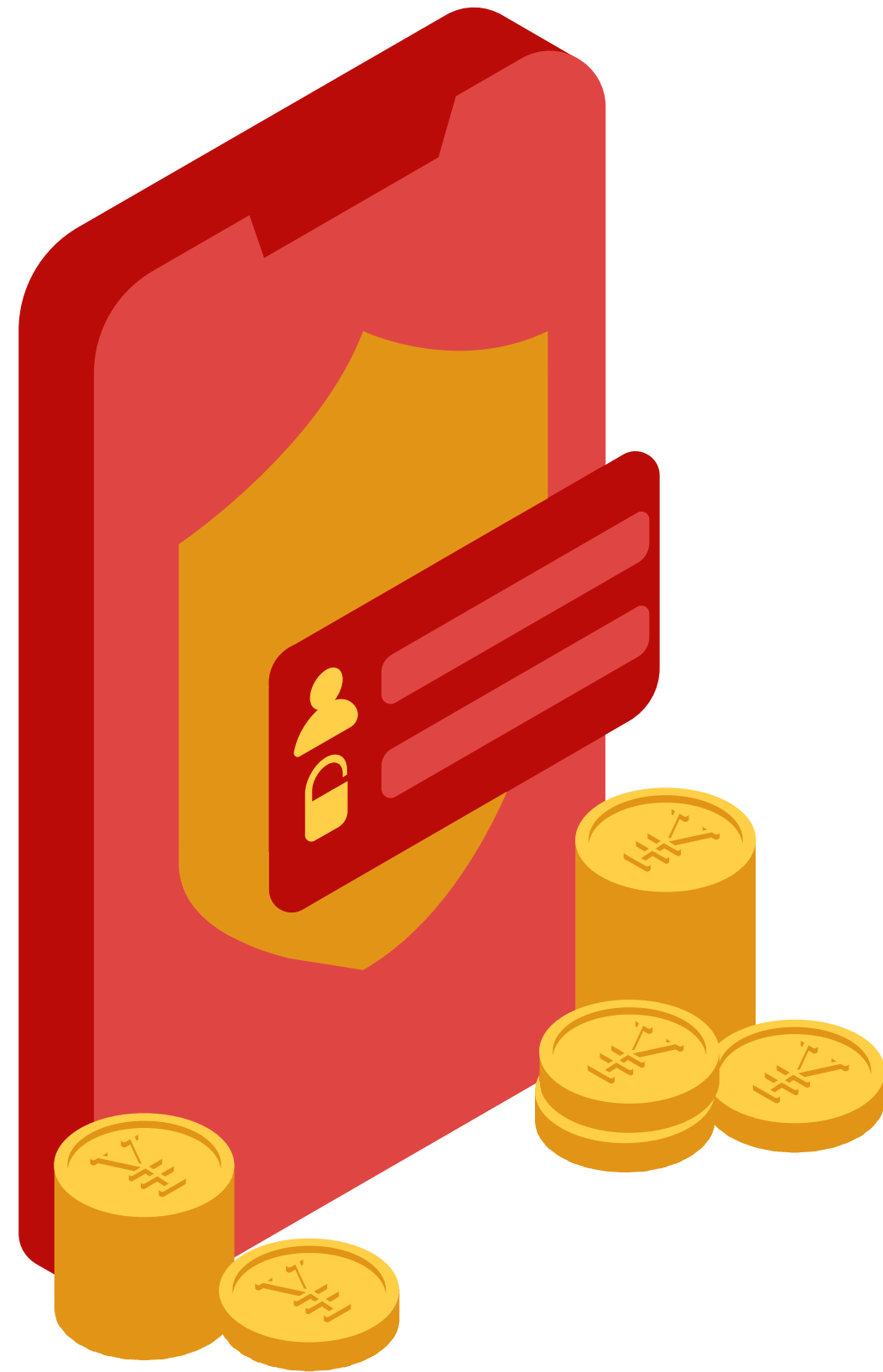


# TRANSACTION FORMS

Let's take a look of our BNLTT online banking system.







# CUSTOMER's ACCESS

# CUSTOMER's TRANSACTIONS

Complex transactions

Account Register Form

Pay Alert Form

Transfer Form

Loan Form

Simple transactions

Update phone number

Update E-mail

Update address





# CUSTOMER's

## Complex Transaction Form

# Customer Welcome Page



Welcome to the BNLTT

Login

Sign Up

# Sign Up : Account Register Form

## Account Register Form



**ID type:**  
Choose an option

**ID Number:**  
Enter ID number

**First Name:**

**Last Name:**

**Date of Birth:**  
29/05/2023

**Sex:**  
☐ Male ☐ Female

**Address:**  
Street  
City  
State  
Postal Code  
Country

**Phone Number:**

**Email:**

**Account Type:**  
Choose an option

**Branch:**  
Select Branch

**Password:**  
Enter Password

**Confirm Password:**  
Enter Confirm Password

Register

Back

Account Table

Customer Table

Customer Address Table

Customer Contact Table

# Customer Welcome Page



Welcome to the BNLTT

Login

Sign Up

# Login Page



## Account Login

Always serve the right choice

 Account Number

 Password

Sign in

Back



# Home Page



Welcome, Conn! Account Number: 955-4-75016-5

Always serve the right choice

Balance: 6809\$

PayAlert

Transfer

Loan

Change Information

Logout

# Pay Alert Form

## Payment Alert Form

Receiver:


First Name

Last Name

Amount (\$):

0

Due Date:

mm/dd/yyyy 

Insert

Back

Pre-Transaction Table

---

Transaction Table

---

Account Table

---

# Transfer Form

## Transfer



Money Transaction

With credit/debit card

Without credit/debit card

Back

# Transfer Form

(with debit card)

## Transfer Form



Card Number:

Transaction Type:

Withdraw ▾

Amount:

Transaction Detail:

Password:

Transfer

Back

Transaction Table

Account Table

# Transfer Form

## Transfer Form



Card Number:

Transaction Type:

Recipient Number:

Amount:

Transaction Detail:


Password:

Transfer

Back

# Transfer Form (without debit card)

Transfer Form



Transaction Type:  

Withdraw

Amount:

Transaction Detail:

Password:

Transfer

Back


# Loan Request

## LOAN FORM

Credit Bureau:

☐ AA ☐ BB ☐ CC ☐ DD ☐ EE ☐ FF ☐ GG ☐ HH

Loan Type:

WealthWave: Interest Rate 2% per year, 2 years of contract, Minimum 50000\$ Not Exceed 1 

Loan Amount:

Loan Year:

Start Date:

Submit


Back

Loan Table

Loan TransactionTable



# Loan Payment

Loan Payment 

Loan ID:

Payment Date:

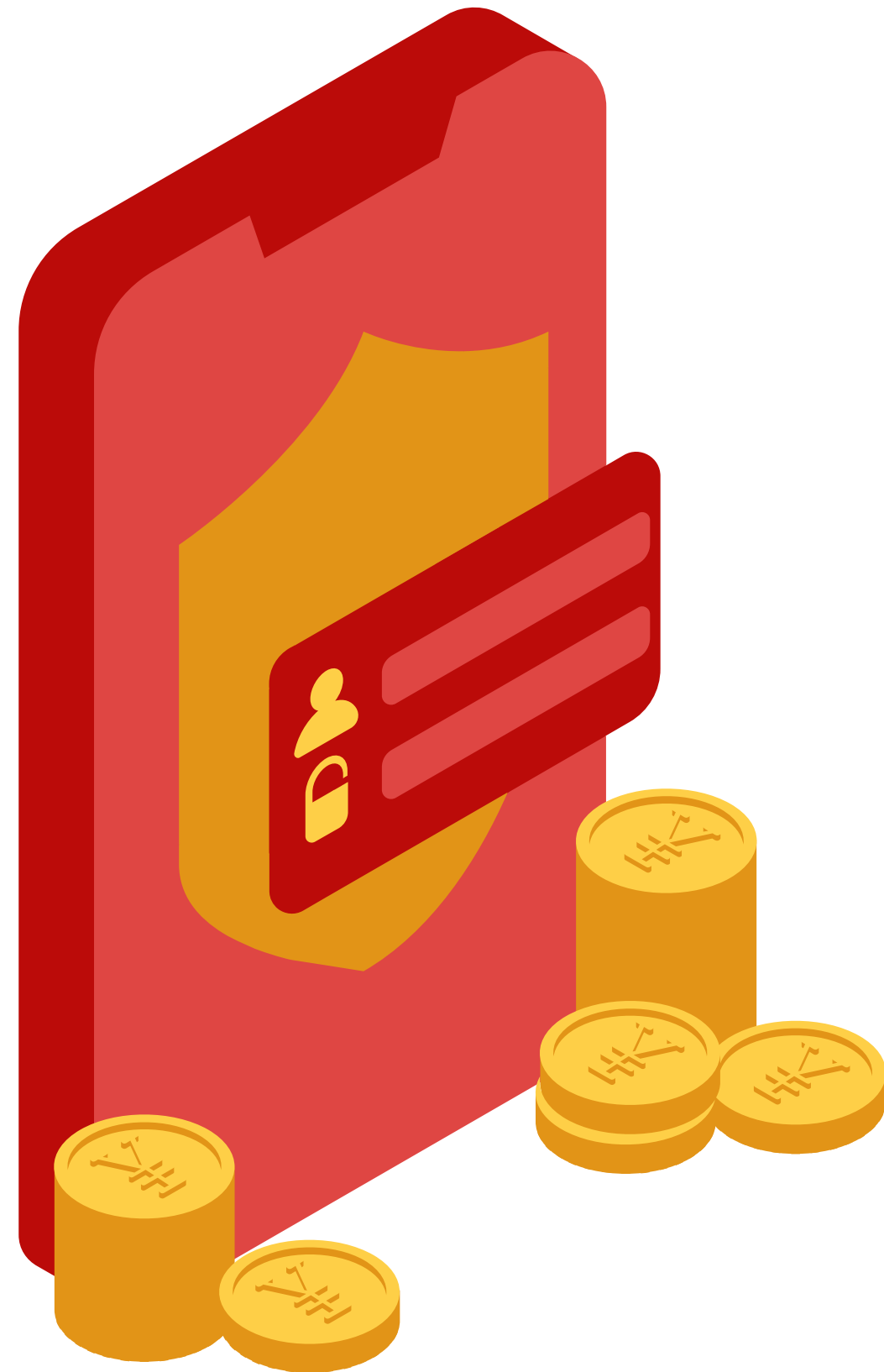
2023-05-28

Confirm Payment

Back

Loan Table


Loan TransactionTable



# CUSTOMER's

## Simple Transaction Form

# Password Verification

Account Verification 


Password:

Continue

Back

# Update's Menu

Change Account Information



Change Email

Change Phone Number

Change Address

Back

# Update Email

## Update Email

Old Email:

Conn12@outlook.com

New Email:


Update

Back

Customer Contact Table

---

# Update Phone Number

Change Phone Number 

Enter New Phone Number:


Update

Back

Customer Contact Table

---

# Update Address

Change Address 

Street:

City:

State:

Postal Code:

Country:

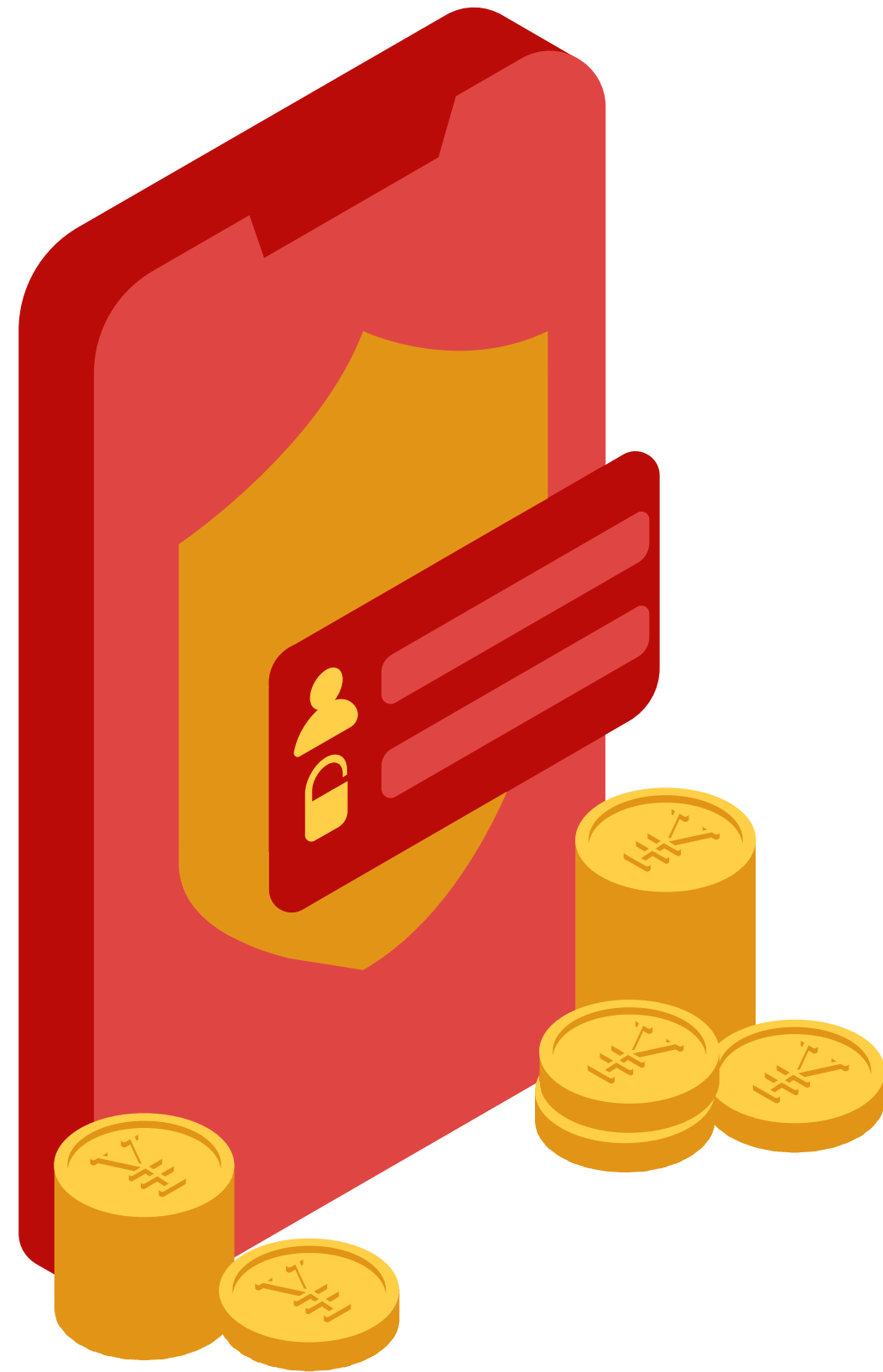
Update

Back

## Customer Address Table

---





# EMPLOYEE's ACCESS

# EMPLOYEE's TRANSACTIONS

Complex transactions

Employee Account  
Register Form

Simple transactions

Update Loan status  
Update Card status



# Employee Welcome Page



BNLTT Employee

Login

Register

# Employee Registration Form

## Employee Registration Form



First Name:

Last Name:

Sex:

☐ Male ☐ Female

Address:

Street

City

State

Postal Code

Country

Branch:

Select Branch

ID type:

Choose an option

ID Number:

Enter ID number

Date of Birth:

29/05/2023

Email:

Phone Number:

Password:

Enter Password

Confirm Password:

Enter Confirm Password

Submit

Back

Account Table

Employee Table

Employee Address Table


Employee Contact Table


# Employee Login Page



## Employee Login

Always serve the right choice

 Employee Email

 Employee Password

Login

Back

# Employee Home Page

Welcome, Employee



Account Analysis

Update Loan Status

Update Card Status

Logout




# EMPLOYEE's

## Simple Transaction Form



# Update Loan Status

Update Loan Status 

Loan ID:

Loan Status:

Approve


Update

Back

Loan Table

---

# Update Card Status

Update customer's card status 

Customer's Card Number:

Card Status:

Active

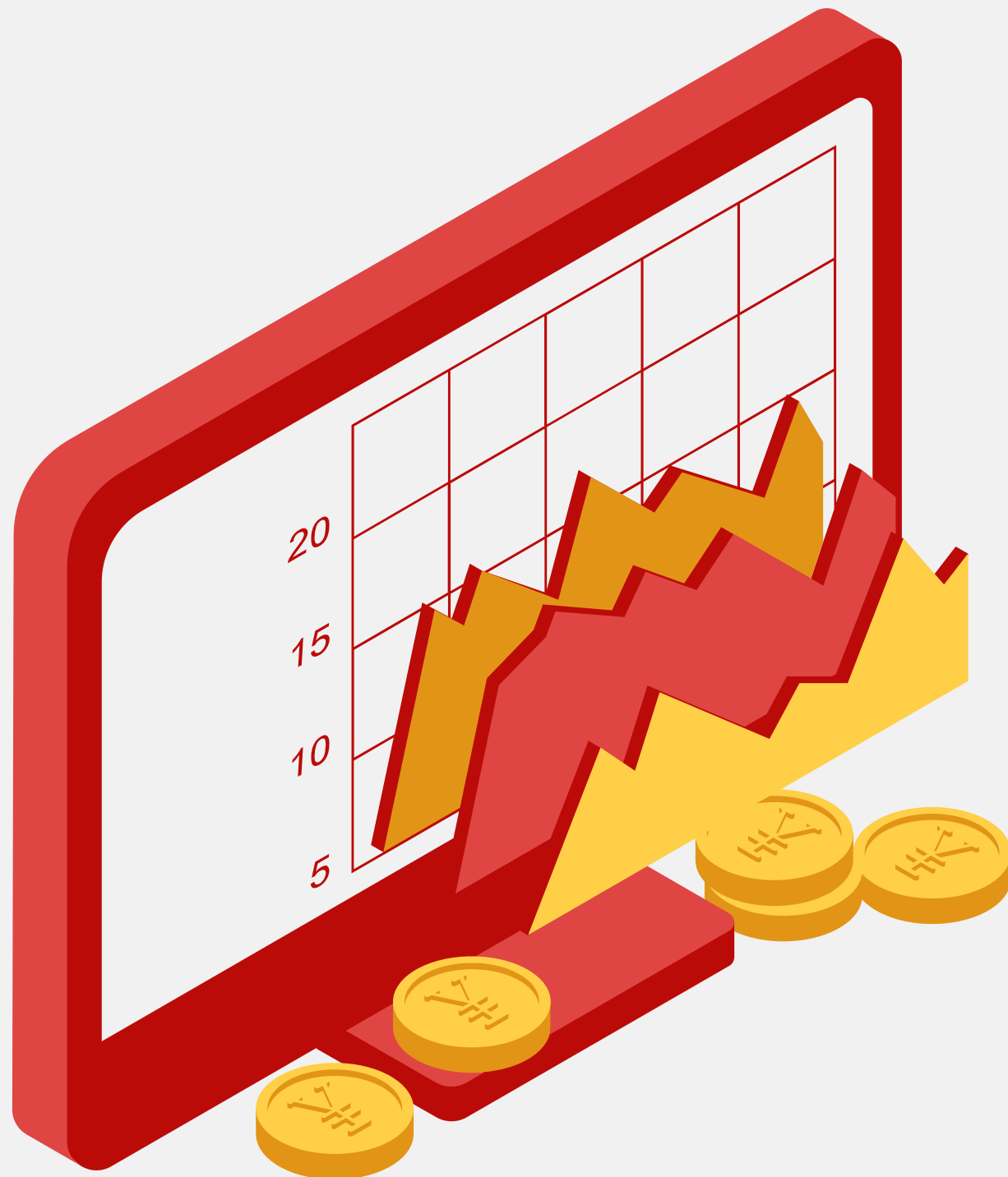
Update

Back

Card Table

---

# Analysis Report



- Top 10 Spender Average amount
- Top 10 people with the most deposits
- Top 3 country that people spend the most in our bank
- Top 3 branches that have the most active card with its average balance
- List of people that has been suspended account

# Analysis Report: Top 10 Balance Users

Analysis Report	Highest Balance	Average Transaction Amount	Suspended Account	Highest Total Transaction Amount	Branches with Highest Card Count
-----------------	-----------------	----------------------------	-------------------	----------------------------------	----------------------------------

Top 10 Balance Users

First Name	Last Name	Account ID	Account Number	Account Type	Card Number	Balance
Joslyn	Torres	20	552-5-61075-5	Salary	3963-7656-4956-3107	176078
Katalina	Lewis	12	314-3-83588-8	Saving	2273-8383-5985-8420	101280
Everlee	Clark	9	239-6-66252-8	Saving	3080-4660-1727-4070	18553
Kenya	Cooper	14	483-0-68210-4	Salary	8208-1262-2756-5653	18106
Reigo	Vita	4	603-3-86996-1	Saving	1245-6398-7596-4528	16233
Saanvi	Lee	8	560-9-24137-5	Salary	8925-8174-6333-8214	15842
Aldo	Walker	11	141-7-59689-6	Salary	8628-7206-6964-9848	15526
Sasha	Sadr	7	616-8-76506-3	Fixed deposit	7239-5269-9416-1757	12971
Ryland	Howard	13	785-5-55096-2	Fixed deposit	4268-597-1245-6385	12765
Vendelín	Sushila	5	179-9-14024-3	Saving	5303-6898-8576-3532	12371

Account Table

Transaction Table

Customer Table

# Analysis Report: Top 10 Spenders Average by Transaction Amount

Analysis Report

Highest Balance

Average Transaction Amount

Suspended Account

Highest Total Transaction Amount

Branches with Highest Card Count

Account Table

Card Table

Customer Table

Top 10 Spenders Average Amount

Ranking	Account Number	Customer ID	ID Card	First Name	Last Name	Amount	Total Amount	Transaction Count	Average Amount
1	11	11	89745366	Aldo	Walker	90000	98230	3	32743.3333
2	14	14	69876545	Kenya	Cooper	7317	7317	1	7317.0000
3	4	4	12345678	Reigo	Vita	5361	5361	1	5361.0000
4	6	6	95310106	Hazel	Robinson	3198	15333	3	5111.0000
5	18	18	19878966	Romina	Garcia	4500	4500	1	4500.0000
6	3	3	456345111	Tijmen	Bóthildr	11000	13100	3	4366.6667
7	13	13	12123121	Ryland	Howard	10000	11190	3	3730.0000
8	9	9	58776500	Everlee	Clark	3388	3388	1	3388.0000
9	5	5	98765432	Vendelín	Sushila	3323	3323	1	3323.0000
10	16	16	69445739	Antonio	Ryan	1423	1423	1	1423.0000

# Analysis Report:

## Top 3 Accounts by Total Transaction Amount

Analysis Report

Highest Balance

Average Transaction Amount

Suspended Account

Highest Total Transaction Amount

Branches with Highest Card Count

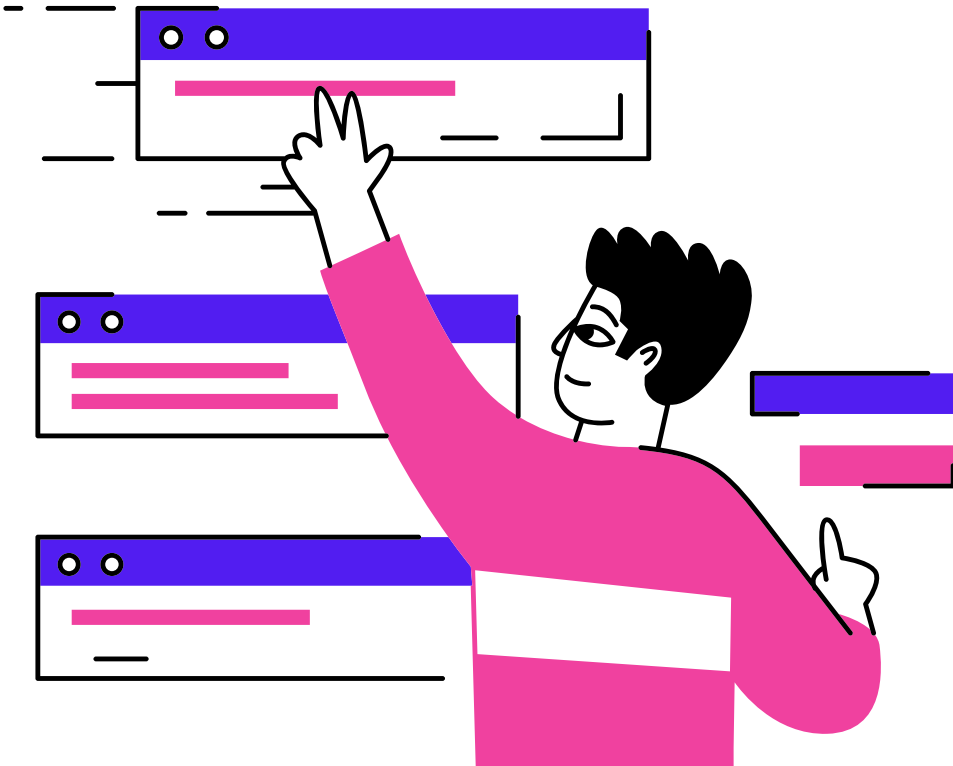
Account Table

Top 3 Accounts by Total Transaction Amount

Rank	Account ID	Country	Amount
1	11	Australia	98230
2	6	USA	15333
3	3	England	13100

Transaction Table

Customer Table



# Analysis Report:

## Top 3 Branches with Most Active Cards

Analysis Report

Highest Balance

Average Transaction Amount

Suspended Account

Highest Total Transaction Amount

Branches with Highest Card Count

### Top 3 Branches with Most Active Cards

Rank	Branch	Amount of Card	Account	Average Balance
1	1	5	1, 2, 3, 4, 11	10455.0000
2	2	4	5, 6, 7, 12	33677.2500
3	3	3	13, 14, 15	10791.6667

Branch Table

Card Table

Account Table



# Analysis Report: People with Suspended Account

Analysis Report

Highest Balance

Average Transaction Amount

Suspended Account

Highest Total Transaction Amount

Branches with Highest Card Count

People with Suspended Account

Customer ID	First Name	Last Name	Account ID	Account Number	Type Of Account	Number of Own Cards	Type of Own Cards	Status
2	Sita	Philo	2	388-2-71037-9	Fixed deposit	1	Credit	Suspended
3	Tijmen	Bóthildr	3	545-8-68220-5	Salary	1	Credit	Suspended
11	Aldo	Walker	11	141-7-59689-6	Salary	1	Credit	Suspended
17	Elliot	Edwards	17	902-2-75857-0	Fixed deposit	1	Debit	Suspended
18	Romina	Garcia	18	503-4-80296-7	Fixed deposit	1	Credit	Suspended

Account Table

Card Table

Customer Table





# BNLTT Online Banking's DEMO





# THANK YOU FOR YOUR ATTENTIONS

Do you have any questions?

