PAYMENT APP

C PROCJECT

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Project Introduction

Payment systems are now available everywhere and everyone interacts with these systems every day. There are different types of transactions you can make, SALE, REFUND, Pre-Authorization, and VOID.
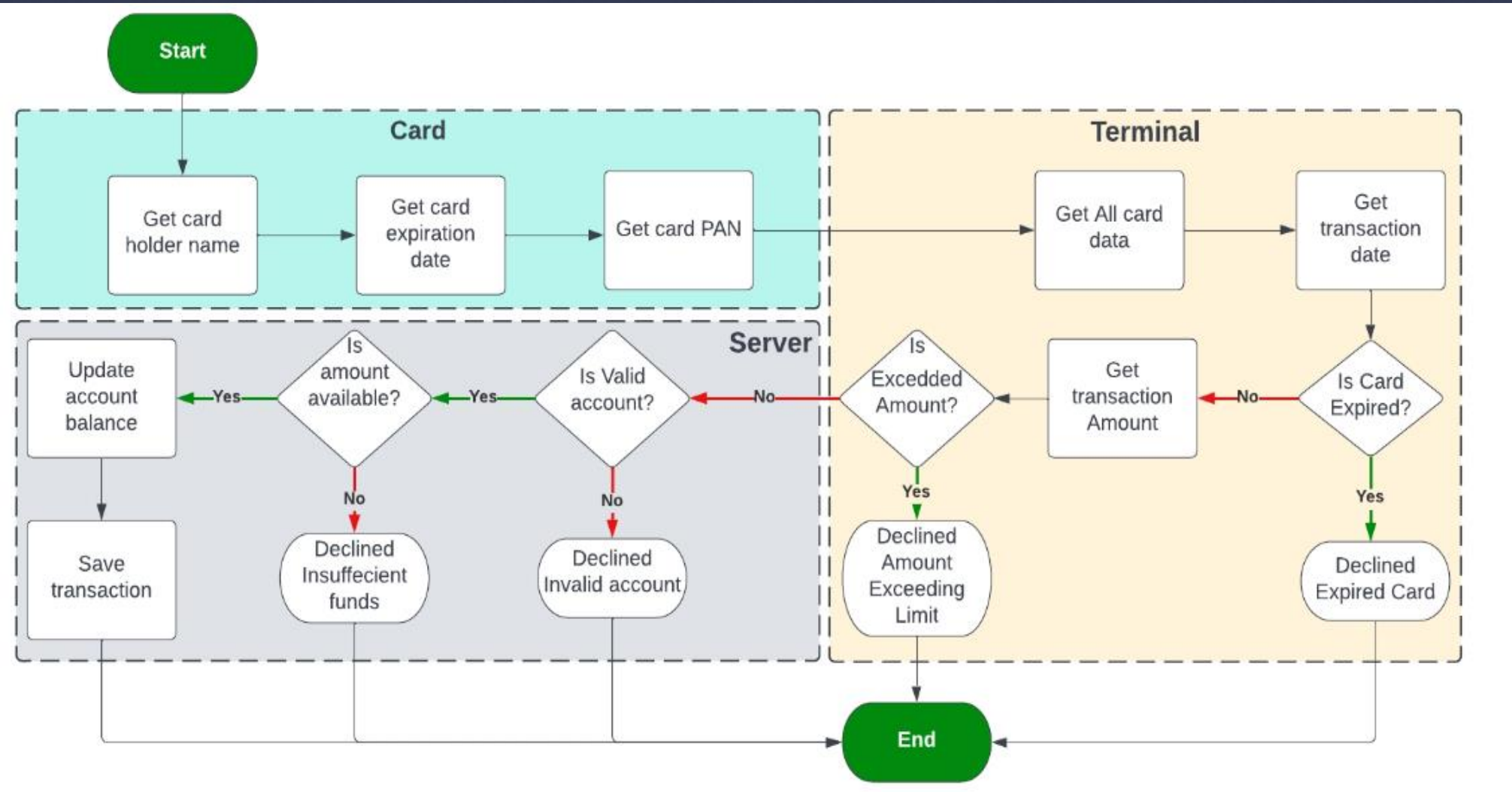
1. **SALE:** means to buy something and its price will be deducted from your bank account.
2. **REFUND:** this means that you will return something and wants your money back to your bank account.
3. **Pre-Authorization** means holding an amount of money from your account, Hotel reservation.
4. **VOID:** this means cancelling the transaction if the seller entered the wrong amount.
5. In this project, I am implementing the SALE transaction only by simulating the card, terminal(ATM), and server.

Project Steps:
1. Development environment preparation
2. Implement the card module
3. Implement the terminal module
4. Implement the server module
5. Implement the application
6. Testing the application

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APPLICATION FLOWCHART

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DETAILS ABOUT 6 MAIN TASKS OF THE PROJECT

1- Development environment preparation

- Create modules folders
- Create .c and .h file for each module
- Add header file guard
- Create the main.c file

2- Implement the card module

- Fill in terminal.h file with functions' prototypes and typedefs
- Implement getTransactionDate function
- Implement isCardExpried function
- Implement gatTransactionAmount function
- Implement isBelowMaxAmount function
- Implement setMaxAmount function

3- Implement the terminal module

- Fill in terminal.h file with functions' prototypes and typedefs
- Implement getTransactionDate function
- Implement isCardExpried function
- Implement gatTransactionAmount function
- Implement isBelowMaxAmount function
- Implement setMaxAmount function

4- Implement the server module

- Fill in server.h file with functions' prototypes and typedefs
- Implement server-side accounts' database
- Implement server-side transactions' database
- Implement recieveTransactionData function
- Implement isValidAccount function
- Implement isAmountAvailable function
- Implement saveTransaction function

5- Implement the application

- Fill in application.h file with functions' prototypes
- Implement appStart function

6-Testing the application

- Transaction approved user story
- Exceed the maximum amount user story
- Insufficient fund user story
- Expired card user story
- Invalid card user story

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