Problem Statement.

Jiya Stroder, Denah Thach, Nicholas Day

Problem Statement:

Managing and accessing personal finances is a critical aspect of individuals' daily lives. Traditional banking systems, while effective, may not always provide the level of convenience and accessibility that modern users expect. Team Seven's proposed project aims to address this challenge by developing a comprehensive ATM System, providing users with a convenient and secure way to manage their finances.

Functionalities:

No:	Priority Weight: H M L	Name:	Description:
TIC #1:	***H***	**Security Breaches.**	The most critical issue is security. A system can be implemented to enhance the security of ATM transactions, such as two-factor authentication, biometric verification, and encryption of data.
TIC #2:	***H***	**Insufficient Cash.**	ATMs running out of cash is a common problem. A system can be implemented to monitor cash levels and alert the bank when it's time to refill.
TIC #3:	***H***	**Outdated Software.**	ATMs with outdated software can be prone to glitches and security vulnerabilities. A system for regular software updates can help resolve this issue.
TIC #4:	***H***	**Card Skimming.**	This is a method used by criminals to capture

			data from the magnetic stripe on the back of an ATM card. A system can be implemented to detect and prevent skimming devices.
TIC #5:	***M***	**Transaction Failures.**	Sometimes, transactions fail due to network issues or server problems. A robust system can ensure seamless connectivity and backup servers to prevent transaction failures.
TIC #6:	***M***	**Long Queues.**	During peak hours, queues can be long. A system that speeds up transactions or allows for scheduling withdrawals can help.
TIC #7:	***M***	**Poor User-Interface.**	Some ATMs have complex interfaces that confuse users. A system with a user-friendly interface can improve the user experience.
TIC #8:	***L***	**Inadequate Receipt Information.**	Sometimes, ATMs do not provide enough information on receipts. A system can be implemented to provide detailed transaction information.
TIC #9:	***L***	**Lack of accessibility.**	Not all ATMs are accessible to people with disabilities. A system that includes features like voice

			guidance, braille, and wheelchair accessibility can resolve this issue.
TIC #10:	***L***	**Limited Services.**	Some ATMs only provide basic services. A system can be implemented to offer additional services like bill payments, fund transfers, and mobile top-ups.
TIC #11:	***M***	**Automated Log Out of Session.**	5-10 seconds after your transactions it removes all the account information and re-access the account by inputting your bank card and pin to access your account information again.
TIC #12:	***H***	**Cash Withdrawals.**	The ability for users to withdraw a specified amount of cash from their bank account using the ATM, including handling different denominations, and ensuring proper account verification.
TIC #13:	***H***	**Balance Inquiries.**	This ability for users to check their account balance and view recent transactions using the ATM.
TIC #14:	***H***	**Fund Transfers.**	The ability for users to transfer funds between different accounts (e.g., checking to savings) or make payments to other accounts or service

			providers through the ATM.
TIC #15:	***H***	**Deposit Functions.**	The ability for users to deposit cash or checks into their account using the ATM. This may involve advanced features like automated check scanning for verification and validation.
TIC #16:	***H***	**Pin Management.**	The ability for users to change their personal identification number (PIN) at the ATM, ensuring secure access to their account.
TIC #17:	***H***	**Card Management.**	The capability to handle different types of bank cards (e.g., credit cards, debit cards) and manage card-related operations such as activation, replacement, or cancellation.

Nonfunctional Requirements:

Priority	**Category**	**Description**
High	Reliability	The ATM system should have high availability, ensuring that it is operational and accessible 24/7.
High	Usability	The user interface must be intuitive and user-friendly to facilitate ease of use for customers.
Medium	Performance	Transactions should be processed swiftly, and

		response times must be kept within acceptable limits.
Medium	Supportability	The system should be designed with maintainability and ease of troubleshooting in mind for efficient support.
Low	Functionality	The core functions of the ATM, such as cash withdrawals, balance inquiries, and fund transfers, must be reliable and accurate.

Functionality: Functionality refers to the core features and capabilities of the ATM system, which are directly related to its primary purpose and tasks. Here are some examples of the functional requirements of an ATM:

Usability: This refers to the ease of use and the user experience of the ATM. It includes factors such as the clarity of instructions on the screen, the intuitiveness of the interface, and the accessibility features for individuals with disabilities.

Reliability: This refers to the ATM's ability to perform consistently and accurately without failures or errors. It includes factors such as uptime, error handling, and the prevention of unauthorized access.

Performance: This refers to the speed and responsiveness of the ATM. It includes factors such as transaction processing time, response time for user interactions, and handling concurrent user requests efficiently.

Supportability: This refers to the ATM's ease of maintenance, manageability, and adaptability. It includes factors such as the availability of software updates, the ease of troubleshooting, and the ability to integrate new features or technologies.

User Interface Requirements: *_See Below_*

Plan of Work:

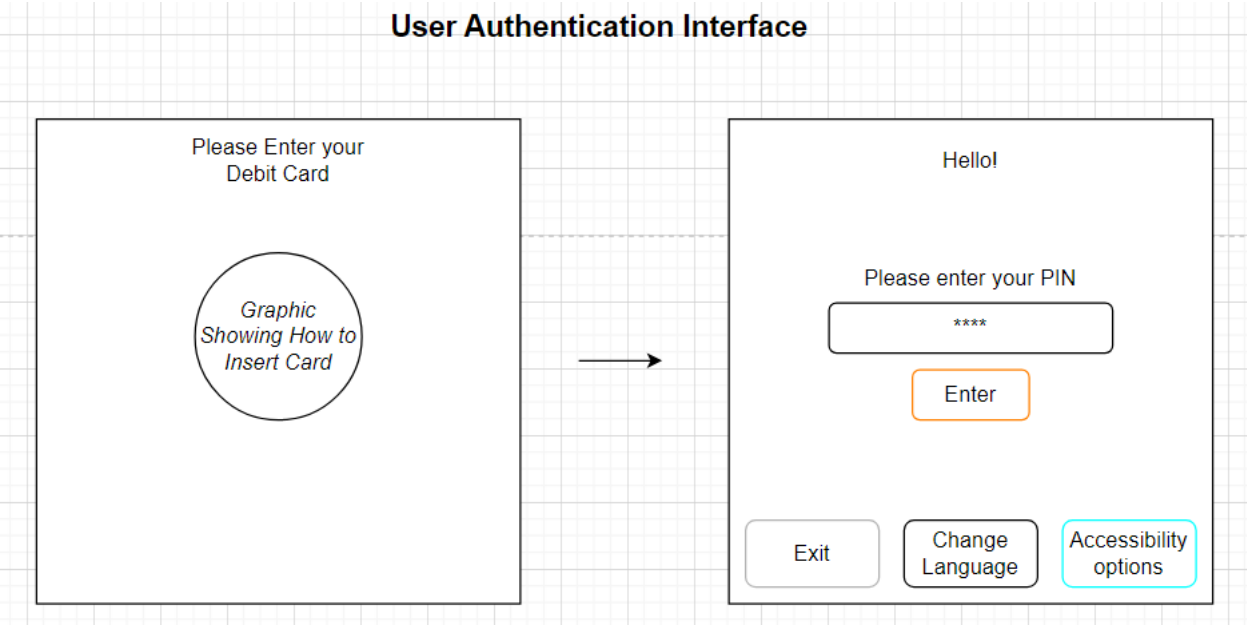
***Bolded weeks are where we are in the steps of creating our system. ***

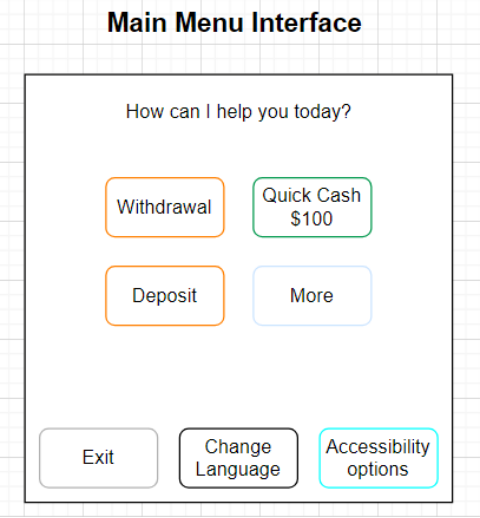
Weeks 1-2: Define the project framework, set up the development environment, and establish the basic structure.
Weeks 3-4: Implement user authentication via PIN and basic account management features.
Weeks 5-7: Develop core functionalities such as balance inquiries, cash withdrawals, and fund transfers.

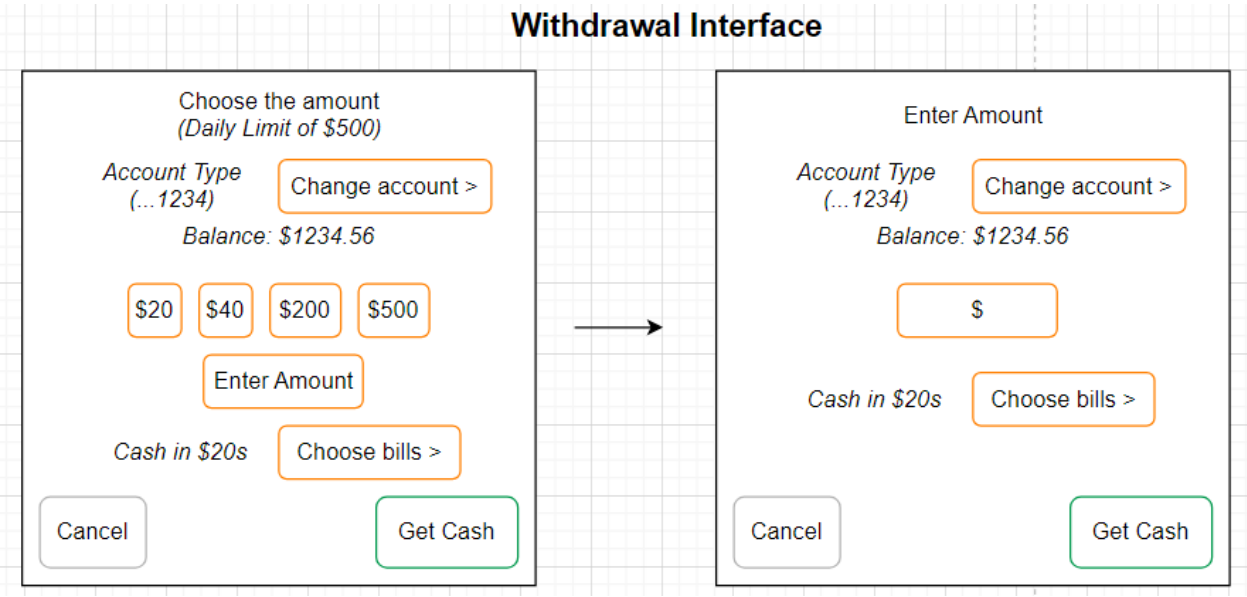
Week 8: Test and record a demo showcasing the main features for the mid-term evaluation.
Weeks 9-11: Implement transaction history tracking and enhance security features.
Weeks 12-14: Write test cases for implemented features and conduct thorough testing.
Week 15: Record a final demo presentation showcasing the complete ATM System.

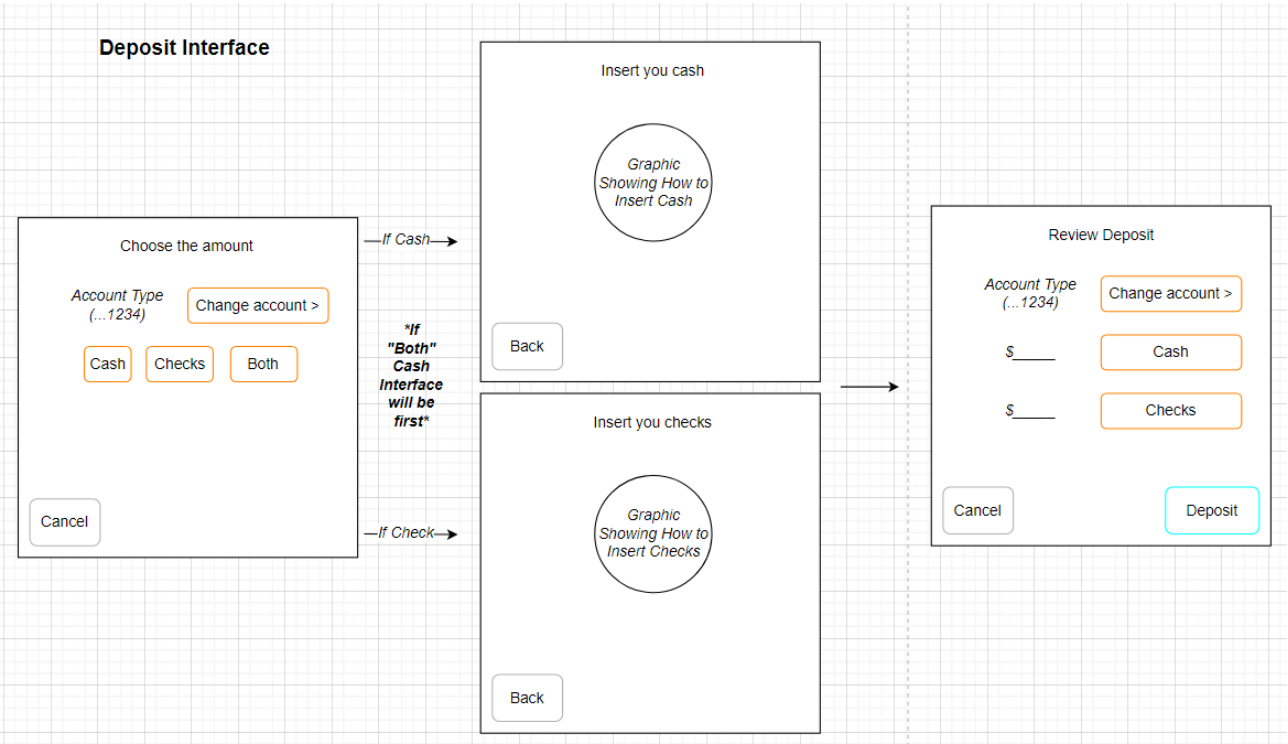
We are still within the beginner phases of setting up the appropriate design for our system. We have thought of and will begin attempting to implement these functionalities into our framework. Next, we will begin phase two where we are implementing user authentication via PIN and additional beneficial functions for our customers.

User Interfaces:

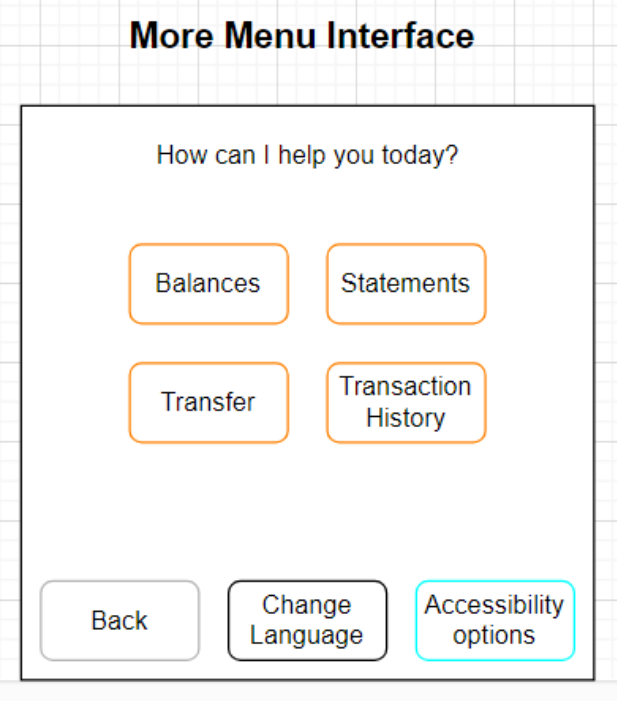




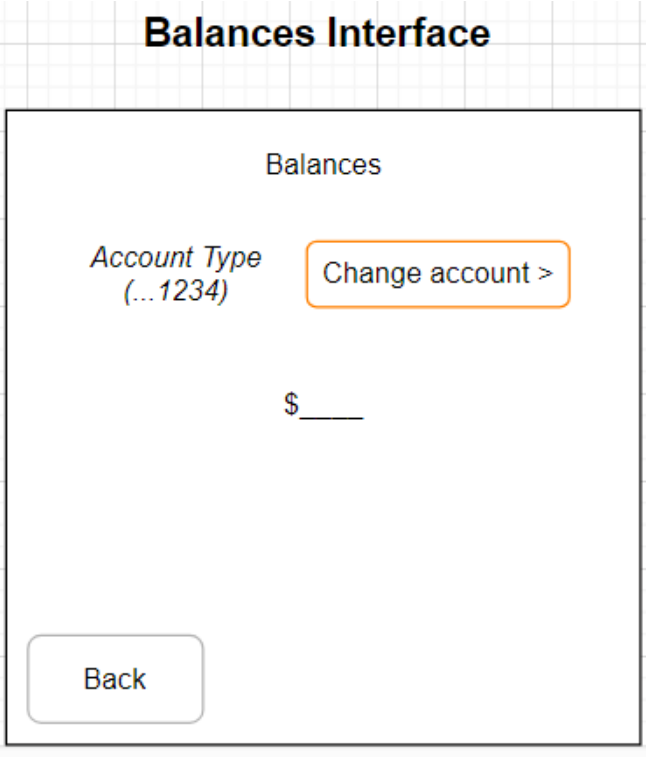

Withdrawal Interface
Choose the amount
(Daily Limit of $500)
Account Type
(...1234)
Change account >
Balance: $1234.56
$20
$40
$200
$500
Enter Amount
Cash in $20s
Choose bills >
Cancel
Get Cash
Enter Amount
Account Type
(...1234)
Change account >
Balance: $1234.56
$
Cash in $20s
Choose bills >
Cancel
Get Cash


Deposit Interface
Choose the amount
Account Type
(...1234)
Change account >
Cash
Checks
Both
Cancel
If Cash
If Check
If "Both" Cash Interface will be first
Insert you cash
Graphic Showing How to Insert Cash
Back
Insert you checks
Graphic Showing How to Insert Checks
Back
Review Deposit
Account Type
(...1234)
Change account >
$_____
Cash
$_____
Checks
Cancel
Deposit

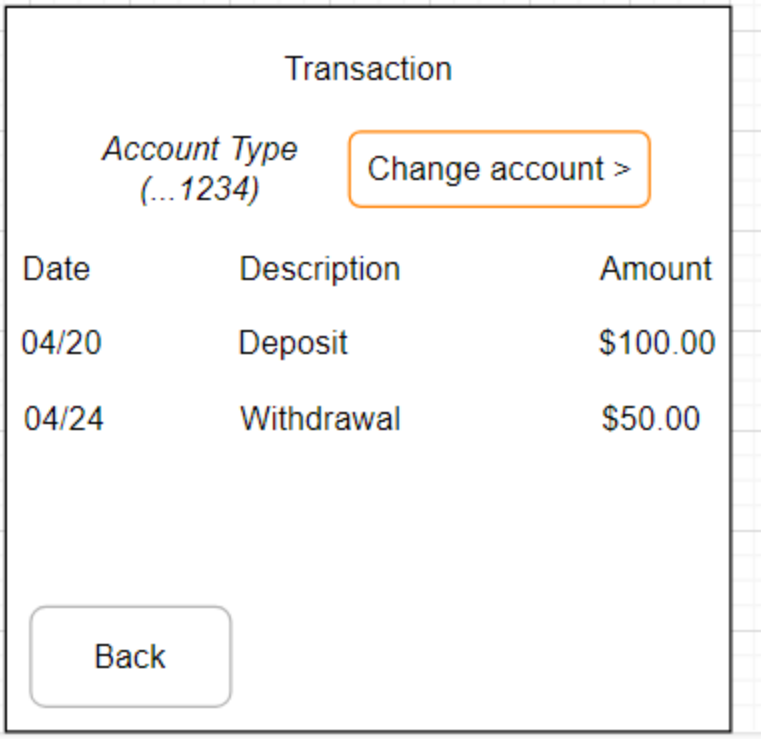
More Menu Interface



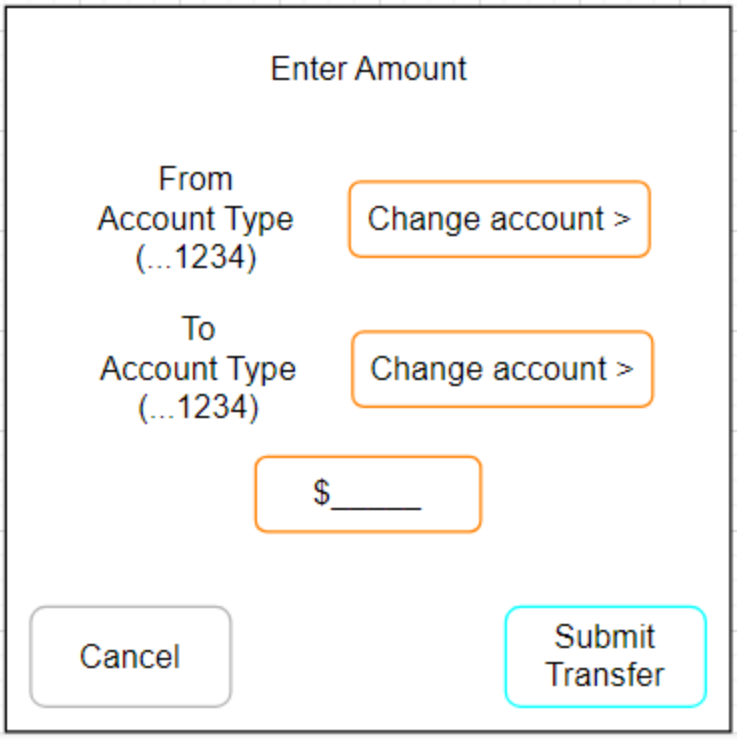
Balances Interface



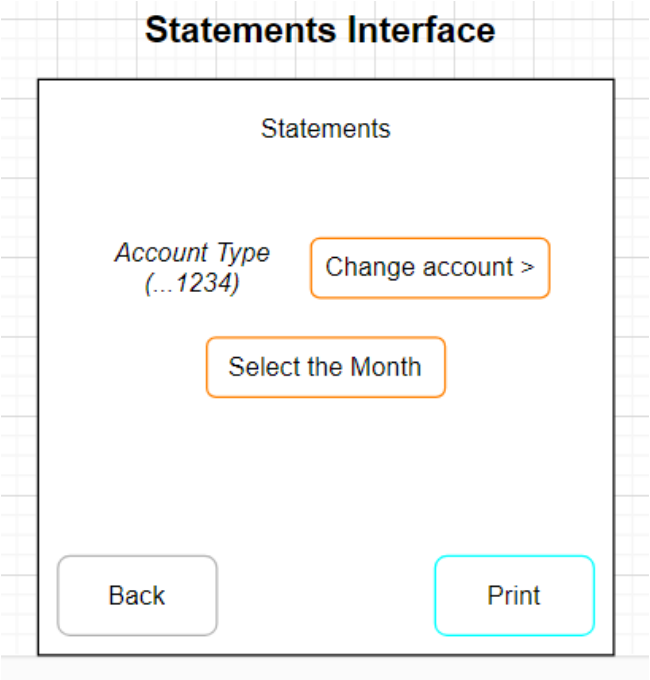
Transactions Interface



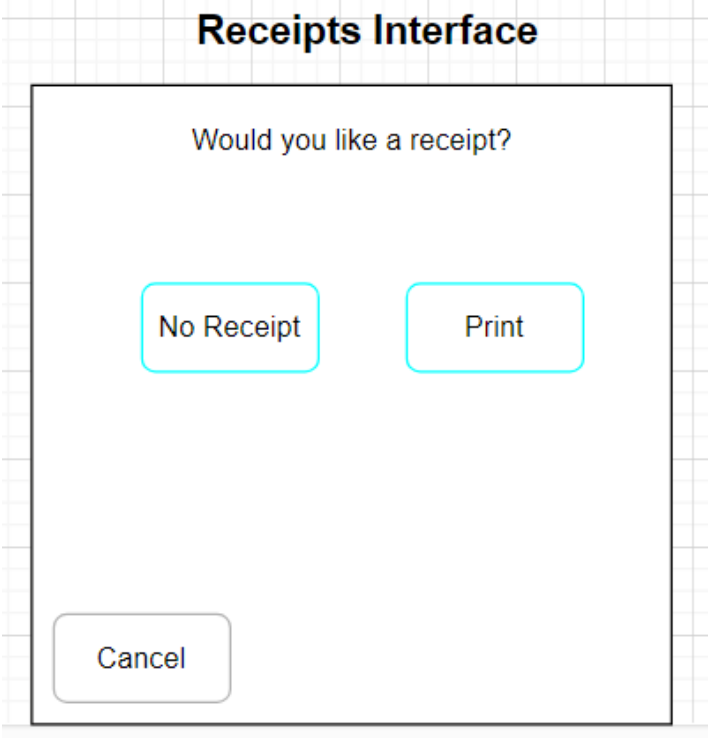
Transtransfers Interface

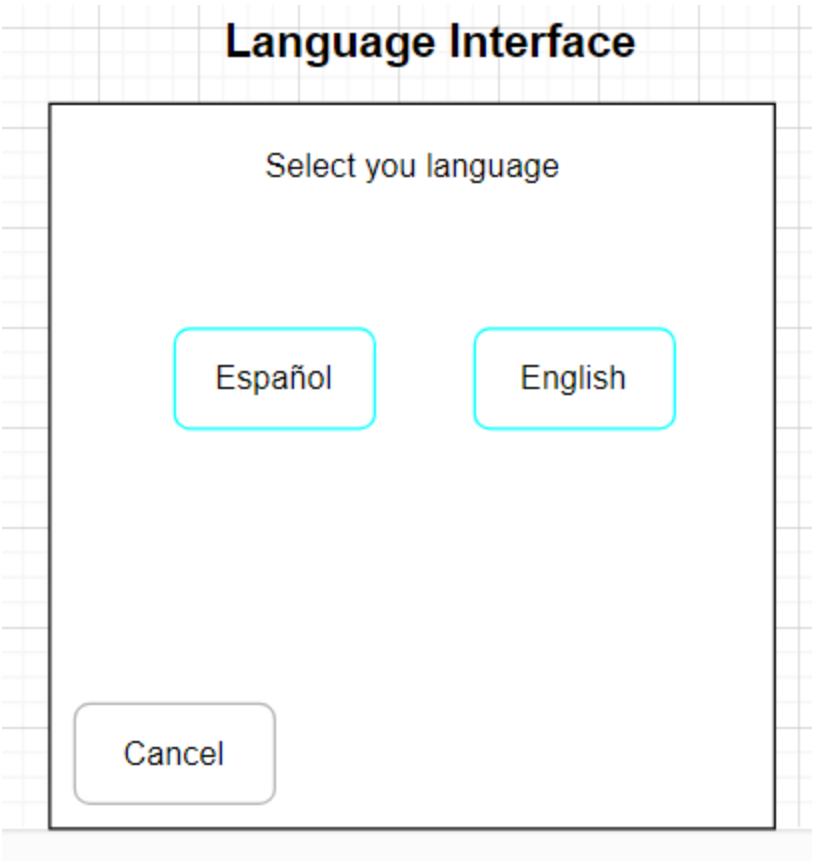


Statements Interface



Receipts Interface




Language Interface
Select you language
Español
English
Cancel