

Use Case: Login to account

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User Story

As a **Customer**, I would like to **login to my account** so that I can perform a transaction.

Identification of Actor(s)

Customer – User of ATM

Bank Server – external agent the ATM communicates with for card validation purposes.

Pre-conditions

ATM in idle state, waiting for a Customer, with Welcome Screen displayed. (see figure 1) Welcome Screen contains instructions that tell a prospective Customer to begin using the System by swiping their card.

Scenarios

Basic/Normal Flow

Customer	System (ATM)	Bank Server
1. Swipes bank card in card reader.		
	2. Acquires Customer information contained on Customer's bank card. Displays PIN Entry screen that instructs Customer to enter 4-digit PIN (figure 2)	
3. Enters 4-digit PIN		
	4. Authenticates PIN against Customer information acquired from Customer's bank card [via <i>communicating with Bank Server</i>].	
		5. Notifies ATM that Customer Information and PIN authenticate OK.
	6. Displays Account Options screen presenting available choices for transactions (figure 3).	



Figure 1



Figure 2



Figure 3

Alternate Flow 1: Card unreadable

This case describes the situation where the Customer's card is unreadable, whether corrupt/damaged, or simply an unrecognized card (not a bank card).

Customer	System (ATM)	Bank Server
1a. <i>Swipes bank card in card reader.</i>		
	2a. Cannot read card. <i>Displays [Unreadable Card] screen</i> that indicates card read failed and that Customer should try again or contact the bank that issued the card. <i>After 5s, displays Welcome Screen</i>	

Alternate Flow 2: Invalid PIN entered

This case describes the situation where the Customer enters an incorrect PIN that doesn't match the information read from the bank card by the System.

Customer	System (ATM)	Bank Server
1b. <i>Swipes bank card in card reader.</i>		
	2b. <i>Acquires [Customer] information</i> contained on Customer's bank card. <i>Displays [PIN entry] screen that instructs Customer to enter 4-digit PIN.</i>	
3b. <i>Enters 4-digit PIN.</i>		
	4b. <i>Authenticates PIN</i> against [Customer] information acquired from Customer's bank card [via <i>communicating with Bank Server</i>].	
		5b. Cannot authenticate Customer with entered PIN. <i>Returns error notification to ATM.</i> On 3 rd bad PIN entry, <i>notifies ATM</i> that customer's account has been locked.
	6b. <i>Displays screen that indicates a bad PIN and that Customer should try swiping card again.</i> On 3 rd failure, <i>displays [Account locked] screen that tells customer to contact the bank that issued the card.</i>	

Alternate Flow 3: No PIN entered

This case describes the situation where the Customer swipes the card but never enters the PIN.

Customer	System (ATM)	
1c. <i>Swipes bank card in card reader.</i>		
	2c. <i>Acquires [Customer] information contained on Customer's bank card. Displays [PIN entry] screen that instructs Customer to enter 4-digit PIN.</i>	
3c. <i>Does not enter PIN within 15s</i>		
	4c. <i>Displays screen indicating no PIN was entered. After 5s, displays Welcome Screen.</i>	

Post-conditions / Acceptance Criteria

On successful authentication, ATM displays screen indicating the available transactions the Customer can select.

Additional Requirements

The ATM has a built-in timeout mechanism that takes action whenever no interaction has been detected. See XXX for more details on this requirement.

Actors

Customer
Bank Server

Boundary Elements

Card Reader
PIN Entry Screen
Account Options Screen
Unreadable Card Screen
PIN Error Screen
No PIN Screen
Account Locked Screen
Welcome Screen

Control Elements

System (ATM)

Entity Elements

Customer Information