Group #1 RR – Texas State Bank ATM application

Table of Contents

[Withdraw Funds: 1](#_Toc418088800)

[Transfer Funds: 1](#_Toc418088801)

[Application Start and Logging In: 1](#_Toc418088802)

[Logging in – Swipe Card: 1](#_Toc418088803)

[Logging in – Enter PIN: 1](#_Toc418088804)

[Successful Login: 1](#_Toc418088805)

[Account Overview Page: 1](#_Toc418088806)

[Withdraw Funds – Withdraw Button Pressed and Amount Entered: 1](#_Toc418088807)

[Withdraw Funds – Logout: 1](#_Toc418088808)

[Transfer Funds – TRANSFER Button Pressed: 1](#_Toc418088809)

[Transfer Funds – Select TO Account: 1](#_Toc418088810)

[Transfer Funds – Enter an Amount and Transfer: 1](#_Toc418088811)

[Transfer Funds – Logout: 1](#_Toc418088812)

[Other Functionality: 1](#_Toc418088813)

[Picture Taken: 1](#_Toc418088814)

[Time-out: 1](#_Toc418088815)

[Cancel Transaction: 1](#_Toc418088816)

Acceptance Testing

# Withdraw Funds:

|  |  |  |
| --- | --- | --- |
| Name of Use Case: | Withdraw Funds | |
| Super Use Case: | None | |
| Actor(s): | User | |
| Brief Description: | The user swipes their card, enters their PIN, selects to withdraw, selects an account, enters an amount, collects their cash, and is logged out. | |
| Pre-Conditions: | The Welcome Screen is displayed, and the card reader is in a ready state. | |
| Post-Conditions: | The Welcome Screen is displayed, and the card reader is in a ready state. | |
| Flow of Events / Results: | 1. The user approaches the ATM which is displaying a Welcome Screen. The screen instructs the user to swipe their card. 2. The user swipes their card. 3. The ATM prompts the user for their PIN. 4. The user enters their PIN for the card swiped. 5. The Account Overview Page is displayed for the user to view. 6. The user selects Withdraw from the screen. 7. The ATM prompts the user to select an account to withdraw from. 8. The user selects an account. 9. The ATM prompts the user to enter an amount in increments of $20. 10. The user enters the amount of $20 and clicks OK. 11. The ATM prompts the user to take their cash and asks the user to log out. | 2. n/a     8. n/a 9. n/a |
| Alternate Flow and Exceptions / Results: | 1a. The database is unavailable.  1b. The network is unavailable.  The ATM shows an offline message. | 1a/b. |
| Alternate Flow and Exceptions / Results: | 2a. The card swipe cannot be read.  a. An unsuccessful read message is shown and the ATM returns to the Welcome Screen.  2b. The card swiped is read but the information is invalid for this system.  b. An invalid card message is shown and the ATM returns to the Welcome Screen.  2c. The card reader encounters a hardware error.  2d. Card swipe is successful, but system loses connection.  d. The ATM shows an offline message. | 2a/b/c/d. |
| Alternate Flow and Exceptions / Results: | 4a. The user enters an invalid PIN.  a. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4b. The user enters a PIN shorter than 4 digits.  b. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4c. The user enters a PIN longer than 4 digits.  c. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4d. The PIN entered is valid but the system loses connection.  d. An ATM unavailable message is shown and the ATM goes into an offline state until it is able to reconnect. | 4a/b/c/d. |
| Alternate Flow and Exceptions / Results: | 8a. The user selects an account with a $0 balance.  8b. The user selects an account with a balance less than $20. | 8a/b. |
| Alternate Flow and Exceptions / Results: | 10a. The user enters a value that is not an increment of $20.  10b. The user enters a value greater than the balance of the account. | 10a/b. |
| Alternate Flow and Exceptions / Results: | 11a. An error has occurred in the withdraw process. | 11a. |
| Alternate Flow and Exceptions / Results: | If the system is left idle for 15 seconds, no matter what the user is doing, the system will log out the user. |  |
| Priority: | High | |
| Assumptions: | The database and network are connected and in a read state. | |

# Transfer Funds:

|  |  |  |
| --- | --- | --- |
| Name of Use Case: | Transfer Funds | |
| Super Use Case: | None | |
| Actor(s): | User | |
| Brief Description: | The user swipes their card, enters their PIN, selects Transfer, selects a ‘from’ account, then selects a ‘to’ account, enters an amount, and is logged out. | |
| Pre-Conditions: | The Welcome Screen is displayed, and the card reader is in a ready state. | |
| Post-Conditions: | The Welcome Screen is displayed, and the card reader is in a ready state. | |
| Flow of Events / Results: | 1. The user approaches the ATM which is displaying a Welcome Screen. The screen instructs the user to swipe their card. 2. The user swipes their card. 3. The ATM prompts the user for their PIN. 4. The user enters their PIN for the card swiped. 5. The Account Overview Page is displayed for the user to view. 6. The user selects Transfer from the screen. 7. The ATM prompts the user to select a ‘From’ account. 8. The user selects a ‘From’ account. 9. The ATM prompts the user to select a ‘To’ account. 10. The user selects a ‘To’ account. 11. The ATM prompts the user to enter an amount. 12. The user enters the amount of $15 and clicks OK. 13. The ATM asks the user to logout. | 2. n/a     8. n/a 10. n/a 11. n/a |
| Alternate Flow and Exceptions / Results: | 1a. The database is unavailable.  1b. The network is unavailable.  The ATM shows an offline message. | 1a/b. |
| Alternate Flow and Exceptions / Results: | 2a. The card swipe cannot be read.  a. An unsuccessful read message is shown and the ATM returns to the Welcome Screen.  2b. The card swiped is read but the information is invalid for this system.  b. An invalid card message is shown and the ATM returns to the Welcome Screen.  2c. The card reader encounters a hardware error.  2d. Card swipe is successful, but system loses connection.  d. The ATM shows an offline message. | 2a/b/c/d. |
| Alternate Flow and Exceptions / Results: | 4a. The user enters an invalid PIN.  a. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4b. The user enters a PIN shorter than 4 digits.  b. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4c. The user enters a PIN longer than 4 digits.  c. An invalid PIN message is shown on the ATM and the user is prompted to enter PIN again.  4d. The PIN entered is valid but the system loses connection.  d. An ATM unavailable message is shown and the ATM goes into an offline state until it is able to reconnect. | 4a/b/c/d. |
| Alternate Flow and Exceptions / Results: | 8a. The user selects an account with a $0 balance. | 8a/b. |
| Alternate Flow and Exceptions / Results: | 11a. The user enters an amount greater than the ‘From’ account balance. | 11a/b. |
| Alternate Flow and Exceptions / Results: | 13a. An error has occurred in the withdraw process. | 13a. |
| Alternate Flow and Exceptions / Results: | If the system is left idle for 15 seconds, no matter what the user is doing, the system will log out the user. |  |
| Priority: | High | |
| Assumptions: | The database and network are connected and in a read state. | |

SECTIONAL BREAK-DOWN:

# Application Start and Logging In:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| When starting the application the Welcome screen appears. | 1. Run the application as a Java Application |  |
| When starting the application, if the database is unavailable an error is shown. | 1. Run the application as a Java Application |  |
| When starting the application, if the network is unavailable an error is shown. | 1. Run the application as a Java Application |  |

## Logging in – Swipe Card:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| If the card swipe cannot be read the user is prompted to swipe their card again. | 1. User swipes their card. |  |
| If the card swipe is read but the information is invalid (not a valid card) an error is displayed | 1. User swipes their card. |  |
| If the card reader encounters an error in the hardware an error is displayed that the card reader is unavailable. | 1. User swipes their card. |  |
| If the card swipe is read and the user information is not in the database an error is shown that we are unable to look up the user. | 1. User swipes their card. |  |
| When the user swipes their card they are greeted by name and are presented the pin screen | 1. User swipes their card. |  |

## Logging in – Enter PIN:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user enters an invalid PIN and is given an error then taken to pin screen again | 1. User swipes their card. 2. User enters a PIN. |  |
| The user attempts to enter a PIN shorter than 4 digits and is given an error that the PIN is invalid. | 1. User swipes their card. 2. User enters a PIN. |  |
| The user enters a valid PIN but the ATM loses the connection to the database and is given an error that we cannot connect to the database. | 1. User swipes their card. 2. User enters a PIN. |  |
| The user enters a valid PIN and is taken to the account overview page. | 1. User swipes their card. 2. User enters a PIN. |  |

# Successful Login:

## Account Overview Page:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| User is valid but does not have any associated accounts. | 1. User swipes their card. 2. User enters a PIN. |  |
| User is valid and has more than 4 accounts available. User clicks “Next Page” button to see additional accounts | 1. User swipes their card. 2. User enters a PIN. |  |
| Account information is shown for up to 4 accounts (in alphabetical order) with the total balance of each account. | 1. User swipes their card. 2. User enters a PIN. | Stacie’s Account Information – 3 accounts  Chris’s Account Information – 4 accounts |

## Withdraw Funds – Withdraw Button Pressed and Amount Entered:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| Withdraw is selected from the screen and the user is prompted to select an account. After selecting the account the user is asked to enter an amount | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User prompted for Amount |  |
| Withdraw is selected from the account screen and the user selects an account with $0.00. User enters amount in $20 dollar increments, then clicks “Withdraw” button to submit transaction. Error is displayed and user is returned to Welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User enters amount and clicks withdraw button |  |
| Withdraw is selected from the account screen and the user selects an account with less than $20 available. User enters amount in $20 dollar increments, then clicks “Withdraw” button to submit transaction. Error is displayed and user is returned to Welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User enters amount and clicks withdraw button |  |
| The user enters an amount < $20 and message is displayed to enter amounts in increments of $20. The amount screen also changes back to $0.00. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User enters an amount and clicks withdraw button. |  | |
| The user enters an amount greater than the amount available in the account and an insufficient funds error is displayed, then the user is returned to Welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User enters an amount and clicks withdraw button. |  | |
| The user enters an amount equal to the amount available in the account. The user is prompted to take their cash and logged out. The user is then returned to welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User enters an amount and clicks withdraw button. |  | |
| The user enters a valid amount (increments of $20.00) for the selected account. The user is prompted to take their cash and logged out. The user is then returned to welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User enters an amount and clicks withdraw button. |  | |

## Withdraw Funds – Logout:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The ATM logs the user out. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Withdraw. 4. User selects account 5. User enters a valid amount and clicks withdraw button. |  |

## Transfer Funds – TRANSFER Button Pressed:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| Transfer is selected from the screen and the user is prompted to select an account (From Account). | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. |  |

## Transfer Funds – Select TO Account:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user is prompted to select a TO account. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. |  |

## Transfer Funds – Enter an Amount and Transfer:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user selected a FROM account with $0.00 in the account. Then selects the TO account. An error is displayed when user enters amount to transfer and submits. The user is then returned to the welcome screen | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |
| The user selects FROM account with valid amount of money >$0.00. After selecting the TO account, the user enters an amount greater than the balance in the FROM account. An error is displayed and user is returned to welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |
| The user selects a FROM account with valid amount of money >$0.00. Then after selecting the TO account, the user enters an amount equal to the balance in the FROM account. The user is notified of completed transfer and logged out to Welcome screen | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |
| The user selects a FROM account with valid amount of money >$0.00. Then after selecting the TO account, the user enters a valid transfer amount less than current balance of FROM account. The user is notified of completed transfer and logged out to Welcome screen | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |
| After successful transfer, the system displays a transfer complete screen then logs the user out of system. The system returns to the Welcome screen | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |

## Transfer Funds – Logout:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user is notified of Transfer complete and logs the user out of the system. Then the system returns to the Welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User selects Transfer. 4. The user selects a FROM account. 5. The user selects a TO account. 6. User enters an amount and clicks Transfer button. |  |

# Other Functionality:

## Picture Taken:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The camera is unavailable or offline. | 1. User swipes their card. 2. User enters a PIN. |  |
| The user has covered the camera to not capture an image. | 1. User swipes their card. 2. User enters a PIN. |  |
| The camera is available and an image is taken. | 1. User swipes their card. 2. User enters a PIN. |  |
| The successful image is displayed on the account overview page. | 1. User swipes their card. 2. User enters a PIN. |  |

## Time-out:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user has not performed an action in 30 seconds, the user is then logged out of the system and returned to Welcome screen | 1. User swipes their card. 2. User enters a PIN. |  |
| The user performs actions within 30 seconds on each screen (Welcome screen excluded). User stays logged into session unless clicking cancel. | 1. User swipes their card. 2. User enters a PIN. 3. User performs any other action to change screen | User stays logged in with their session (no screenshot needed). |

## Cancel Transaction:

|  |  |  |
| --- | --- | --- |
| Description | Test Steps | Results |
| The user clicks cancel on Pin screen to end transaction. The user is logged out and returned to welcome screen. | 1. User swipes their card. 2. User clicks Cancel button. |  |
| The user clicks cancel on Account screen to end transaction. The user is logged out and returned to welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User clicks Cancel button |  |
| The user clicks cancel on Amount screen to end transaction. The user is logged out and returned to welcome screen. | 1. User swipes their card. 2. User enters a PIN. 3. User clicks Withdraw or Transfer 4. User selects accounts to either withdraw or transfer 5. User click Cancel button |  |