

CSC406 Banking System User Manual

Team 1

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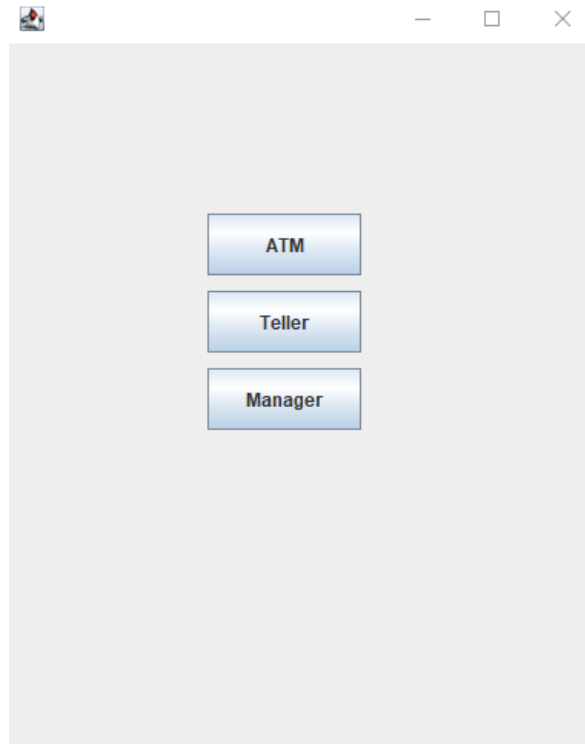
Joel Wiegand

The User Manual contains a page for each of the banking system interfaces. This manual presents a screen capture of each interface. Including a paragraph describing the purpose of the interface, and a description of each entry in the interface, the type, and range of data entered.

User Interfaces

User Selection (Start Menu) Interface:

- This interface is the start screen for the entire banking system. This is the user selection interface. This interface is the first to be displayed when the program is run. The selection interface enables the user to decide which interface they want to operate from. This interface displays three action buttons, “ATM”, “Teller”, and “(Bank) Manager”.

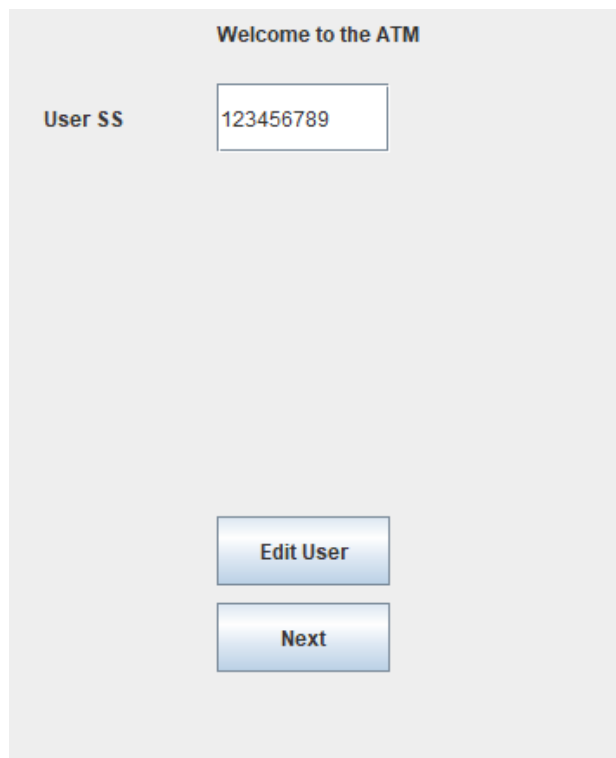


- The user selection interface exhibits how the user of the banking system enters each of the systems interfaces. The start menu interface allows the user to initiate the necessary processes that enable them to interact with the banking system interfaces and their special features. Upon selection the user interface transfers the user of the system to the selected interface start screen.
- Included in the user selection start menu are three action buttons, a user of the system has the option to:
 - 1. “ATM”; if selected, the user selection interface transfers the user of the system to the ATM interface start window.

Customer Interfaces

Initial Customer Interface at ATM:

- This interface is the landing page for the ATM portion of the banking system. It will be fairly plain with one input box. This input will be the customers social security number (customerId) which will be used to fetch the customers information and the accounts in their name.



The screenshot shows a simple web interface for an ATM. At the top, it says "Welcome to the ATM". Below this, there is a label "User SS" followed by a text input box containing the number "123456789". At the bottom of the interface, there are two buttons: "Edit User" and "Next", stacked vertically.

- The customer interface at the ATM exhibits the first interface the customer interacts with when they approach the ATM itself. A customer user is prompted with an "User SS" input box to enter a 9 digit social security number that represents their customer ID within the banking system.

Entry: Customer ID

Data Type: Int

Range: 9

- Included in the ATM interface are two action buttons, a customer user is given the option to:
 1. "Edit User"; which if selected, the customer user is transferred to a User view menu screen that allows them to edit and update their user information.
 2. "Next"; which if selected, the customer user is transferred to the next interface screen of the customer ATM interface.

Edit User (User View) Interface at ATM:

- This interface will be displayed if the customer chooses the “Edit User” action button. In the user view the customer has the ability to edit and update their user information within the banking system. This interface screen displays multiple input boxes that prompt the customer user to edit information specific to their customer account with the bank. A customer user is not required to enter their customer ID in order to enter the user view window from the initial ATM welcoming screen.

The image shows a 'User View' interface with a light gray background. At the top, the title 'User View' is centered. Below it, there are seven input fields, each with a label to its left: 'SS' (containing '233435656'), 'Street Address' (containing '1525 Kioam'), 'City' (containing 'Ellwood'), 'State' (containing 'KS'), 'Zip' (containing '56708'), 'First Name' (containing 'Mary'), and 'Last Name' (containing 'White'). At the bottom of the form, there are two buttons: 'Submit' and 'Done', both with a blue gradient and white text.

- The “User View” interface within the ATM system exhibits how the user will interact and update aspects of their customer account. A customer user is prompted with “SS”, “Street Address”, “City”, “State”, “Zip”, “First Name”, and “Last Name” input boxes. Within each input box the customer can enter information that best represents the data that each box must hold.

Entry: Customer ID, Street, City, State, Zip, First Name, Last Name

Data Types: Int (CustomerID, Zip), String (Street, City, State, First, Last)

Range: Customer ID = 9, Zip = 5

- Included in the User View interface are two actions buttons, a customer user is given the option to:
 1. “Submit”; if selected, the customer user is shown a “Updating User info” notification before the system returns them back to the user view window.
 2. “Done”; if selected, the customer user is transferred back to the initial ATM window screen.

“Updating User info” Notification Interface at ATM:

- Once a customer user has finished interacting with the User View window they are prompted to select an action button, “Submit”, to solidify their changes to the banking system. Once the user selects the action button the system displays a “updating user info” notification box that features an “OK” action button.

The image shows a 'User View' form with the following fields and values:

Field	Value
SS	233435656
Street Address	1525 Kioam
City	Ellwood
State	KS
Zip	
First Name	
Last Name	White

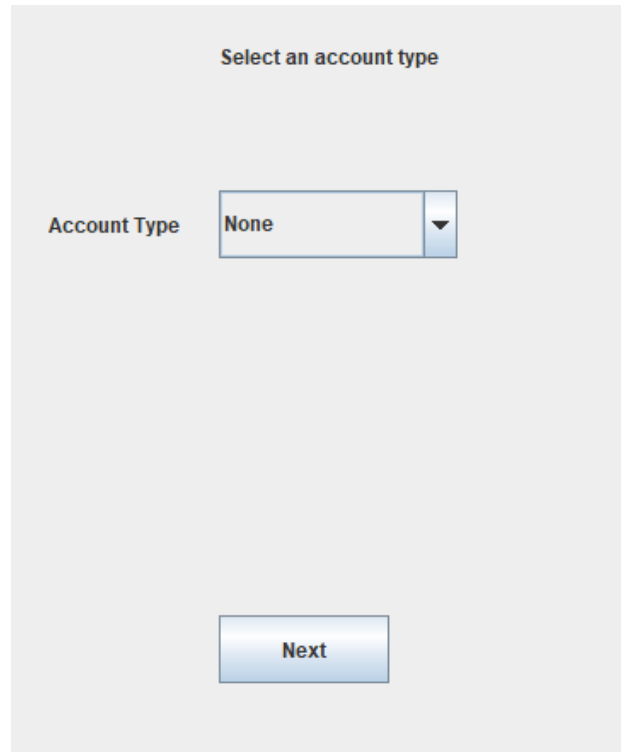
At the bottom of the form are two buttons: 'Submit' and 'Done'.

Overlaid on the form is a 'Message' dialog box titled 'Updating User Info'. It contains an information icon (i) and an 'OK' button.

- Included in the update notification is an action button, “OK”. This button allows the customer user to close the notification window.
- Once the notification window is closed the customer user can then leave the edit user process and return to the initial ATM window with an action button, “Done”. This button returns the customer back to the initial ATM window where they can then start the ATM process.

Account Selection Interface at ATM:

- This interface will be displayed after the customer has entered their social security number and their account information has been fetched. This interface will display a drop down menu for each type of account (checking, savings). It also can include a payment menu link. After choosing the from the dropdown, clicking the select button will transfer to the selected menu.

The image shows a user interface for selecting an account type. At the top, the text "Select an account type" is displayed. Below this, there is a label "Account Type" followed by a dropdown menu. The dropdown menu currently shows "None" and has a downward-pointing arrow on its right side. At the bottom of the interface, there is a blue button with the text "Next" in white.

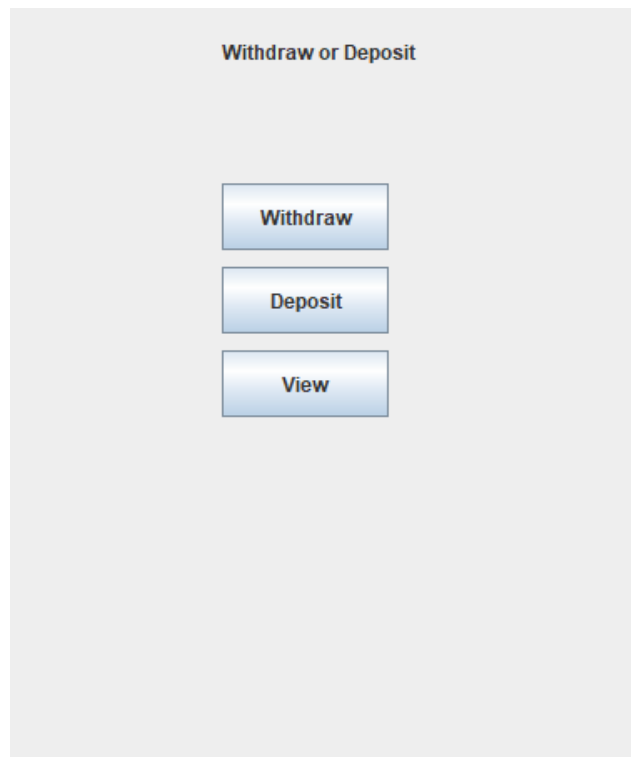
- The account selection interface exhibits a drop down menu box that displays the account types the customer user can choose from. The customer user is prompted to select the account type they wish to interact with. Once an account type is chosen it is entered into the "Account Type" input box.

Account Types: Checking, Savings

- Included in the account selection interface is an action button, "Next". Upon selection, this action button enables the user to move to the next step of the ATM interface process in which they are able to interact with the account they selected from the drop down menu.

Withdraw/Deposit Selection Interface at ATM:

- This interface will be displayed after the customer has selected an account (either savings or checking) and they have interacted with the action button, “Next”. This interface will display three buttons, one displaying Withdraw, one displaying Deposit, and one displaying View.



- The “Withdraw or Deposit” interface exhibits the three action buttons specified in the above description. Each action button whether “Withdraw”, “Deposit”, or “View” enables the user to move to the next interface window of the ATM process. A customer user has the option to:
 1. “Withdraw”; if selected, the customer user is transferred to the specified accounts withdrawal interface window.
 2. “Deposit”; if selected, the customer user is transferred to the specified accounts deposit interface window
 3. “View”; if selected, the customer user is transferred to the “Account View” interface window where they will be able to view a specified accounts information.

Amount Input Interface at ATM:

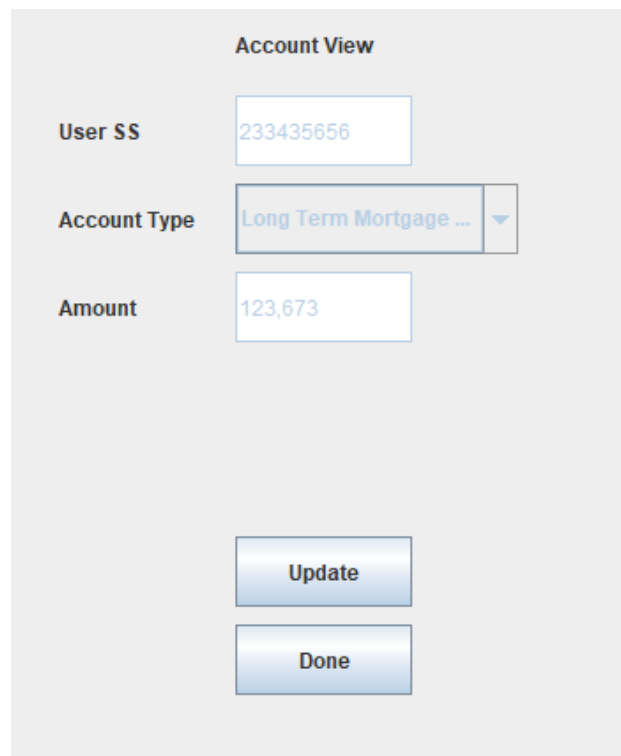
- This interface will be displayed after the customer has selected an action (either withdraw or deposit). This interface will display a confirm amount button and an input box requesting an amount. The user will then be shown a confirmation message or request failed message if they don't have enough money in their account or they've done too many withdrawals that day.

The image displays three screenshots of the ATM Amount Input Interface. The first screenshot shows the 'Withdraw' screen with an 'Amount' input box and 'Transfer' and 'Done' buttons. The second screenshot shows the 'Deposit' screen with an 'Amount' input box and 'Transfer' and 'Done' buttons. The third screenshot shows the 'Withdraw' screen with an 'Amount' input box, 'Transfer' and 'Done' buttons, and a 'Message' dialog box that says 'Amount is empty!' with an 'OK' button.

- The “Withdraw” amount interface in the ATM system exhibits how the customer user will enter an amount for withdrawal. The customer is prompted with an “Amount” input box which enables them to enter any amount of funds they wish to withdraw from their account.
- Identical to the withdrawal interface, the “Deposit” amount interface in the ATM system exhibits how the customer user will enter a deposit amount. The customer is prompted with an “Amount” input box which enables them to enter any amount of funds they wish to deposit into their account.
- Included in both the “Withdraw” and “Deposit” interface are two actions buttons, a customer user is given the option to:
 1. “Transfer”; if selected, a customer user is linked and transferred to the transfer funds interface where they will then have the ability to transfer funds to the account they wish to transfer funds to.
 - If the customer attempts to transfer more money than what is already present in their account they will be shown a request failed notification and the user will be prompted to enter a new amount.
 2. “Done”; if selected, a customer user will be shown a confirmation notification upon the instance of a successful transaction where they will then be transferred back to the initial ATM interface window. Included in the notification window is an action button, “OK” that allows the user to close the notification window.
 - If the customer attempts to withdraw more money than what is already present in their account they will be shown a request failed notification and the user will be prompted to enter a new amount.

View (Account View) Interface at ATM:

- This interface will be displayed if a customer user chooses the “View” action button in the withdraw/deposit selection window. In the account view the customer has the ability to view their account type and balance. This interface displays the customers ID, account type, and the current amount in the specified account. The account view includes and displays a drop down menu box for the account type.



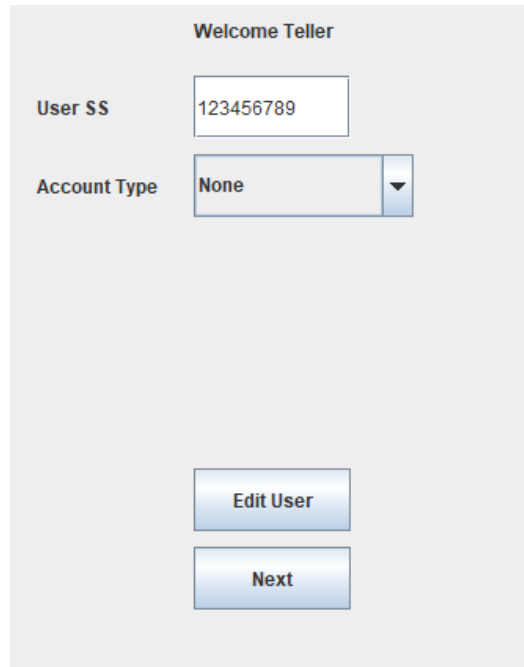
The screenshot shows a window titled "Account View". It contains three input fields: "User SS" with the value "233435656", "Account Type" with a dropdown menu showing "Long Term Mortgage ..." and a downward arrow, and "Amount" with the value "123,673". Below these fields are two buttons: "Update" and "Done".

- The account view interface displays the customers ID and account balance in visual text boxes. Included in this display is an account type drop down menu. This menu enables a customer to select which account's balance they wish to view. Once an account has been selected the account view interface displays the amount of funds in the account.
- Included in the account view interface are two actions buttons, a customer has the option to:
 1. “Update”; if selected, the account view window displays an “Updating” notification message. The user can click an “OK” action button included in the message window or they can wait for the message to close on its own. Once the system is done updating it displays the most recent current balance.
 2. “Done”; if selected, the customer user is transferred back to the withdraw/deposit interface screen.

Bank Teller Interfaces

Initial Bank Teller Interface

- This interface has access to a list of all (checking/savings) account balances, recent debits, and account statuses. This portion of the banking system loads information from each category upon selection. A Teller requires an input box. This input takes the customers account number (customer/accountID) and uses it to grab the list of account information the Teller has access to.



The screenshot shows a web-based interface for a bank teller. The title is "Welcome Teller". There are two input fields: "User SS" with the value "123456789" and "Account Type" with a dropdown menu showing "None". Below these fields are two buttons: "Edit User" and "Next".

- The “Welcome Teller” interface exhibits the first interface the bank teller interacts with when they enter the banking system. A bank teller user is prompted with a “User SS” input box where they can enter the customers 9 digit social security number that represents the customers customer ID within the banking system.
 - Entry:** Customer ID
 - Data Type:** Int
 - Range:** 9
- Included in the bank teller interface are two action buttons and a drop down menu, a bank teller is given the option to:
 1. “Edit User”, which if selected, the customer user is transferred to a user view menu screen that allows them to edit the customers personal information in the banking system.
 2. “Next”, which if selected, the bank teller user is transferred to the next bank teller interface screen of the bank teller interface.
 3. “Account Type”, if selected, a drop down menu appears in which the bank teller can choose to specify by which customer account they wish to interact with. Whether that be the customer Checking, Savings, or Loan accounts.

Bank Teller Account Access Interface

- This interface will be displayed after the Teller has entered the specified customer ID and the account information has loaded. This interface displays the account record of choice. It includes a display of the account balance and account status(current or behind), along with one button that displays the recent debits made to the account.

Recent Debits May include:

- Miscellaneous customer purchases
- Payments made to loans/credit cards
- Checks honored by the account
- Withdrawals from ATM/Teller

Teller Account View

SS	<input type="text" value="423453245"/>	<input type="button" value="Transfer"/>
Amount	<input type="text" value="1,000"/>	<input type="button" value="Withdraw"/>
Status	<input type="text" value="current"/>	<input type="button" value="Deposit"/>

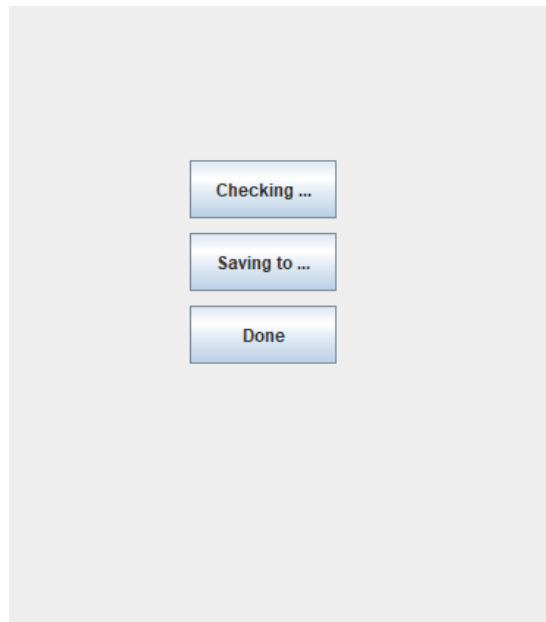
Date	C/D	Amount	Honored	
1-30-2021	C	34565	false	▲
1-25-2021	C	343256	true	≡
1-24-2021	D	32453	false	▼
1-21-2021	C	20	true	

- The “Teller Account View” interface exhibits the main functionalities the bank teller is capable of. A bank teller user has visibility of all the customers account information specific to the customer account the bank teller selected in the previous interface.
- The teller view window showcases three different preloaded text boxes specifying the customers ID, the current balance in their account, and the status of the account the teller is viewing (current or behind). Also included in this window is a table that displays credits and debits made to the customers account. These transactions are sorted by the date in which they occurred, type of transaction (credit/debit), the amount of funds credited or debited, and state whether or not the transaction has been honored within the system.

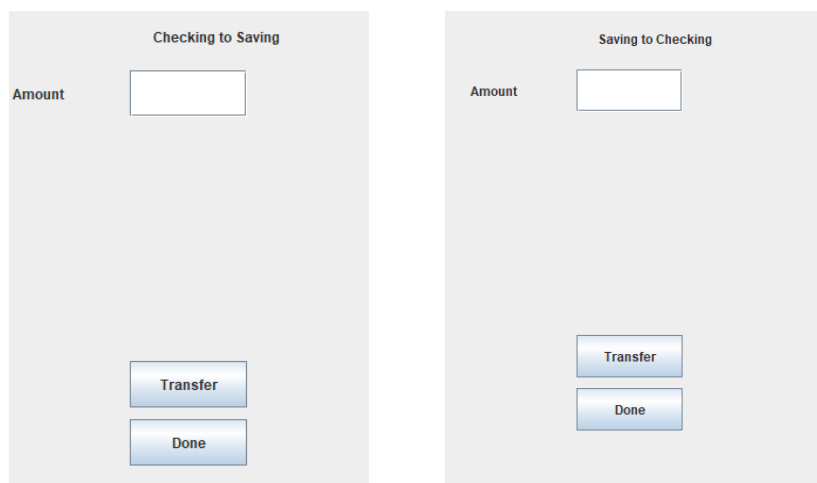
- Included in the teller account view are multiple action buttons that allow the customer to move between different functionalities within the teller interface. A bank teller has the option to:
 1. “Transfer”, if selected, the bank teller user is redirected to the transfer funds interface where they can transfer funds to and from customer accounts.
 2. “Withdraw”, if selected, the bank teller user is redirected to the withdraw funds interface where they can specify funds to withdraw from the customers account.
 3. “Deposit”, if selected, the bank teller user is redirected to the withdraw funds interface where they can specify funds to deposit into the customers account.
 4. “Update”, if selected, the bank teller user can update the customers account informatics which includes updates to the customers account balance, status, and records table for the customer account.
 5. “Done”, if selected, the bank teller is redirected back to the initial bank teller interface window, “Welcome Teller”.

Transfer Selection Interface:

- The link to this interface is included in the account access display. The transfer menu interface displays two buttons, one displaying checking to and one displaying savings to. Upon selection the interface redirects the bank teller user to the selected interface screen.



- Once an action button has been selected, in either case “Checking to” or “Savings to”, the bank teller is transferred to the selected interface screen. Here the bank teller is prompted with an amount input box where they are enabled to enter the amount of funds they wish to transfer to the next account.



- Included in both transfer interface screens are two action buttons:
 1. “Transfer”; if selected, this allows the bank teller to initiate the transfer of funds.
 2. “Done”; if selected, this redirects the bank teller to the initial bank teller interface window.

The image shows a software interface for transferring funds from a checking account to a saving account. The main window is titled "Checking to Saving". It contains a label "Amount" next to a text input field that has the number "2" entered. Below this, there is a modal message box with the title "Message" and a close button (X). The message box contains an information icon (i) and the text "trying to move \$2 from checking to saving account", with an "OK" button below it. At the bottom of the main window, there are two buttons: "Transfer" and "Done".

- Also featured in the “Transfer” interface is a notification window that alerts the bank teller. This message box notifies the bank teller that the system is attempting to process the transfer transaction. If a customer's account has insufficient funds for the transaction the bank teller will be notified. If not, the banking system processes the transaction.

Withdraw/Deposit (Credit/Debit) Selection Interface

- This link to this interface is also included in the account access display. In either case, “Withdraw” or “Deposit”, this interface exhibits two buttons, one displaying and one Withdraw displaying Deposit. Along with this is an amount input box that allows the bank teller to enter and specify an amount of funds to withdraw or deposit. Upon selection the interface redirects the bank teller user to the selected interface screen.

The image displays two side-by-side interface screens for a bank teller system. The left screen is titled 'Withdraw' and the right screen is titled 'Deposit'. Both screens have a light gray background. In the upper left of each screen, the word 'Amount' is displayed next to a white rectangular input box. At the bottom of each screen, there are two blue rectangular buttons with white text. The top button is labeled 'Transfer' and the bottom button is labeled 'Done'.

- The “Withdraw” and “Deposit” amount interface in the bank teller interface exhibits how the customer user will enter an amount for withdrawal or deposit. The customer is prompted with an “Amount” input box which enables them to enter any amount of funds they wish to withdraw from their accounts.
- Included in both withdraw/deposit interface screens are two action buttons:
 1. “Withdraw/Deposit”; if selected, this allows the bank teller to initiate the transaction of funds in either case.
 2. “Done”; if selected, this redirects the bank teller back to the initial bank teller interface window

The image shows a 'Withdraw' interface. At the top, the word 'Withdraw' is centered. Below it, on the left, is the label 'Amount'. To its right is a text input field containing the number '9'. In the center of the interface is a 'Message' dialog box. The dialog box has a title bar with the word 'Message' and a close button (an 'X' in a circle). Inside the dialog box, there is an information icon (a lowercase 'i' in a circle) followed by the text 'trying to withdraw \$9'. Below this text is an 'OK' button. At the bottom of the 'Withdraw' interface, there are two buttons: 'Transfer' and 'Done', stacked vertically.

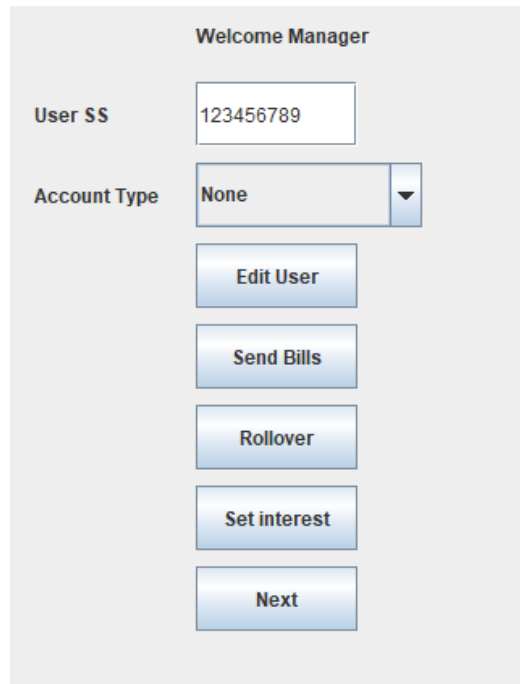
- Also featured in the “Withdraw” and “Deposit” interfaces is a notification window that alerts the bank teller. This message box notifies the bank teller that the system is attempting to process the transaction. If a customer's account has insufficient funds for the transaction the bank teller will be notified. If not, the banking system processes the transaction.

Reasons for Failed Message:

- Account balance too low
- Too many withdrawals that day
- Unsuccessful transfer of funds

Initial Bank Manager Interface

- This interface provides access to all information on all customer accounts. This portion of the banking system loads information from each accessible category upon selection. A Manager requires an input box. This input takes the customers account number (customer/accountID) and uses it to grab the list of account information the Manager has access to.



Welcome Manager

User SS 123456789

Account Type None

Edit User

Send Bills

Rollover

Set interest

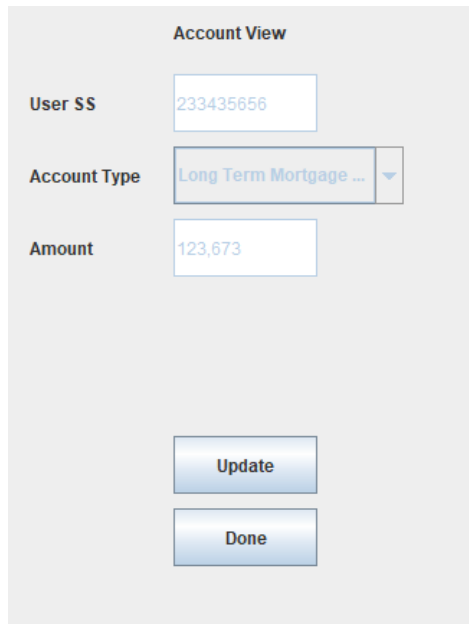
Next

- The “Welcome Manager” interface exhibits the first interface the bank manager interacts with when they enter the banking system . The first of which displays an “User SS” input box. Here the bank manager user is prompted to enter the customers 9 digit social security number which represents their customer ID.
Entry: Customer ID
Data Type: Int
Range: 9
- The bank manager interface also includes many other functionalities necessary for the bank manager to operate in the system. The manager interface features an “Account Type” drop down menu box. When selected the bank manager is provided a list of all the customers active accounts. This encompasses a customer's checking, savings, and loan accounts of all loan types.
- The welcome manager interface window sports multiple action buttons, this allows the bank manager user to:
 1. “Edit User”; if selected, the bank manager is redirected to the edit user interface window mentioned previously (‘Customer Interfaces’). There the bank manager is capable of making changes to the customers account information.
 2. “Send Bills”; if selected, the bank manager initiates the billing of the credit card and mortgage loan accounts within the banking system.

3. "Rollover"; if selected, the bank manager initiates the process that notifies customers of rollovers on their CD accounts.
4. "Set Interest"; if selected, the bank manager is redirected to the set interest interface window where they will be allowed to specify and set an interest rate paid monthly by customers on their checking or savings accounts.
5. "Next"; if selected, the bank manager is transferred to the manager account view interface window for the selected customer account.

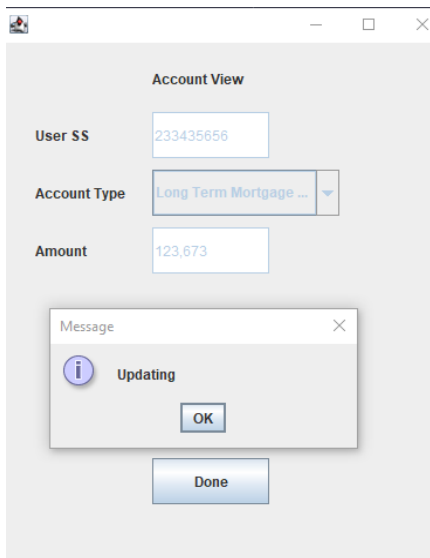
Bank Manager Account View Interface

- This interface will be displayed after the Manager has entered the specified customer ID and the account information has loaded. This interface displays the account record of choice. It includes a display of the customers ID and the current account type, along with a box displaying the current balance in the account.



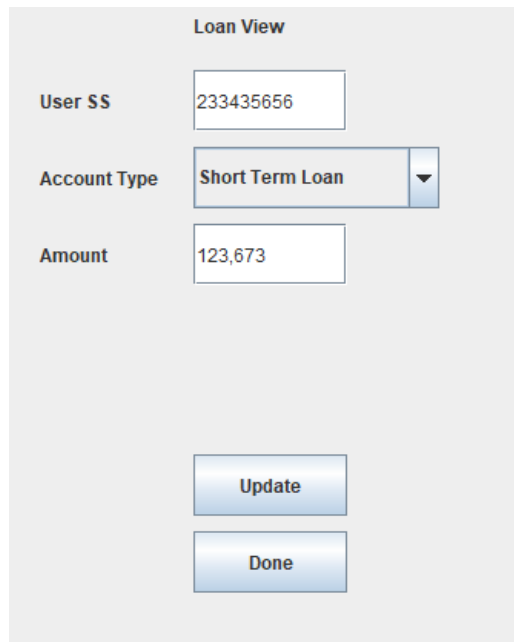
The screenshot shows a window titled "Account View". It contains three input fields: "User SS" with the value "233435656", "Account Type" with a dropdown menu showing "Long Term Mortgage ..." and a downward arrow, and "Amount" with the value "123,673". Below these fields are two buttons: "Update" and "Done".

- The "Account View" interface window in the bank manager system includes two action buttons which allows the bank manager user to:
 1. "Update"; if selected, the bank manager is provided the ability to update the customer's account. If the bank manager interacts with the account in the account view and then selects the update button, the banking system will update the account being viewed in the account view interface screen. The bank manager is then also displayed a "updating" notification pop up message box verifying that the account view is updating.
 2. "Done"; if selected, the bank manager is transferred back to the initial bank manager interface screen.



Bank Manager Loan View Interface

- This interface will be displayed after the Manager has entered the specified customer ID and the account information has loaded. This interface displays the loan account record of choice. It includes a display of the customers ID and the current loan account type, along with a box displaying the current balance in the account.



The screenshot shows a window titled "Loan View". Inside the window, there are three input fields on the left and their corresponding values on the right. The first field is labeled "User SS" and contains the value "233435656". The second field is labeled "Account Type" and contains the value "Short Term Loan" with a dropdown arrow on the right. The third field is labeled "Amount" and contains the value "123,673". Below these fields, there are two buttons: "Update" and "Done".

Loan View	
User SS	233435656
Account Type	Short Term Loan ▼
Amount	123,673
<div>Update</div> <div>Done</div>	

- Similar to the account view interface, the “Loan View” interface window in the bank manager system includes two action buttons which allows the bank manager user to:
 1. “Update”; if selected, the bank manager is provided the ability to update the customer's loan account. Identical to the “account view” interface screen, if the bank manager interacts with the loan account in the loan account view and then selects the update button, the banking system will update the loan account being viewed in the interface screen. The bank manager is then displayed a “updating” notification pop up box verifying that the account view is updating.
 2. “Done”; if selected, the bank manager is transferred back to the initial bank manager interface screen.

Send Bills Selection Interface:

- The link to this interface is included in the initial bank manager interface display. The send bills action button allows the bank manager to initiate the billing process within the banking system. Upon selection the interface notifies the bank manager that the banking system is sending the bill notices.

The screenshot displays a web interface titled "Welcome Manager". It features two input fields: "User SS" with the value "123,456,789" and "Account Type" with a dropdown menu currently set to "None". Below these fields are two buttons: "Edit User" and "Send Bills". The "Send Bills" button is highlighted, indicating it has been selected. A modal message box is overlaid on the interface, titled "Message", with a close button (X) in the top right corner. The message box contains an information icon (i) and the text "Sending Out Bill Notices Now.", followed by an "OK" button. Below the message box, a "Next" button is visible.

- Included in the "Send Bills" selection process is a notification window that alerts the bank manager that the bills are being sent out. Once selected the "Send Bills" action button initiates the billing process that sends bills out to all customers' credit card and mortgage accounts within the banking system. The bank manager does this on a monthly basis.

Rollover Selection Interface:

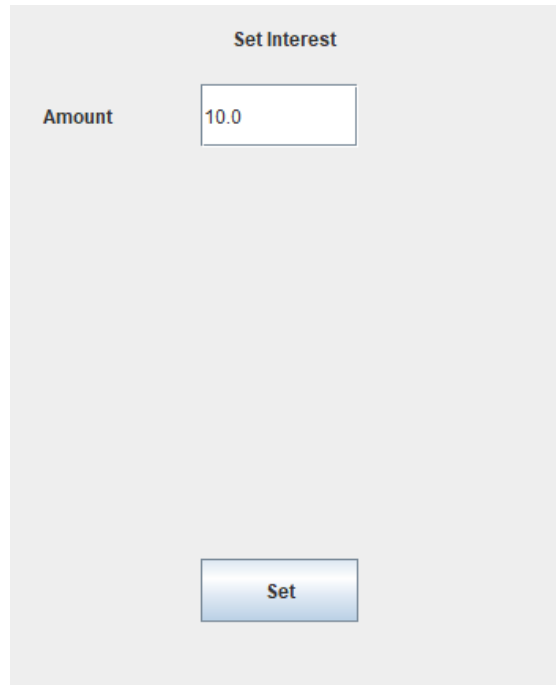
- The link to this interface is included in the initial bank manager interface display. The rollover action button allows the bank manager to initiate the rollover process on customer accounts within the banking system. Upon selection the interface notifies the bank manager that the banking system is sending the rollover notices.

The screenshot displays a web interface titled "Welcome Manager". It features two input fields: "User SS" with the value "123,456,789" and "Account Type" with a dropdown menu currently set to "None". Below these fields are three stacked buttons: "Edit User", "Send Bills", and "Rollover". A modal message box is open in the foreground, titled "Message" with a close button (X). The message box contains an information icon (i) and the text "Sending Out Rollover Notices Now.", with an "OK" button at the bottom.

- Included in the "Rollover" selection process is a notification window that alerts the bank manager that the rollover notices are being sent out. Once selected the "Rollover" action button initiates the rollover process that sends rollover notices to all customer CD accounts within the banking system. The bank manager initiates this based on the rollover date set for the CD account.

Bank Manager Set Interest Rate Interface:

- The link to this interface is included in the initial bank manager interface display. This button allows the manager to initiate the process that sets the interest rate the customer must pay to their checking or savings accounts. Upon selection the button redirects the manager to the set interest rate interface.
- This interface displays an input box that allows the manager user to enter a specified interest rate amount. This input box accepts the amount inserted and sets the interest rates paid monthly on checking and savings accounts.



The image shows a web interface titled "Set Interest" in a bold, black font at the top center. Below the title, on the left side, is the label "Amount" in a bold, black font. To the right of the label is a text input box with a thin black border, containing the value "10.0". At the bottom center of the interface is a rectangular button with a blue gradient and a thin black border, labeled "Set" in a bold, black font.

- This interface also includes a “Set” button that allows the user to set the amount of interest specified in the input box above. Once selected the “Set” action button processes the newly changed interest rate and applies it to the customers accounts. After the interest rate has been set and processed the bank manager is then transferred back to the initial bank manager interface window.