1. Loan Module

1.1 Description

In this module the user can grant loans to their registered customers. It can also show the loaning and payment history of each selected customer.

1.2 Defaults

Upon opening of the module, the following instances can be observed as default:

a) The "SAVE" and "DELETE" buttons are disabled.
b) Customer's Picture is set to default picture.
c) "Customer's Current Loan" list is empty.
d) "Customer's Previous Loan Records" list is empty.
e) "Transaction Number" is pre-loaded adding an additional 1 to the previous transaction number used.
f) Under "Loan Specification":
   i) "Principal Amount" textbox is blank.
   ii) "Percent" textbox is set to 0%.
   iii) "Interest" textbox and "Total Amount" textbox is set to 0 and locked for editing.
   iv) "Deadline" is set to the current system date.
   v) "Penalty" textbox is blank.
   vi) "Notes" textbox is blank.
g) "Barcode" textbox is set to blank.
h) "Credit Line" label is set to 0.
i) "First Name", "Middle Initial", "Last Name", "Address" and "Contact" textboxes are set to blank and locked for editing.

1.3 Process Algorithm

In order to use the module properly, this process algorithm should be followed.

Step 1 – Search for a registered customer with the use of a barcode reader or by typing directly on the "Barcode" textbox. "First Name", "Middle Initial", "Last Name", "Address" and "Contact" textboxes will automatically be filled in afterwards.
Step 2 – Completely fill out the required data in "Loan Specification".
   The required data are as follows:
      a. "Principal Amount"
      b. "Percent"
      c. "Deadline"
   "Interest", "Total Amount", and "Penalty" textboxes will automatically be computed.
   "Notes" textbox is optional.
Step 3 – Click "Grant Loan" button.
Step 4 – Click "Refresh" button to return to default
Step 5 – Click "Close" button to exit module.

1.4 Expected Outcome

Action	Expected Outcome on Success	Expected Outcome on Failure
Click "Close" button	Module will unload	Module will remain shown.
Click "Refresh" button	Module will be set to default settings.	All or some values will not be set to its default settings.
Fill out "Barcode" textbox	"First Name", "Middle Initial", "Last Name", "Address" and "Contact" textboxes' values will automatically be filled out.	"First Name", "Middle Initial", "Last Name", "Address" and "Contact" textboxes' values will remain blank.
	"Customer's Current Loan" list will be filled if there is an existing loan of the searched customer.	"Customer's Current Loan" list will be filled of an existing loan of another customer.
	"Customer's Previous Loan Records" list will be filled if there are previous loans of the searched customer.	"Customer's Previous Loan Records" list will be filled of an existing loan of another customer or loss some previous loan records of the searched customer.
Input on "Principal Amount" textbox	"Total Amount" and "Penalty" textboxes' values will automatically be computed correctly.	"Total Amount" and "Penalty" textboxes' values will remain 0 and blank, consecutively or will automatically be computed with errors.
Select 0% from "Percentage" dropdown selection	"Total Amount" textbox value will automatically be computed correctly.	"Total Amount" textbox value will remain 0 or will automatically be computed with errors.
	"Penalty" textbox value will automatically be computed correctly.	"Penalty" textbox value will remain blank or will automatically be computed with errors.
Select other percentage from "Percentage" dropdown selection	"Total Amount" textbox value will automatically be computed correctly.	"Total Amount" textbox value will remain 0 or will automatically be computed with errors.
	"Penalty" textbox value will automatically be computed correctly.	"Penalty" textbox value will remain blank or will automatically be computed with errors.
	"Interest" textbox value will automatically be computed correctly.	"Interest" textbox value will remain 0 or will automatically be computed with errors.
Select deadline date on "Deadline"	"Deadline" date value will be changed by the selected date.	"Deadline" date value will remain.

Action	Expected Outcome on Success	Expected Outcome on Failure
Click "Grant Loan" button (Complete Data)	A message box with the message "Loan successfully granted to ..." will appear.	A message box with either of the three messages: "...has existing unpaid loans!", "Principal amount exceeded credit line!", "Principal amount exceeded credit line!".
	"Loan Specification" values will be set back to default.	"Loan Specification" values that was inputted/selected will remain.
	"Customer's Current Loan" list will be filled with the newly granted loan.	"Customer's Current Loan" list will remain empty.
Click "Grant Loan" button (Incomplete Data)	A message box with the message "Please input Principal Amount!" will appear.	A message box with the message "Loan successfully granted to ..." will appear.
	"Loan Specification" values that was inputted/selected will remain.	"Loan Specification" values will be set back to default.
	"Customer's Current Loan" list will remain empty.	"Customer's Current Loan" list will be filled with the newly granted loan.
Click "Grant Loan" button (Without searching for registered customer)	Nothing will happen.	Action will have a result aside from nothing.