Loan Management Project

By: Peter Dizor, Jacob Bianco and Thomson Toms

As a group, we encountered a variety of challenges while completing our project. Initially, we struggled to coordinate meeting times that worked with our busy schedules outside of class. Additionally, we faced the task of dividing the workload fairly among group members, as certain components such as the JAVA and SQL coding required significantly more time and effort. Finally, we encountered a significant obstacle when it came to submitting the project on time due to connectivity issues with the Sun Lab computers and Oracle database, which ultimately caused a one-day delay in our completion.

Though we are very satisfied with the outcome of our final copy of the project, there is one thing we wish we had more time to do and that is implementing a functional Graphical User Interface (GUI) to easily navigate our project. We recognize the immense value a GUI would have brought to the project but given our time constraint of 1-2 weeks and the numerous external responsibilities we had to juggle, incorporating a GUI into the project was simply not a feasible option.

Collectively, we are immensely appreciative for the valuable opportunity afforded to us by this project. Not only did we gain a wealth of knowledge and experience in our field, but we also developed essential teamwork and communication skills that will undoubtedly prove invaluable in our future endeavors. We firmly intend to apply the expertise we acquired throughout the duration of this project to our future jobs and assignments, confident in our newfound ability to tackle challenges and execute tasks with precision and efficiency. The lessons learned and skills honed throughout this project will undoubtedly serve as a firm foundation for our continued growth and development as professionals.

Screen Shots (Some of the options)

Adding a Customer

```
************************************************
Welcome to our Loan Management Application!
************************************************

Please enter a number to select an option.
--------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program

Input:
1
Please enter the customer's ID: 9999
Please enter the customer's name: Peter Dizor
```

Browsing a List of Customers

```
Please enter a number to select an option.
--------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program

Input:
5
                    Customers
--------------------------------------------
ID: 1234         Name: John Doe
ID: 9999         Name: Peter Dizor
ID: 4202         Name: Jacob Bianco
ID: 1010         Name: Jane Doe
```

Browsing a list of loans

```
Please enter a number to select an option.
-------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program

Input:
10
|                     Loan 1110
-------------------------------------------------
Loan Amount: 10000.0      Number of Payment: 2
Interest Rate: 0.06       Amount Paid: 4000.0
Start Date: 04/23/2023    End Date: 04/23/2024
Loan Type: Auto
-------------------------------------------------
                     Loan 1108
-------------------------------------------------
Loan Amount: 20000.0      Number of Payment: 3
Interest Rate: 0.04       Amount Paid: 10000.0
Start Date: 04/23/2023    End Date: 04/23/2025
Loan Type: Mortgage
```

Removing a Loan

```
Input:
8
Please enter the loan's ID that you wish to remove: 1108
The loan with an ID of 1108 was removed from the system.

Please enter a number to select an option.
-------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program
```

Result of removing loan

```
Input:
10
                Loan 1110
-----------------------------------------------
Loan Amount: 10000.0       Number of Payment: 2
Interest Rate: 0.06        Amount Paid: 4000.0
Start Date: 04/23/2023     End Date: 04/23/2024
Loan Type: Auto
-----------------------------------------------
                Loan 1109
-----------------------------------------------
Loan Amount: 100000.0       Number of Payment: 3
Interest Rate: 0.02         Amount Paid: 20000.0
Start Date: 04/20/2023      End Date: 04/20/2030
Loan Type: Personal
-----------------------------------------------

Please enter a number to select an option.
-------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program
```

Making a Loan Payment

```
Please enter a number to select an option.
---------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program

Input:
7
Please enter in the loan_ID:
1109
Please enter in the payment amount (USD):
30000
A $30000.0 payment has been made to loan 1109.
```

Browsing loans after adding a Loan

```
Input:
10
|                 Loan 1110
-------------------------------------------------
Loan Amount: 10000.0        Number of Payment: 2
Interest Rate: 0.06         Amount Paid: 4000.0
Start Date: 04/23/2023      End Date: 04/23/2024
Loan Type: Auto
-------------------------------------------------
                 Loan 1109
-------------------------------------------------
Loan Amount: 100000.0        Number of Payment: 4
Interest Rate: 0.02         Amount Paid: 50000.0
Start Date: 04/20/2023      End Date: 04/20/2030
Loan Type: Personal
-------------------------------------------------
```

Exiting the Program

```
Please enter a number to select an option.
-------------------------------------------
1:  Add a Customer
2:  Edit Customer Information
3:  Remove a Customer
4:  Search for a Customer
5:  Browse List of Customers
6:  Add a Loan
7:  Make a Loan Payment
8:  Remove a Loan
9:  Search for a Loan
10: Browse for a Loan
11: See a Customer Loan
12: Exit Program

Input:
12
|Thanks for using our Loan Management Application!
```

Contribution Percentages

Thomson Toms: 30%

Peter Dizor: 30%

Jacob Bianco: 40%