

**Interamerican University of Puerto Rico  
Aguadilla Campus  
Department of Science and Technology**



**Course Project  
COMP 4400  
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## I. Project Description

The Video Store MANA wants to get rid of their old legacy system (which is a command based application) and get a new Multi-User GUI based application. The following list represents the features they would need in order to be able to switch from the old legacy system to a new application:

### Admin Screens

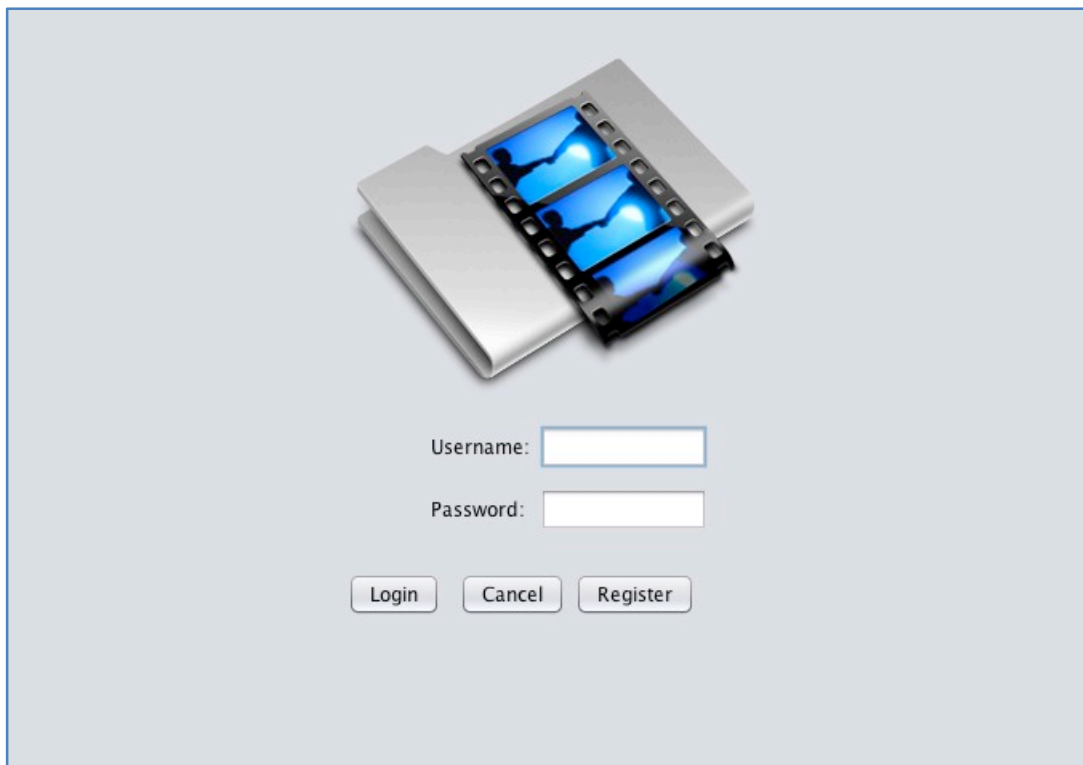
- Manage Movies Information (Ability to Create, Edit and Delete Movies).
- Manage reservations. (These includes reservations made by the users)
- Ability to see currently rented movies.

### User Screens

- Allow users to register into the system.
- Allow users to edit their account information.
- Allow users to rent a movie within the system.
- Allow users to see their rentals history.

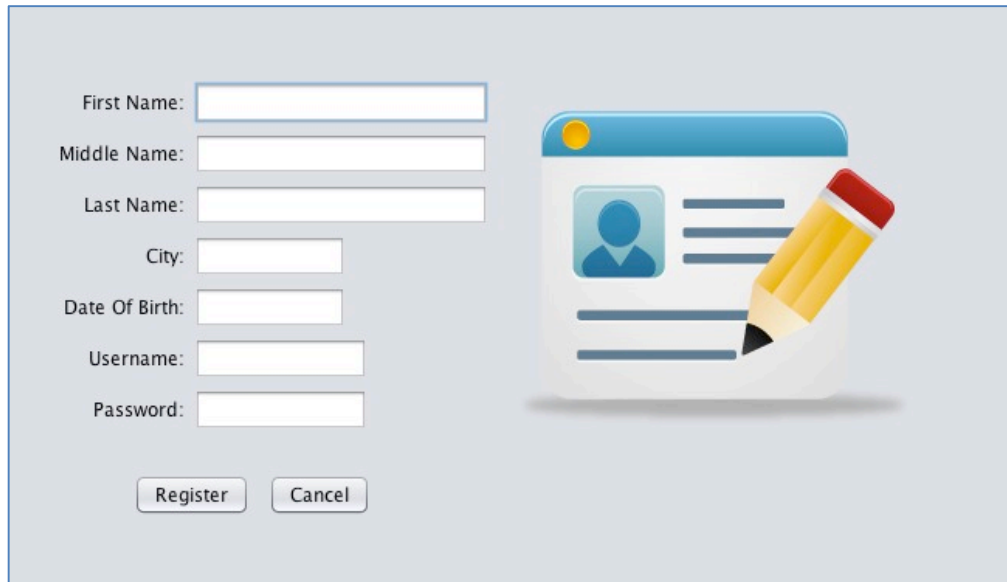
Based on the previous needs the manager has designed a few windows mocks that should be used as reference while developing the GUI forms of the new application. **Figure 1** shows a mock of the main window, which should be the first thing the user sees when the application starts up.

## User Screens



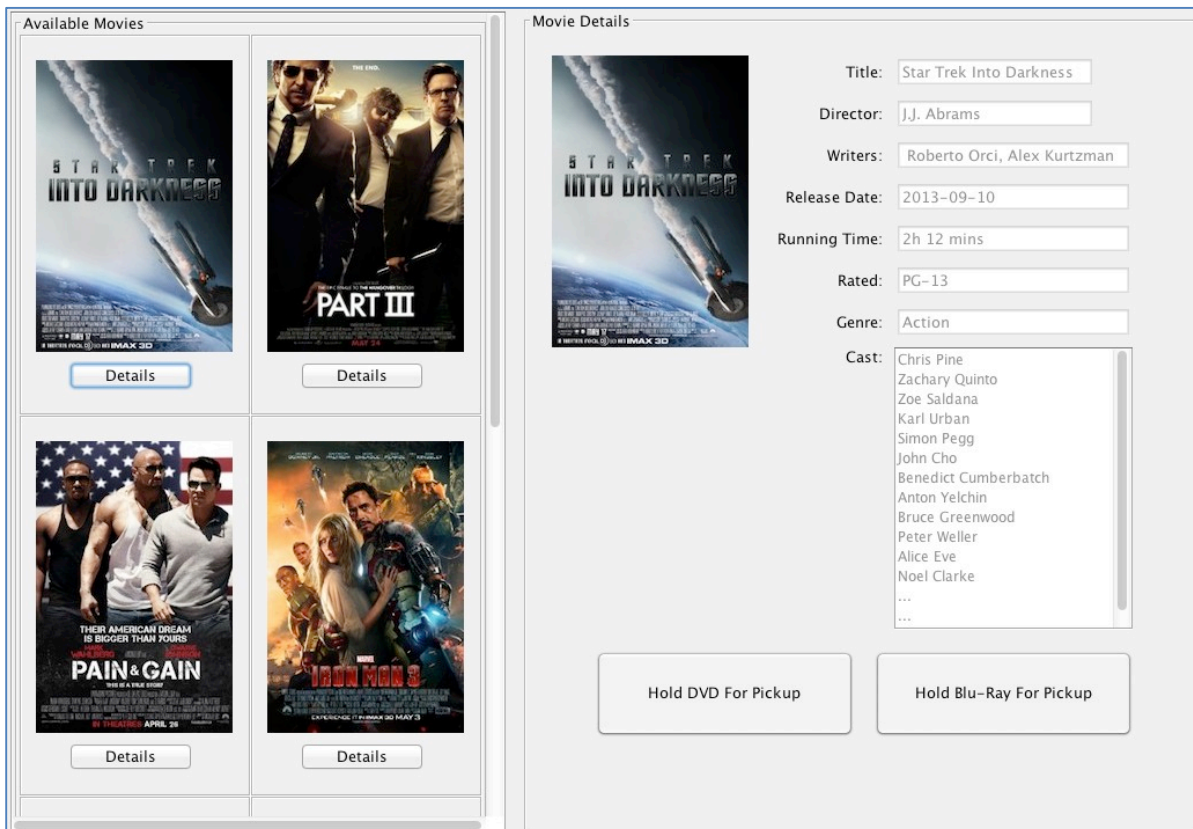
**Figure 1**

If the user clicks on the Register button the following window (**Figure 2**) needs to show up. Note: If the user completes a registration he/she will be redirected to the login screen (**Figure 1**).

A registration form window with a light gray background. On the left, there are seven input fields labeled: First Name, Middle Name, Last Name, City, Date Of Birth, Username, and Password. At the bottom left are two buttons: 'Register' and 'Cancel'. On the right, there is a graphic of a document with a blue header, a blue person icon, and a yellow pencil with a red eraser.

**Figure 2**

Once the user gets into the application a similar GUI to the following mock will show up. Note: Additionally, the screen needs to provide the functionality to filter by movie genre.

A GUI for movie selection and details. The left panel, titled 'Available Movies', shows four movie posters in a 2x2 grid: 'Star Trek Into Darkness', 'The Dark Knight Rises', 'Pain & Gain', and 'Iron Man 3'. Each poster has a 'Details' button below it. The right panel, titled 'Movie Details', shows details for 'Star Trek Into Darkness'. It includes fields for Title, Director (J.J. Abrams), Writers (Roberto Orci, Alex Kurtzman), Release Date (2013-09-10), Running Time (2h 12 mins), Rated (PG-13), and Genre (Action). A scrollable list of the cast is shown below. At the bottom are two buttons: 'Hold DVD For Pickup' and 'Hold Blu-Ray For Pickup'.

**Figure 3**

Finally, once the user clicks on any of the movies for Pickup a confirmation screen needs to show up with the reservation details (Price per day, Reservation Date, Time for return, Additional fees, etc).

## Admin/Manager Screens

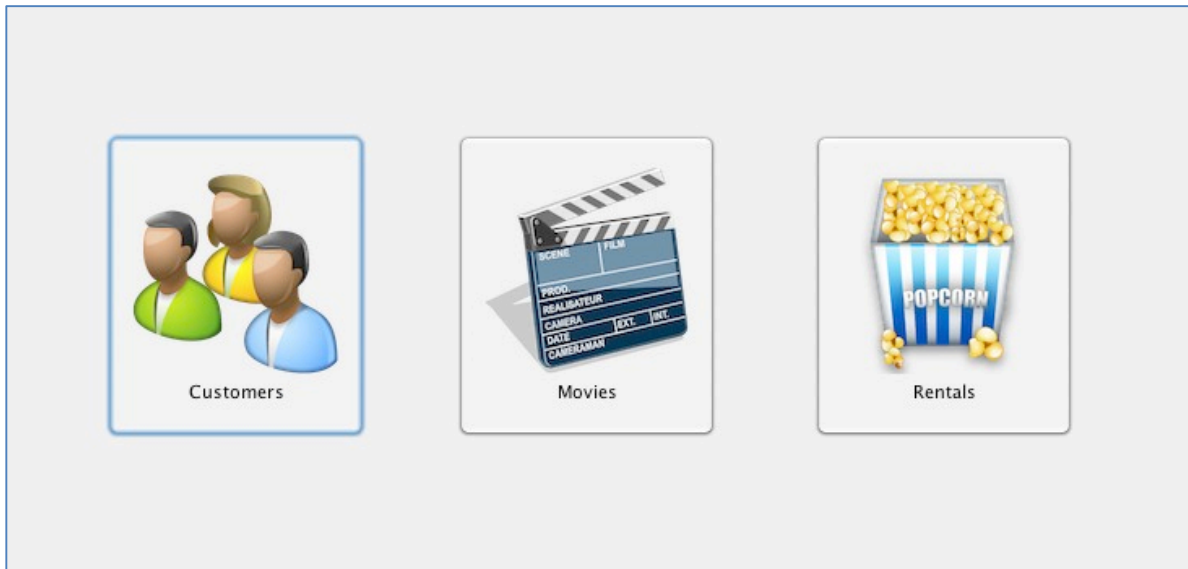


Figure 4

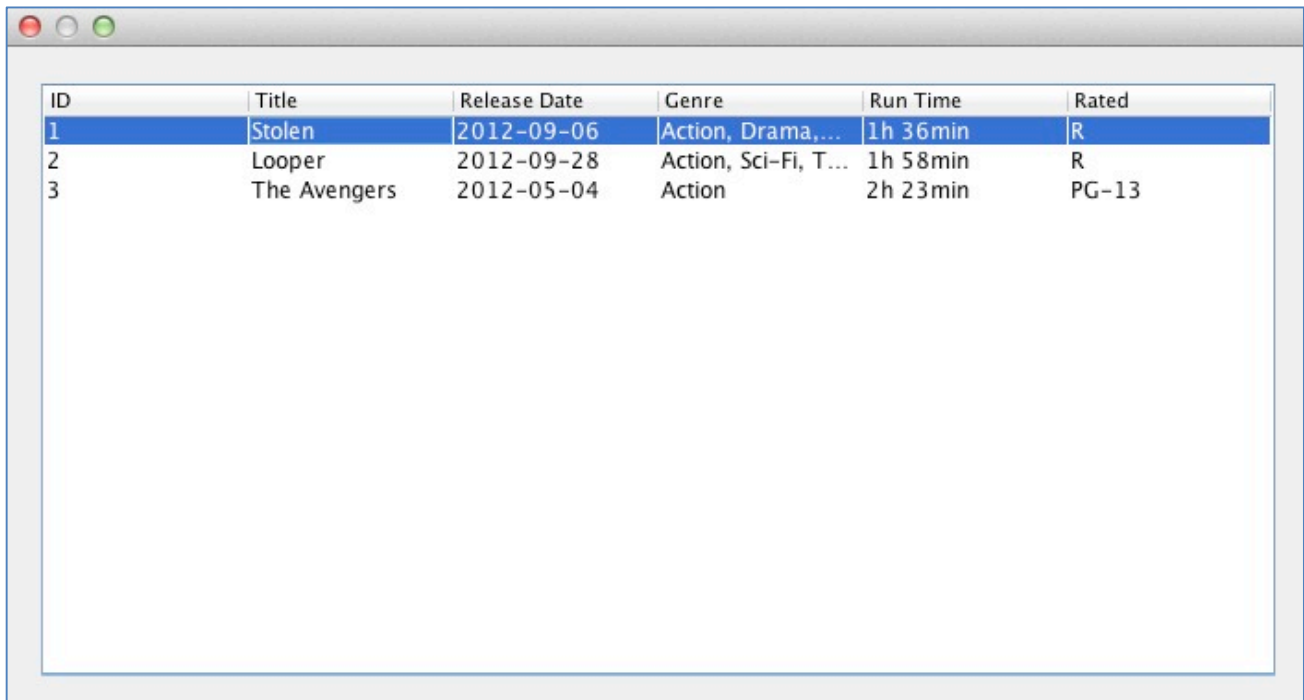
If the user clicks on the Customers button a new window similar to the one shown in **Figure 5** will appear. In this window the user should have the functionality to add new customers and Edit or Delete exiting customers.

ID	FirstName	LastName	Address	City	Zip Code	Phone
1	Miguel	Nieves	1234 ST Lakers	Aguadilla	00603	787-555-5555
2	Juan	Del Pueblo	0000 Anywhere	TheTown	00000	N/A
3	Manolo	Cintron	PO Box 01	San Juan	12345	787-999-0001
4	Juanita	Comay	PO Box 331	San Seba...	01238	787-333-3333
5	Canseco	Ruiz	Road #0 KM 12	Rincon	11111	

AddEditDelete

Figure 5

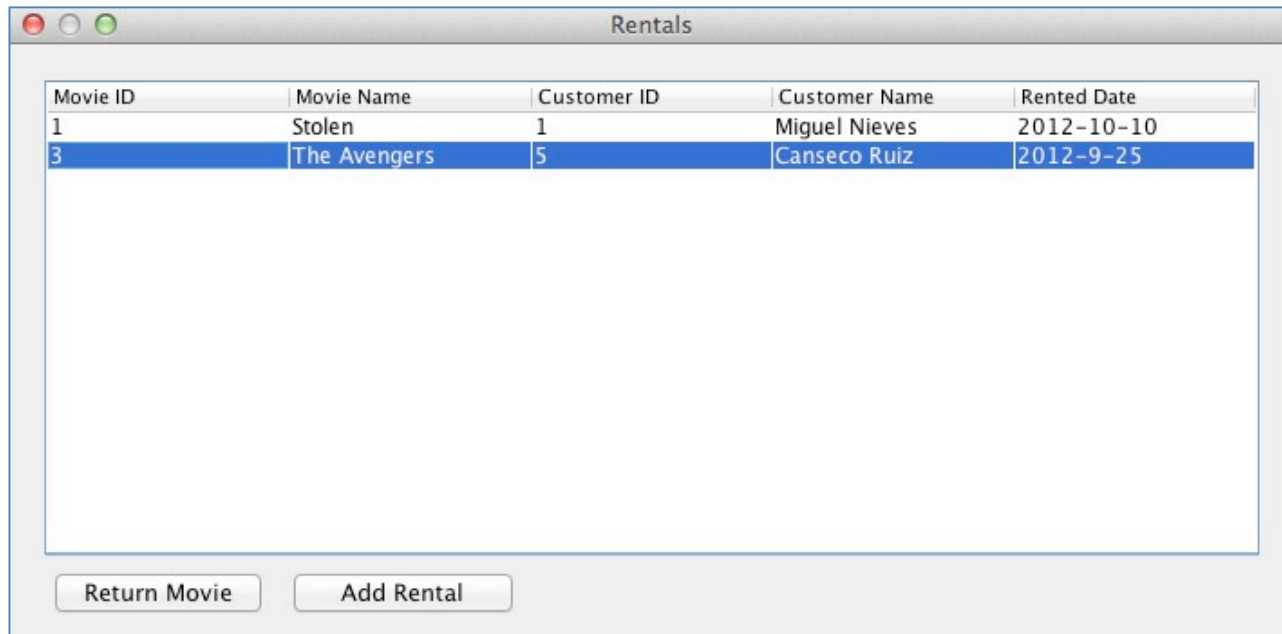
Furthermore, if the user clicks on the Movies button a new window similar to the one shown in **Figure 6** will appear. In this window the user should have the functionality to add, edit or delete movies from the application. Note: This screens need to have all the information presented on Figure 3 (Movie Details Section).



ID	Title	Release Date	Genre	Run Time	Rated
1	Stolen	2012-09-06	Action, Drama,...	1h 36min	R
2	Looper	2012-09-28	Action, Sci-Fi, T...	1h 58min	R
3	The Avengers	2012-05-04	Action	2h 23min	PG-13

**Figure 6**

If the user clicks on the Rentals button a new window similar to the one shown in **Figure 7** will appear. This window will show/display all the currently rented movies in a table container and will allow the user to manage these rentals.

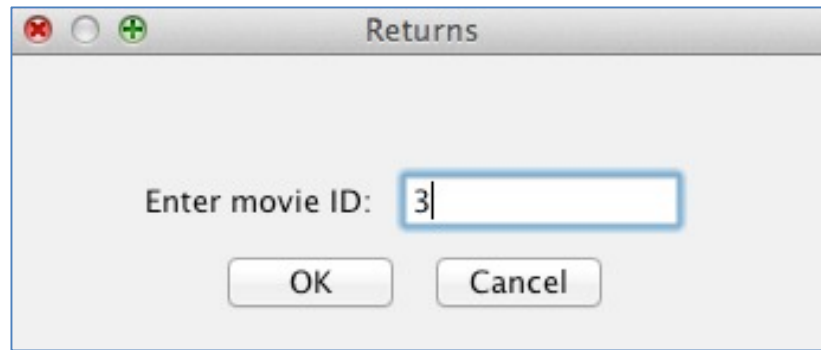


Movie ID	Movie Name	Customer ID	Customer Name	Rented Date
1	Stolen	1	Miguel Nieves	2012-10-10
3	The Avengers	5	Canseco Ruiz	2012-9-25

Return Movie      Add Rental

**Figure 7**

For example if the user clicks on the Return Movie button a new window similar to the one shown in **Figure 8** will appear. In this window the user will enter the movie's ID of the movie been returned (Let's use movie ID 3 for this example).

A dialog box titled "Returns" with a standard macOS-style title bar (red, yellow, green buttons). The main content area is light gray. It contains the text "Enter movie ID:" followed by a text input field containing the number "3". Below the input field are two buttons: "OK" and "Cancel".

Enter movie ID: 3

OK Cancel

**Figure 8**

After the user clicks on the OK button another window with the details of the rental similar to the one shown in **Figure 9** will show up. If the user click on the Complete return the window will disappear and the returned movie will be removed from the currently rented movies table from **Figure 7**.

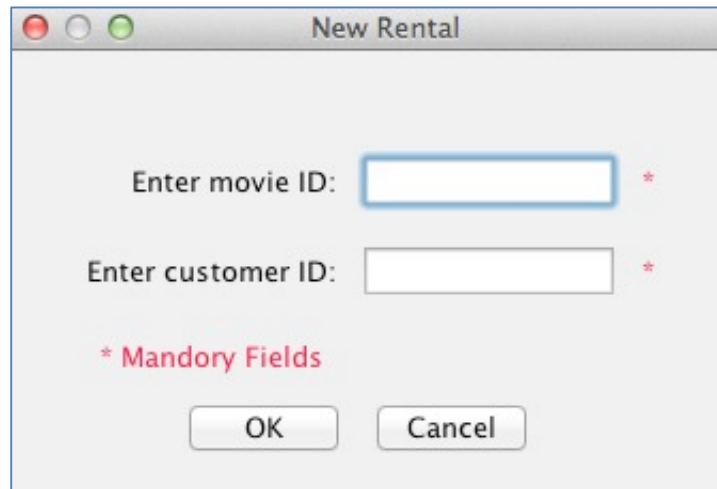
A dialog box showing rental details. It has a title bar with red, yellow, and green buttons. The content is centered and lists the following information: Movie: The Avengers, Customer: Canseco Ruiz, Rented On: 2012-09-25, Returned On: 2012-09-28, Cost: \$2.00 per day, Total Days: 3, and Total Cost: \$6.00. At the bottom are two buttons: "Complete Return" and "Cancel Return".

Movie: The Avengers  
Customer: Canseco Ruiz  
Rented On: 2012-09-25  
Returned On: 2012-09-28  
Cost: \$2.00 per day  
Total Days: 3  
Total Cost: \$6.00

Complete Return Cancel Return

**Figure 9**

In the other hand, if the user clicks on the Add Rental button from the form show in **Figure 7** a new window similar to the one shown in **Figure 10** will show up. In this window the user will enter the movie and/or customer IDs of the rental (This will depend if the user already made a reservation, then the system will just require the customerID and it will be able to retrieve the reservation details. In the other hand if the user did not have any reservation then the customerID and movieID will be required) and after the clicking the OK button the rental needs to be added to the table containing all the rentals show in **Figure 7**.



**Figure 10**

## II. Requirements

The following list represents the technologies you will use to complete your project:

Programming Language: JAVA

IDE: Netbeans 7.0 or newer

Database (DBMS): MySQL

After you complete your project, you will create and send a zip file named “*YourNameCOMP4000*” which will include the Netbeans program (with all the source code) and your MySQL database export file. **You will have to make sure that your program works on any computer. Programs that do not compile will be graded with 0 points.**

## III. Score

Your score will be based on the overall functionality of the Video Store Application and the Database Model you design. The maximum score will be 100 points.

## IV. Conclusion

This project will help you understand how to use a database as the backend of an application. Which is one of the most commonly used strategies now a days when developing commercial applications like websites and mobile applications. I will be posting a document on how to make a connection from a Java application into a MySQL database. If you have any doubts about the project please post them in the forum, so everybody can see and learn from all the questions. **HAPPY CODING!!!!**