# First Row Movies

Software Requirement Specifications (1.0)

# Revision History

| Date | Version | Description | Author |
|---|---|---|---|
| 10/17/2012 | 0.1 | Draft | Mitchell Verter |
| 10/18/2012 | 0.3 | Draft | Mitchell Verter |
| 10/19/2012 | 1.0 | 1.0 Release | Mitchell Verter |

# First Row Movies Founders

| Name | Role |
|---|---|
| Mitchell Verter | Project Manager, coder |
| Jorge Yau | Chief Technology Officer, coder |
| Shamrat Basnet | Front-end Programmer, coder |
| Lovepreet Singh | Back-end Programmer, coder |

# Table of Contents

Software Requirements Specification

1. Introduction
   1.1. Purpose

   First Row Movies (FRW) promises to be the premiere community for purchasing and sharing movies over the web.

   This Document will detail the features of First Row Movies, and will serve as a guide to developers and as a legal document for prospective clients.

   1.2. Scope.

   1.2.1. User: This is the base class for all users of the system. All users of the System can search through all the movies, browse each movie, read comments and complain about inappropriate comments,

   1.2.2. Guest User: The Guest User class inherits all the functionality of User. In addition, the Guest User has the capacity to register to become a user, to login as a user, and to retrieve a lost username.

   1.2.3. Registered User: Registered User is an abstract base class that inherits all the functionality of User. In addition, the Registered user can watch a movie, reset a password, and logout from the system.

   1.2.4. Customer User: Customer User inherits all the functionality of Registered User. In addition, the Customer User can rate movies, comment on movies, view a shopping cart, and checkout movies.

   1.2.5. Admin User: Admin User inherits all the functionality of Registered User. In addition, the Admin User can erase comments, warn users, suspend users, and delete users.

   1.2.6. Movie: Each movie is categorized according to its genre, director, actors, and date.

   1.2.7. By keeping track of each user's history of movie purchases and by comparing the user's interests with other users with similar interests, First Row Movies will be able to recommend new purchases to customers.

1.3. Acronyms and Abbreviations

1.3.1. FRM: First Row Movies

1.3.2. U: User

1.3.3. GU: Guest User

1.3.4. RU: Registered User

1.3.5. CU: Customer User

1.3.6. AU: Admin User

1.3.7. SRS: Software Requirements Specification

1.3.8. GUI: Graphical User Interface.

1.3.9. FSM: Finite State Machine.

1.3.10. DB: Database.

1.3.11. ERCD: Entity-Relation Class Diagram.

1.4. References

Appendix A: User Interface Prototypes

1.5. Summary

The rest of this SRS is organized as follows:

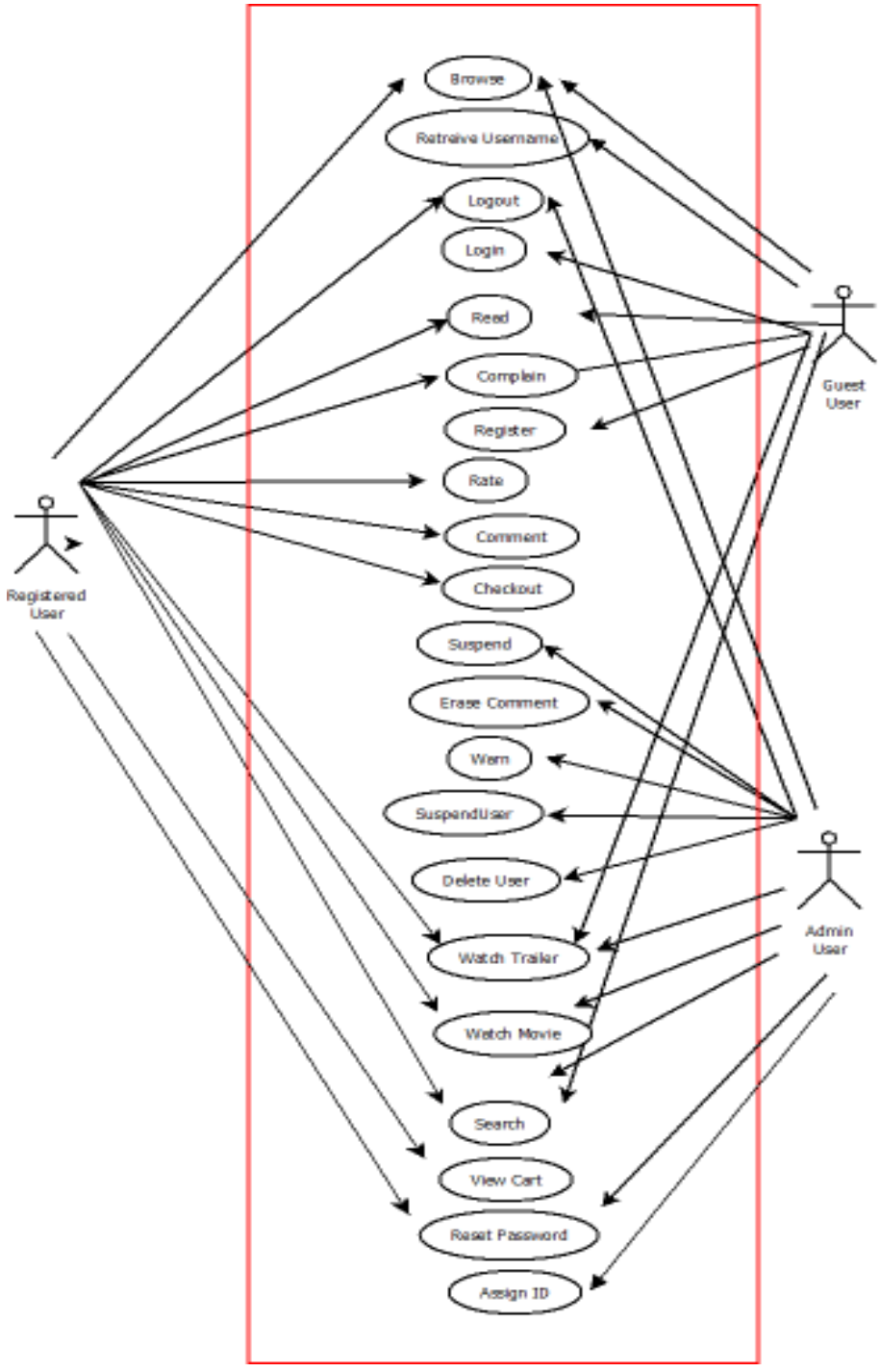
1.5.1. Section 2: Gives the overall description of FRW. It contains the Use-Case diagram and descriptions for FRW. Section 2 also contains the assumptions and dependencies of the system.

1.5.2. Section 3: Gives specific software requirements and functionalities in the form of Mini Use-Case diagrams along with accompanying Collaboration diagrams, Finite State Machine of the system, and ER Class diagram of the system. This section also contains supplementary software requirements of the systems.

Appendix: The appendix contains user interface prototypes for the system.

# 2. Overview

## 2.1.1 User Case Diagram



2.1.2 Use Case Descriptions

A) User **(U)**

1) **Read Abstract:** Any U may read the abstract (summary, id, title, stars, director, year, etc) of a movie.
2) **Read Comments:** Any U may read the comments made about a movie.
3) **Complain:** Any U may complain about a comment deemed to be inappropriate. Flagged comments will sent to AU for review.
4) **Browse:** Any U may browse a search result.
5) **Search:** Any U may search for movies using any combination of search vectors (id, title, starts, director, year, etc.)

B) Guest User **(GU)**

1) **Login:** Any GU can login to the system, which transforms GU into a CU or AU .
2) **Register:** Any GU may register to become a CU.
3) **Retrieve Username:** Any CU who has forgotten her/his user name may request (as GU) that user information will be emailed to her/him.

C) Registered User **(RU)**

1) **Logout:** Any RU (CU or AU) may log out of her or his account.
2) **Watch Movie:** Any RU (CU or AU) may watch movies online.
3) **Reset Password:** Any RU (CU or AU) may reset her or his password from the Account Settings page.

D) Customer User **(CU)**

1) **Rate:** Any CU may give a rating to a movie (0.0 to 5.0, 0.5 increment.) Ratings will be evaluated according to user's history with Item and added to ratings DB.
2) **Comment:** Any CU may comment upon a movie.
3) **Checkout:** Any CU may checkout selected items for purchase.
4) **View Cart:** Any CU may review the items selected for purchase and deselect any of them.

E) Admin User **(AU)**

1) **Suspend User:** Any AU may suspend any CU.
2) **Erase Comment:** Any AU may erase comment flagged for deletion.
3) **Warn:** Any AU may send warnings to customer.

**Delete User:** Any AU may delete customer from system.

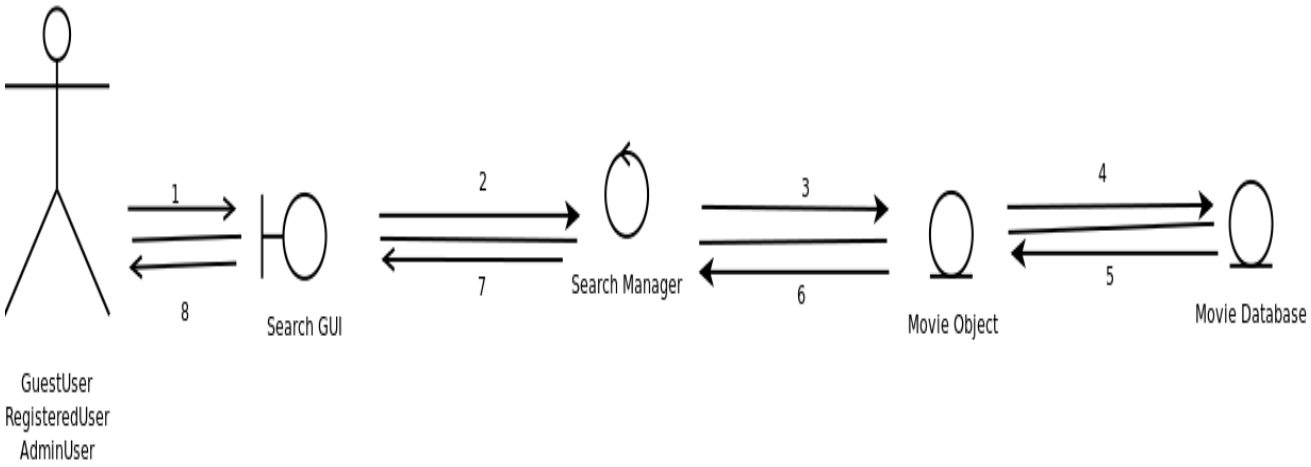
**a. The client can run on any contemporary web browser that supports standard HTML, CSS 2.0, JavaScript, and PHP 5.0. It should run well on any contemporary web browser, including the latest versions of Internet Explorer, Firefox, Chrome, Safari, and Opera..**

**b. The server must run a PHP 5.0 processing daemon and a MySQL database. Any LAMP/WAMP setup should suffice, as will any other server (IIS, etc) with PHP and mySQL modules installed.**

# 3. Specific Requirements

## 3.1 Collaboration Diagrams

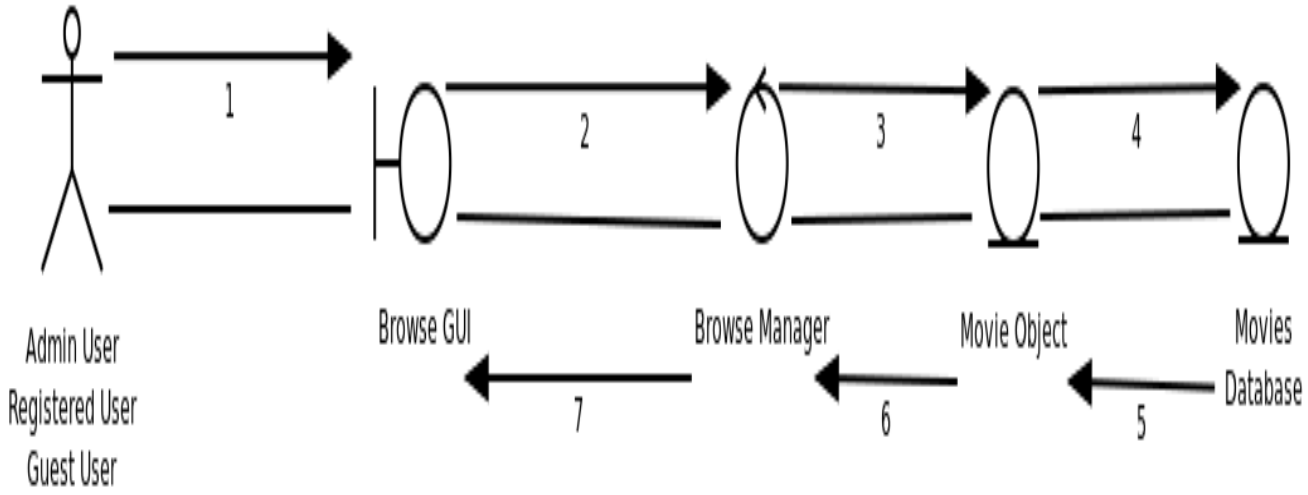
### 3.1.1 Shared Collaboration Diagrams




1. GuestUser, RegisteredUser, or AdminUser click on Search GUI.
2. Search GUI transfers the information to search manager.
3.Search manager passes the information to movie object.
4. Movie object verifies the search by looking into the database.
5.Movie Database passes the verified information to user object.
6. User object processes the information to search manager.
7. The information is published in Search GUI.
8. GuestUser/RegisteredUser/Visitor gets the result for searched information.

Exception
5. Search result not found
6. Empty database information sent to search manager
8. GUI displays "No Results Found"

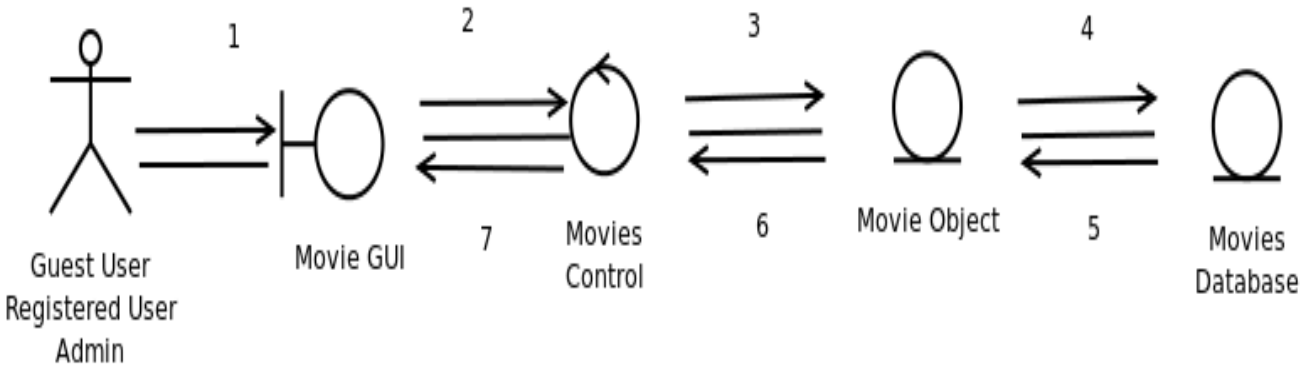
**Figure A1: Search**




**Browse Collaboration Diagram**

1. Admin User, Registered User, or Guest User visits the Browse
2. User information passed to Browse manager
3. Pass info to movie object
4. Browse object queries movies database
5. Return list of movies that matches browse selection
6. Pass result to Browse manager
7. Admin User, Registered User, or Guest User see the updated Browse GUI with list of Movies

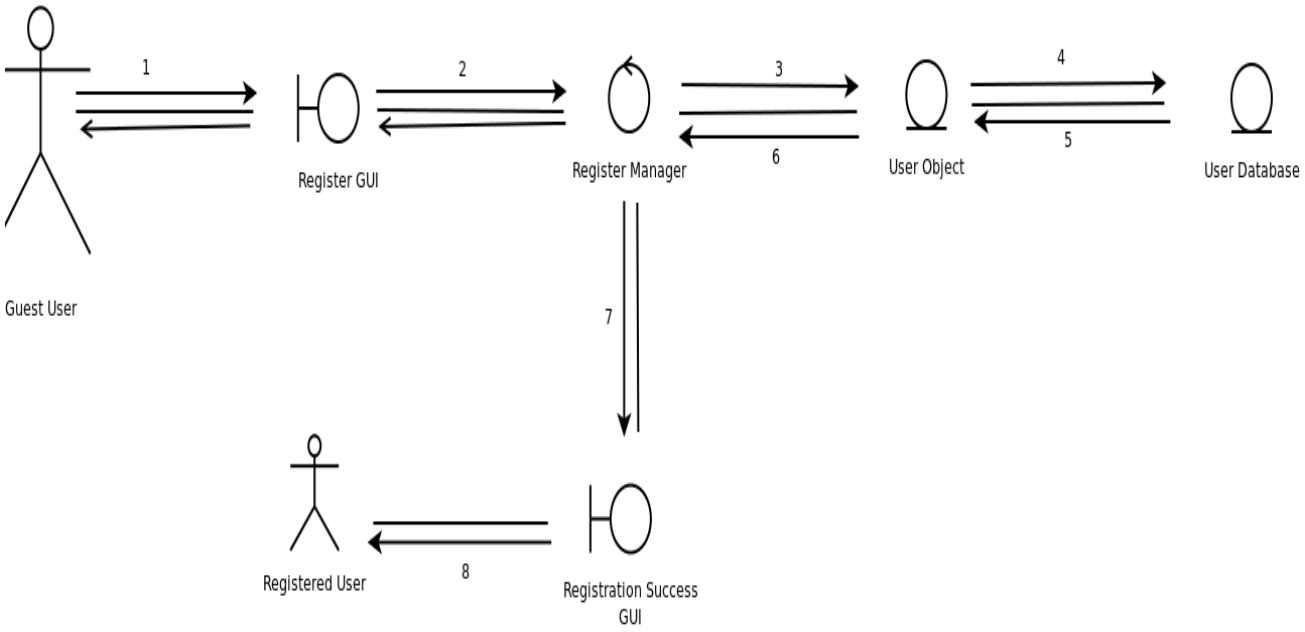
**Figure A2: Browse**




1. GU/RU/AU clicks on the Movies GUI
2. Request is sent to the Movies control module for movie=movieID
3. A movie object is generated
4. Request is sent to the Movies database containing movieID
5. MovieObject is initialized with
   (Name, Year, Genre, Director, Stars, RunningTime, Summary)
4. Information about the Movie is returned to Control
5. Abstract of Movie
   (Name, Year, Genre, Director, Stars, RunningTime, Summary)
   displayed on GUI

**Figure A3: View Movie Info**

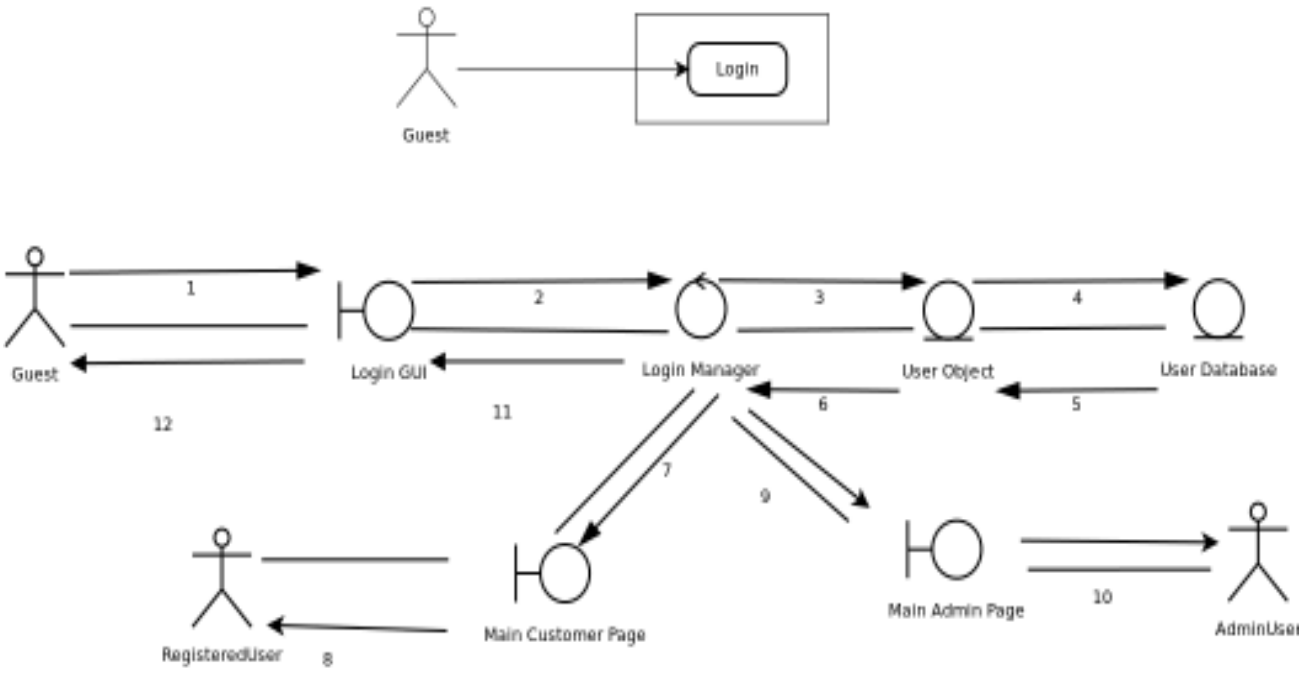
# 3.1.2 Guest User Collaboration Diagrams




1. Guest User clicks on 'Register GUI' to be registered as a user .
2. The information is then passed to the register object.
3. This information is passed to the user object and generates password.
4. The information is stored in the user database.
5. User database send the information to user object.
6. The correct information passed from the user object is then passed to register object.
7. This opens a new GUI and welcomes the new user.
8. This turns a Guest User be a Registered User.

Exceptional Case:
1.The visitor enter the information and clicks 'Submit'.
2.The information is passed to Register Object.
9. The processed information is wrong so is returned to Register GUI.
10. Guest User is specified the information provided is wrong.

# B1: Register



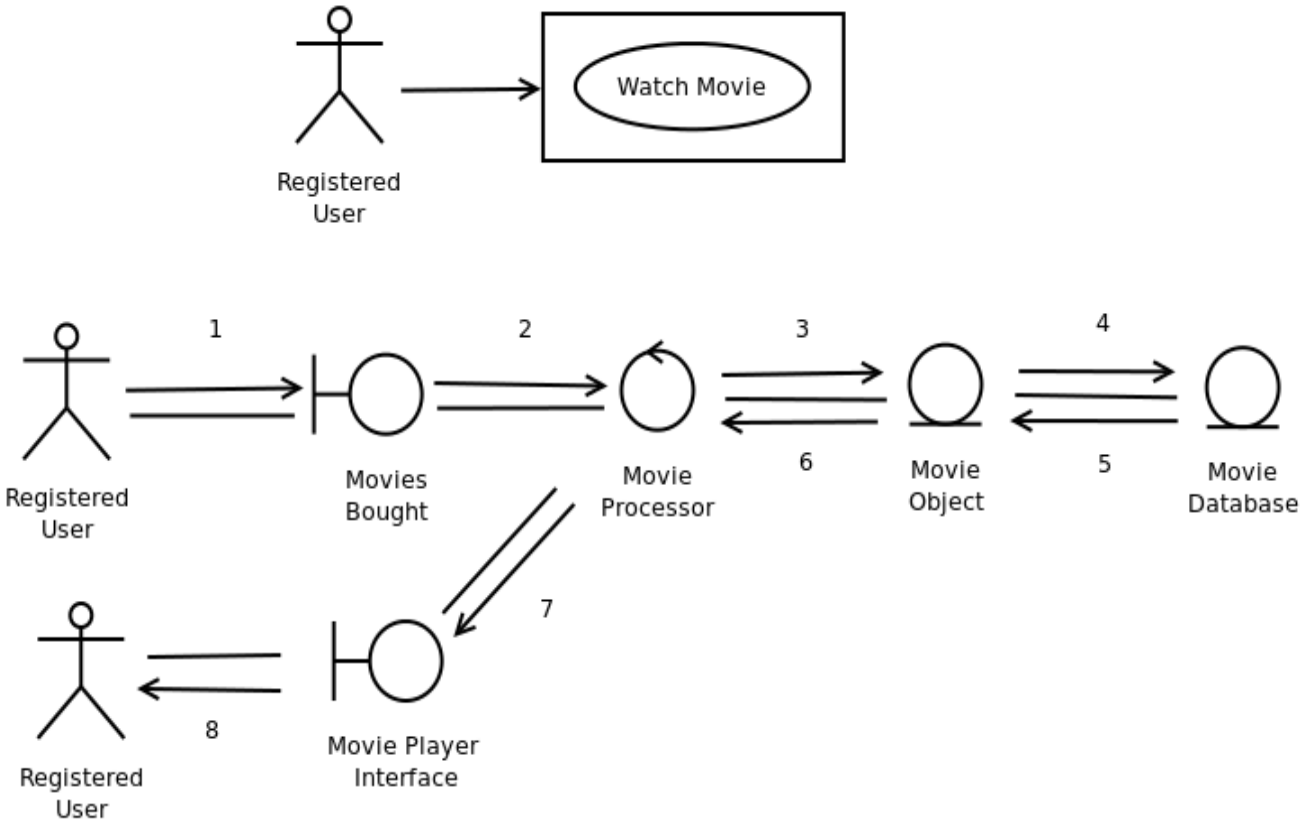

1. Guest User fills in account information on the login page
2. User info passed to login manager
3. Pass login info to user object
4. Login object queries user database with login info
5. User database passes back query results to user object
6. Login manager receives results
7. Login manager shows main customer page
8. System recognizes end user as Customer
9. Login manager shows main admin page
10. System recognizes end user as Admin

Exception 1
5. DB error sent to Login Object
6. Failure sent to Login Manager
11. Login manager presents Failure message on GUI
12. Guest receives error message

Exception 2
7. First time login user present with choose interest page

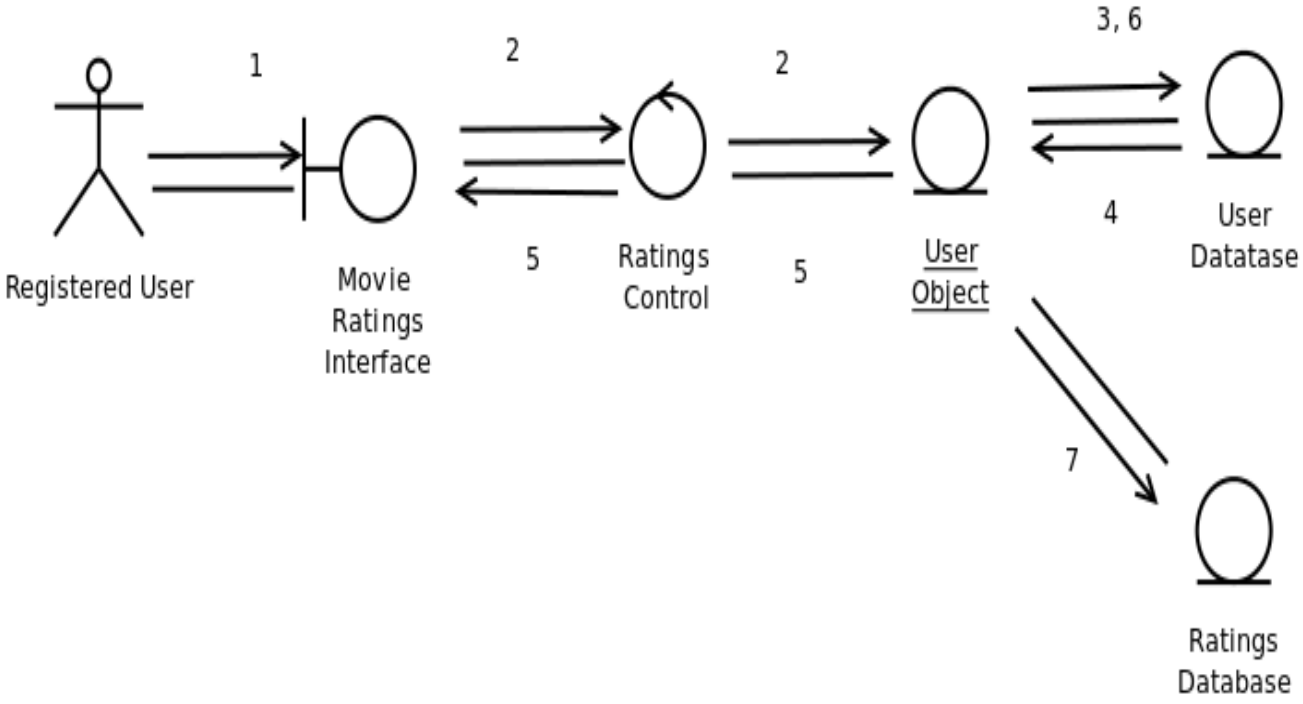
**Figure B2: Login**

## 3.1.3 Regular User Collaboration Diagrams




1. Registered User visits 'movies bought' interface
2. RU clicks on a movie to watch
3. Movie processor creates instance of movie object
4. Movie object retrieves data on specific movie
5. Movie data is sent back to movie object
6. Movie data is sent back to movie processor
7. Movie Processor redirects data and user's location to movie player GUI
8. Movie Player Interface waits for RU to click play

## C1: Watch Movie

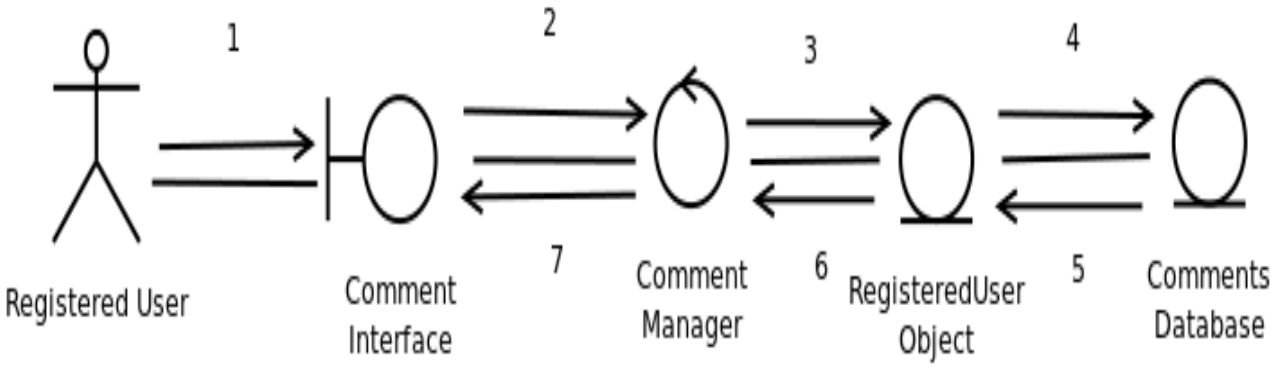



Figure

1. Registered User clicks on movie rating interface
2. Rating Interface submits UserID, MovieID, and Rating to Rating Control
3. Rating Control checks User DB to check User's ratings permissions
4. User DB returns RU's permissions
5. Ratings Control sends success or failure message back to Ratings GUI
6 Ratings Control updates Registered User Database to record Rating Behavior
7. Ratings Control updates Movie Database with new rating

Exceptions:
1. RU presses submit button without selecting a rating
2. RU does not have permissions to rate movie

**Figure C2: Rate**

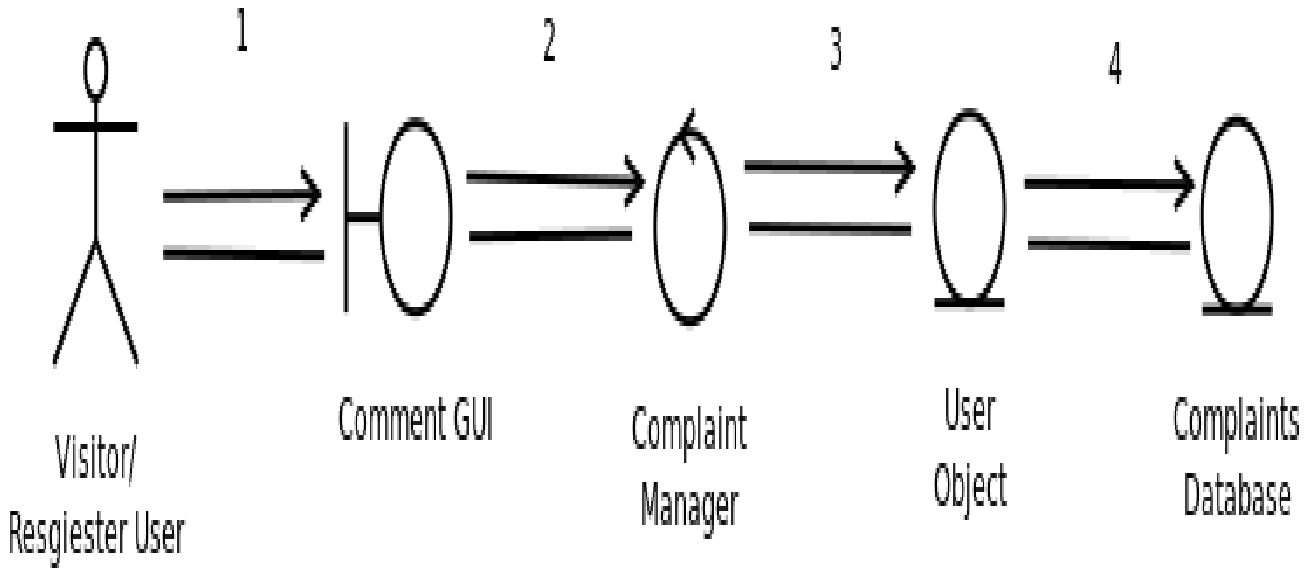



1. RU visits the comment interface of a movie page
2. RU submits comment to be processed by the comment manager
3. The Comment Manager accesses RegisterUser object to processes the comment with a timestamp
4. The data is inserted to Comments Database
5. The comment information is sent back to the RegisteredUser object
6. The comment information is passed back to the comment manager
7. The Comment Manager updates the Comment Interface with new comment(s)

Exception 1:
2. Blank comment is submitted
7. The comment manger displays an error message to the GUI

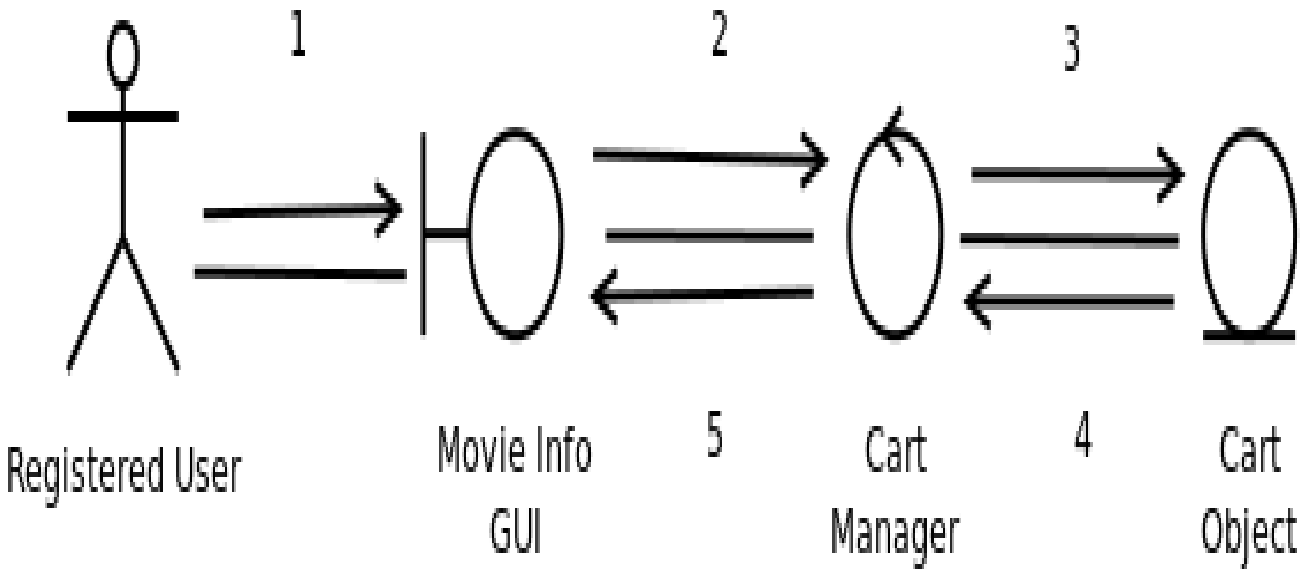
Exception 2:
2. A comment that exceeds the character limit is submitted
7. The comment manager displays an error message to the GUI

**Figure C3: Comment**



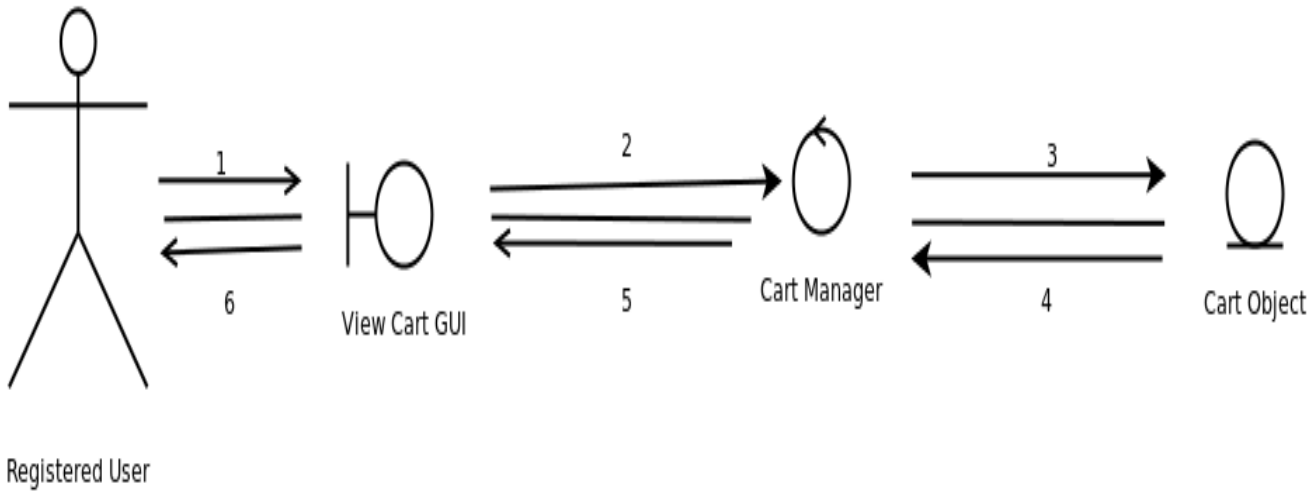

1. Visitor or user clicks 'send complain' on a comment when viewing comments on the movie page
2. The complaint data (userID and comment) is sent to be processed in the Complaint Manager
3. The Complaint Manager passes complaint information to the User Object
4. The Complaint is inserted into the Complaints Database

**Figure C4: Complain**



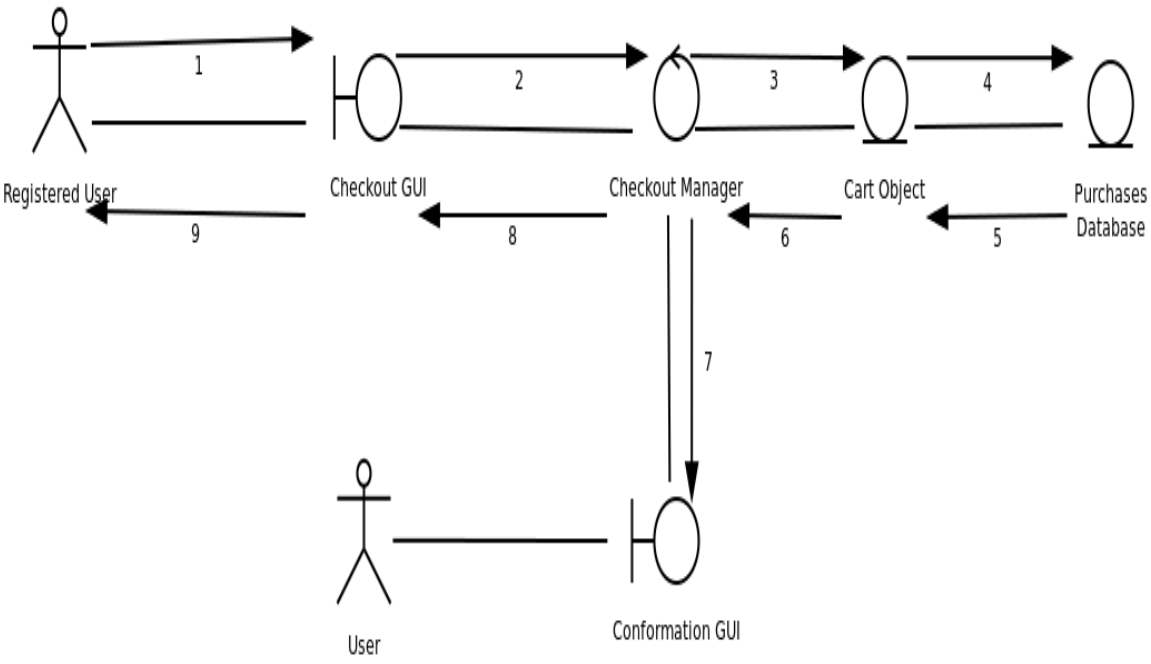

1. RU visits movie info page
2. RU clicks 'add to cart'
3. Cart manager adds the movie data to the cart object
4. Cart object sends back updated contents of cart
5. Updated cart information is sent back to cart GUI

**Figure C5: Add to Cart**




1. Registered User clicks on View Cart GUI.
2. GUI proceses the information to the cart manager.
3. Cart manager then passes it to cart object.
4.. Cart object passes the information to cart manager.
5. Cart Manager recives the items and displays it to the View Cart GUI.
6. The items available in the cart is presented in the GUI.

**Figure C6: View Cart**

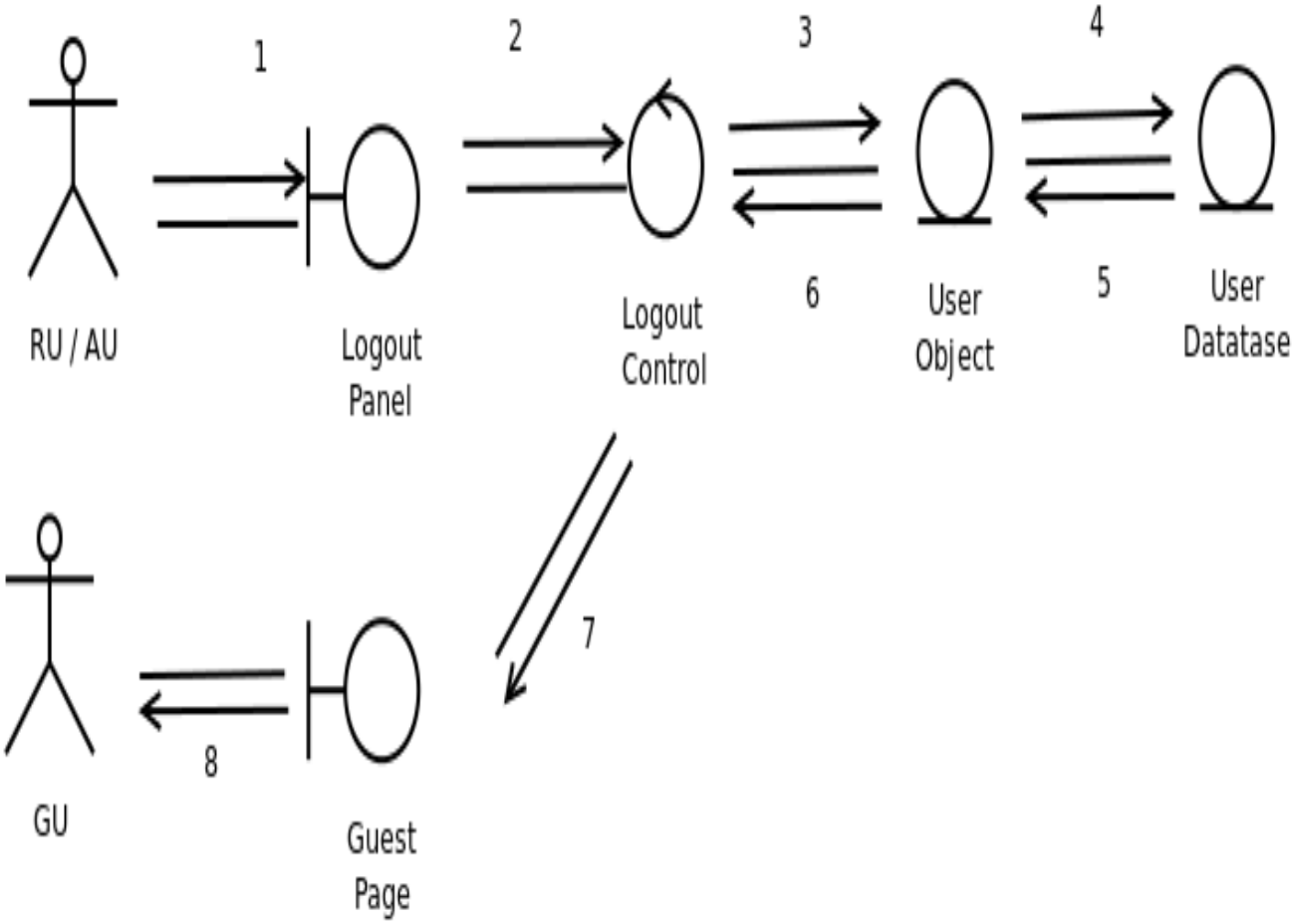



**Checkout Collaboration Diagram**

1. Registered User visits Checkout page
2. RU and Item info passed to Checkout manager
3. Pass RU and Item info to Cart Object
4. Cart object adds purchase data to purchases database
5. Item information is added and sent to cart object
6. Purchase status and information is sent to to checkout manager
7. RU goes Confirmation GUI for purchase

Exception
5. Movie is already bought
6. Don't checkout item
8. Displays error message "Already purchased movie"
9. RU presented with error message

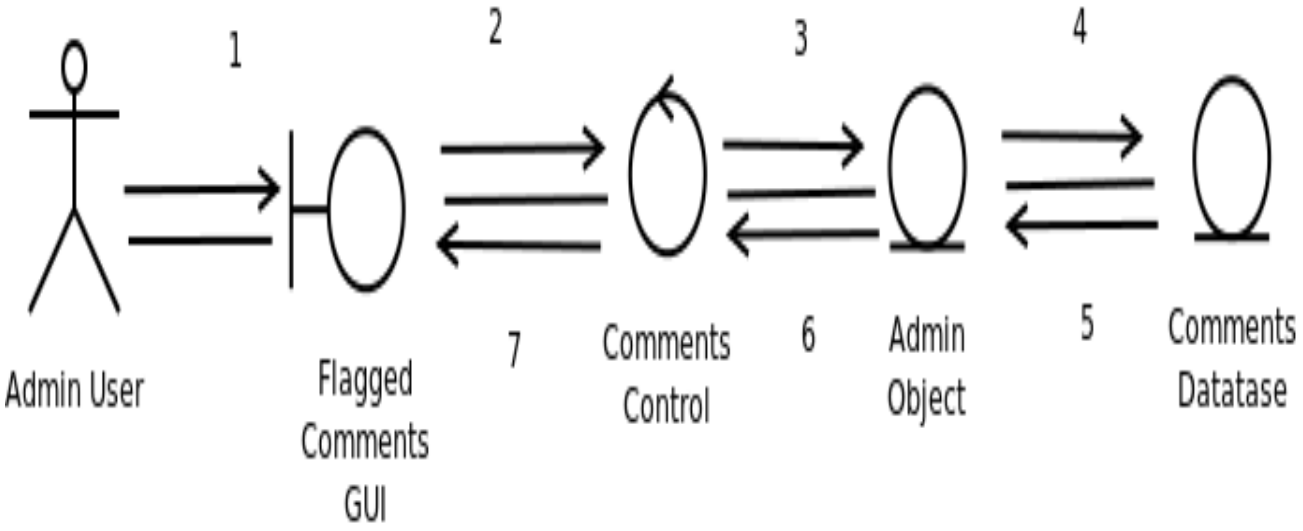
# Figure C7: Checkout




1. Registered User/Admin User clicks on the Logout button
2. Logout Control processes request, verifies user's desire to logout
3. Controller passes logout to user database, ends user's session, completes any pending transactions
4. Database returns results to Logout Control
5. Logout Control produces Guest page stating "You have now been logged out"
6 End User is now considered to be a Guest

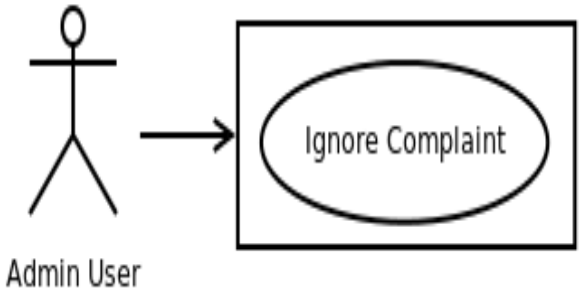
**Figure C8: Logout**

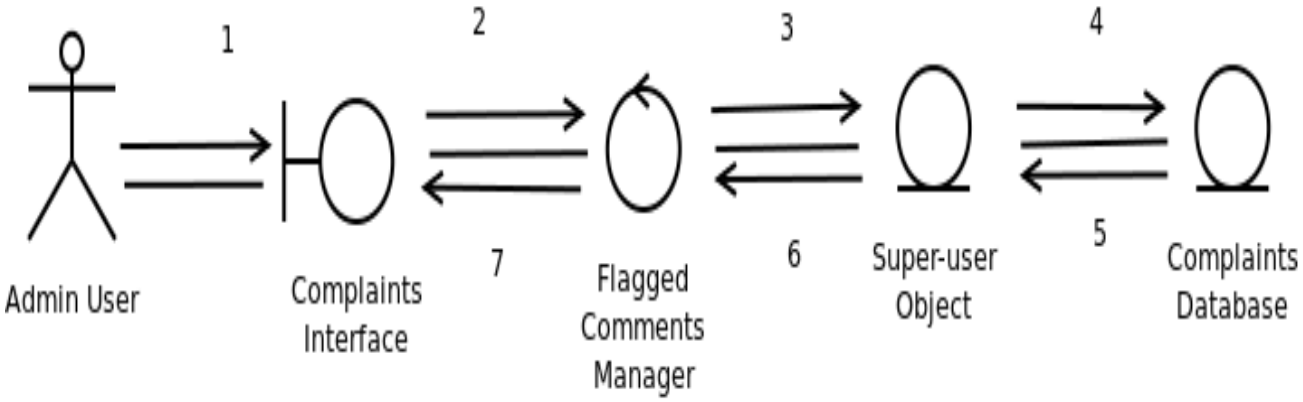
## 3.1.4 Admin User Collaboration Diagrams




1. Admin User selects comments for deletion from Flagged Comments Panel
2. GUI sends deletion request to Comments Control
3. Comments to be deleted are sent to Database
4. Comments are sent to comments database
5. Database returns remaining Flagged Comments from Database
6. The remaining flagged comments are sent to comments control
7. The remaining Flagged Comments are displayed on the GUI

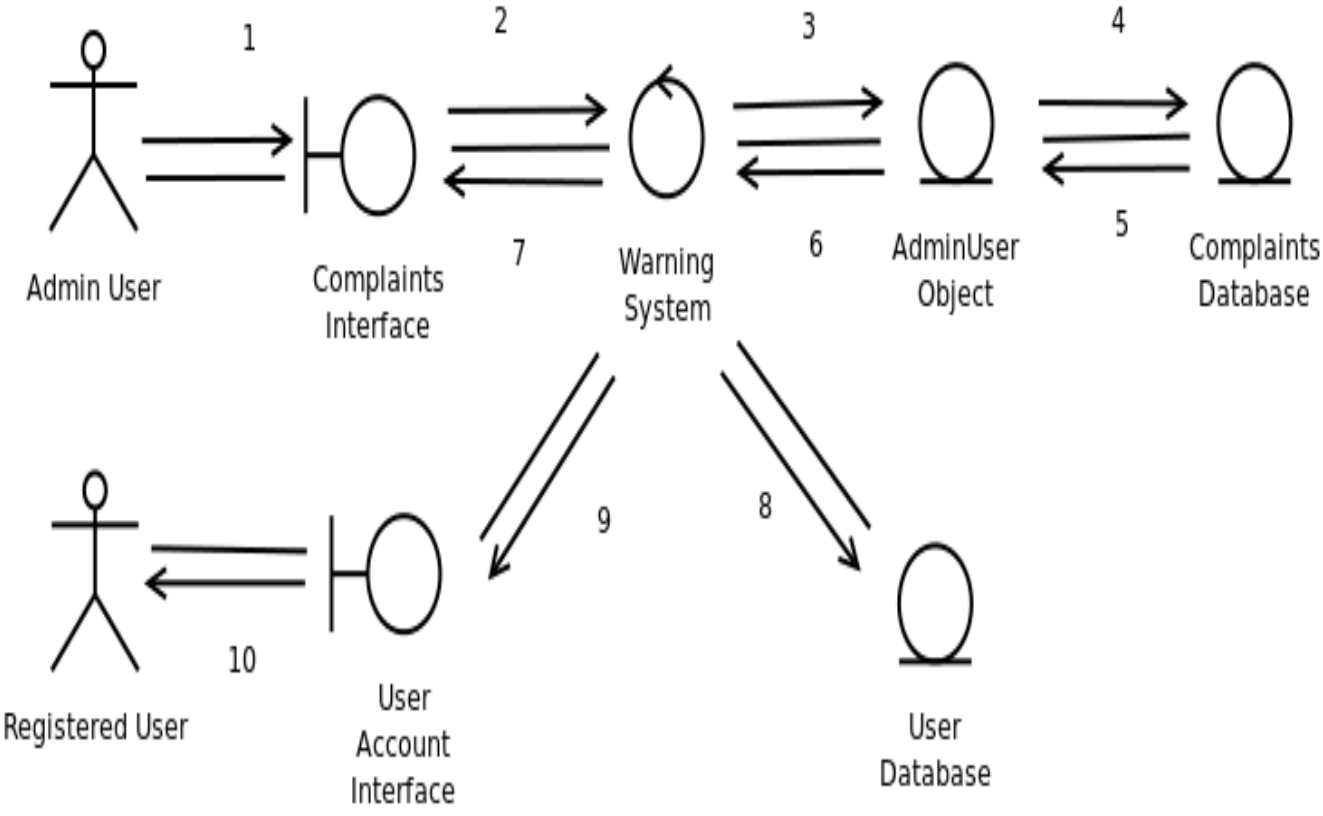
## D1: Erase Comment



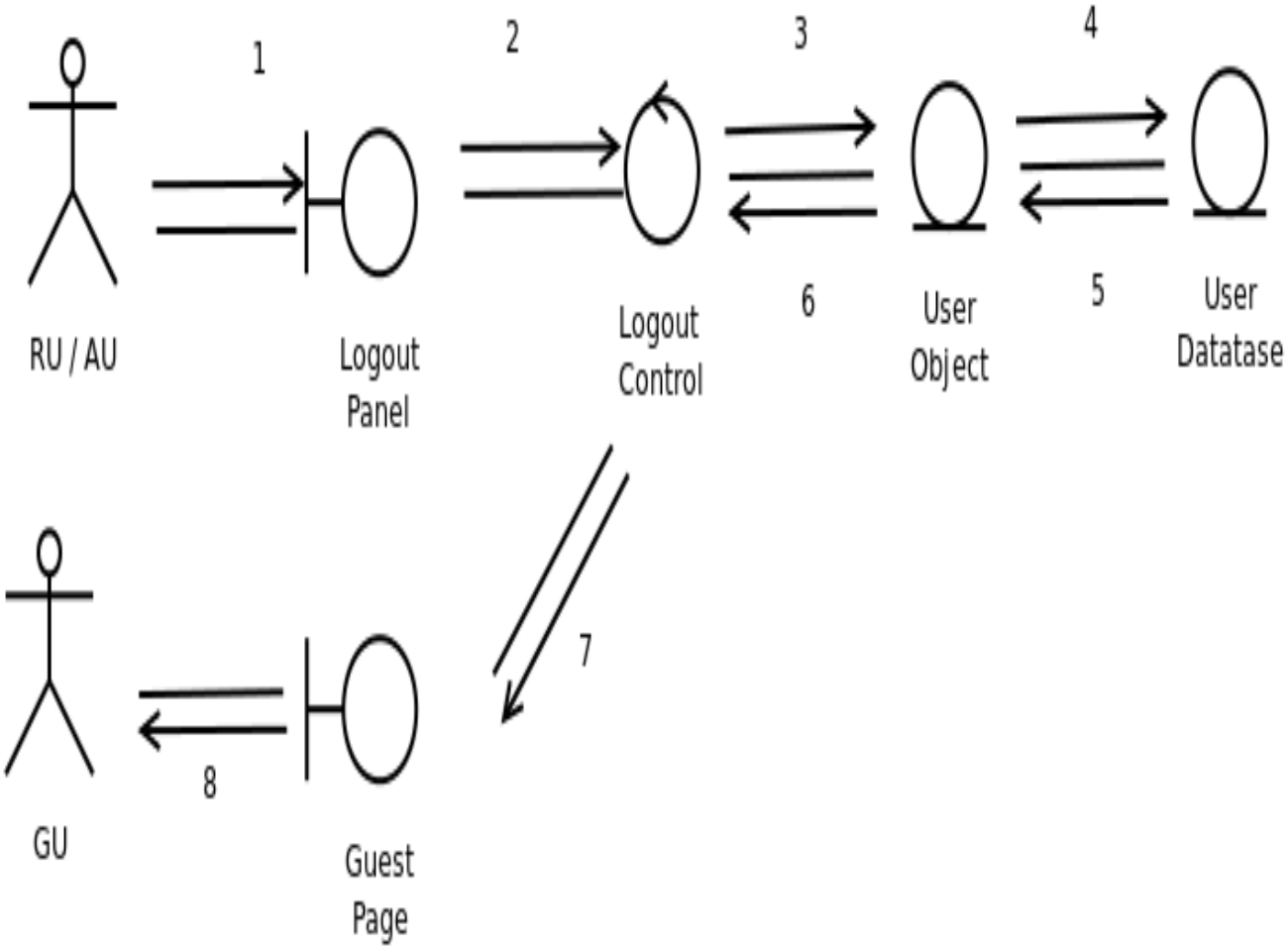

1. Super-user views the Complaints Interface to see recent complaints
2. Super-user clicks 'ignore complaint'
3. The flagged comments manager sends complaint information to super-user object
4. The complaint data is sent to the Complaints Database to remove the complaint
5. The complaints database returns a list of recent complaints
6. The complaints data is sent back to Warning System
7. The Flagged comments manger refreshes list of complaints

**Figure D2: Ignore Complaint**




1. Admin-user views complaints interface to see recent complaints
2. Admin-user clicks 'send warning' to user
3. Warning system accesses super-user object's 'warn user' method
4. The AU object sends an update to the complaints database
5. The complaint data (username, date, comment) is sent to the AU object
6. The complaint information is sent back to warning system
7. The complaint is removed from 'recent complaints'
8. The warning system sends query to increase the user's 'warnings' counter by one
9. A warning message (with date and comment) is sent to username
10. The Registered User receives warning message when he/she views their account page

**Figure D3: Warn User**




1. Registered User/Admin User clicks on the Logout button
2. Logout Control processes request, verifies user's desire to logout
3. Controller passes logout to user database, ends user's session, completes any pending transactions
4. Database returns results to Logout Control
5. Logout Control produces Guest page stating "You have now been logged out"
6 End User is now considered to be a Guest

**Figure D4: Logout**

**Guest User Class**

(extends the User Class)

**Attributes:**

- private $userID;
- private $username;
- private $accountType;
- private $userEmail;

**Functions:**

- public function login($userID, $userPassword)
  // This allows a guest user to log in to the system and become a registered user or admin user

- public function register()
  // This allows a guest user to become a registered user

- public function complainComment($commentID)
  // This allows a guest user to send a complaint about a comment identified by commentID

**RegisteredUser Class**

(extends the User Class)

**Attributes:**

- private $userID;
- private $username;
- private $userEmail;

**Functions:**

- public function getID()
  // This returns the id of the registered user

- public function getUsername()
  // This returns the username of the registered user

- public function getEmail()
  // This returns the email address of the registered user

- public function complainComment($commentID)
  // This allows a registered user to send a complaint about a comment identified by commentID

- public function login($userID, $userPassword)
  // This allows a registered user to send a complaint about a comment identified by commentID

- public function rateMovie($userID, $movieID, $rating)
  // This allows a registered user to give a rating to a movie.

- public function submitComment($userID, $movieID, $commentText)
  // This allows a registered user to post a comment to the movie page identified by movieID

**Movie Class**

**Attributes:**

- private $movieID;
- private $movieName;
- private $movieYear;
- private $movieSummary;
- private $movieGenre;
- private $movieDirector;
- private $movieStars;
- private $movieRuntime;
- private $movieImageLocation;
- private $movieLocation;
- private $movieRating;
- private $moviePrice;

**Functions:**

- function __construct($movieID)
  // Constructor for the Movie class

- public function playMovie($userID, $movieID)
  // Verifies that user has purchased the movie, plays movie in movieLocation

- public function browse()
  // Displays all information about movie

- public function getMovieId()
  // Returns movie id

- public function getMovieName()
  // Returns movie name

- public function getMovieYear()
  // Returns movie year

- public function getMovieSummary()
  // Returns movie summary

- public function getMovieGenre()
  // Returns movie genre

- public function getMovieDirector()
  // Returns movie director

- public function getMovieStars()
  // Returns movie stars

- public function getMovieRuntime()
  // Returns movie runtime

- public function getMovieImageLocation()
  // Returns file location of movie poster

- public function getMovieLocation()
  // Returns location of movie file

- public function watchMovie()
  // plays the movie

- public function getPrice()
  // Returns movie price

**Movie Class**

**Attributes:**

- private $movieID;
- private $movieName;
- private $movieYear;
- private $movieSummary;
- private $movieGenre;
- private $movieDirector;
- private $movieStars;
- private $movieRuntime;
- private $movieImageLocation;
- private $movieLocation;
- private $movieRating;
- private $moviePrice;

**Functions:**

- function __construct($movieID)
  // Constructor for the Movie class

- public function playMovie($userID, $movieID)
  // Verifies that user has purchased the movie, plays movie in movieLocation

- public function browse()
  // Displays all information about movie

- public function getMovieId()
  // Returns movie id

- public function getMovieName()
  // Returns movie name

- public function getMovieYear()
  // Returns movie year

- public function getMovieSummary()
  // Returns movie summary

- public function getMovieGenre()
  // Returns movie genre

- public function getMovieDirector()
  // Returns movie director

- public function getMovieStars()
  // Returns movie stars

- public function getMovieRuntime()
  // Returns movie runtime

- public function getMovieImageLocation()
  // Returns file location of movie poster

- public function getMovieLocation()
  // Returns location of movie file

- public function watchMovie()
  // plays the movie

- public function getPrice()
  // Returns movie price

**Cart Class**

**Attributes:**

- private $totalPrice;
- private $checkoutCart = array();

**Functions:**

- public function getAmountItems()
  // Returns the length of $checkoutCart

- public int getCurrentTotal()
  // Returns the current total price of items in the cart

- public function removeFromCart($movie)
  // Removes a movie from the checkout cart

- public int checkout($userID, $allMovieIDs)
  // Executes purchase of all movies by the user.

**Comment Class**

**Attributes:**
private $commentID;
private $commentText;
private $userName;
private $timestamp;

**Functions:**

- function __construct($commentID, $commentText, $userName, $timestamp)
  // Constructor for the Comment class

- public int getCommentID()
- 
  // Returns the ID of the comment

- public function getCommentText()
  // Gets the text of the comment

- public function getUserName()
  // Gets the name of the commenter

- public function getTimestamp()
  // Gets the date of the commenter

**Complaint Class**

**Attributes:**

- private $complaintID;
- private $commentID;
- private $reason;

**Functions:**

- function __construct($complaintID, $commentID, $reason)
  // Constructor for the Complaint class

- public function getComplaintID()
  // Returns the complaint ID

- public int getCommentID()
  // Returns the ID of the comment being flagged

- public function getReason()
  // Gets the reason for the complaint

**Cart Class**

**Attributes:**

- private $totalPrice;
- private $checkoutCart = array();

**Functions:**

- public function getAmountItems()
  // Returns the length of $checkoutCart

- public int getCurrentTotal()
  // Returns the current total price of items in the cart

- public function removeFromCart($movie)
  // Removes a movie from the checkout cart

- public int getCurrentTotal($userID, $allMovieIDs)
  // Executes purchase of all movies by the user.

**Rating Class**

**Attributes:**

- private $movieID;
- private $average ;
- private $oneStars;
- private $twoStars;
- private $threeStars;
- private $fourStars;
- private $fiveStars;

**Functions:**

- function __construct($movieID)
  // Constructor for the Rating class

- public function getAverage ()
  // Returns the average rating

- public int getOnes()
  // Returns the number of one star ratings

- public int getTwos()
  // Returns the number of two star ratings

- public int getThrees()
  // Returns the number of three star ratings

- public int getFours()
  // Returns the number of four star ratings

- public int getFives()
  // Returns the number of five star ratings

FirstRowMovies

Browse Login Register

## Most Popular Movies


The Dark Knight


Toy Story 3


The Avengers


**Figure : Complaints.php**

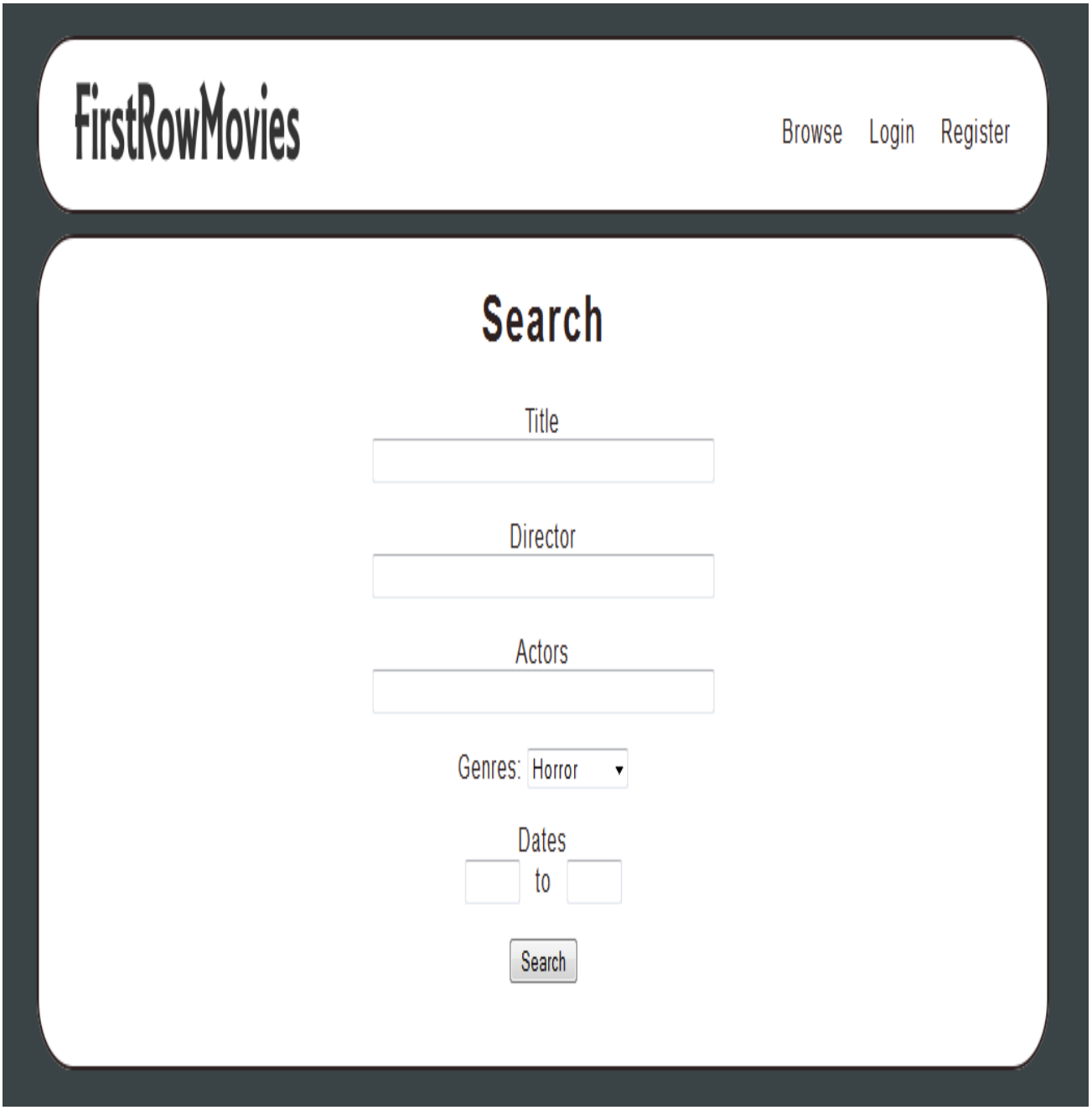

FirstRowMovies
Browse
Login
Register
Search
Title
Director
Actors
Genres:
Horror
Dates
to
Search

**Figure :**

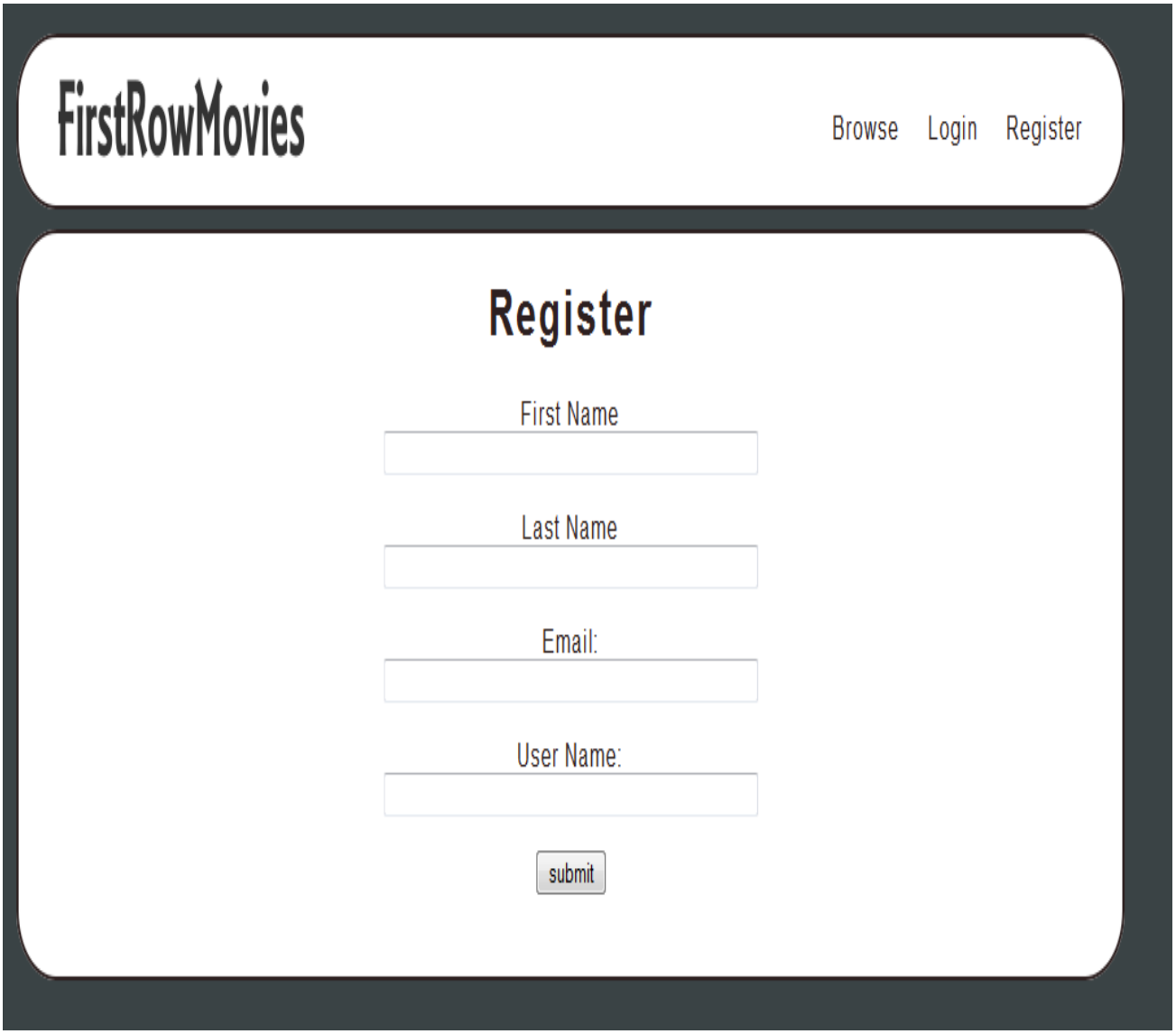



**Figure : register.php**


**Figure : firstLogin.php**

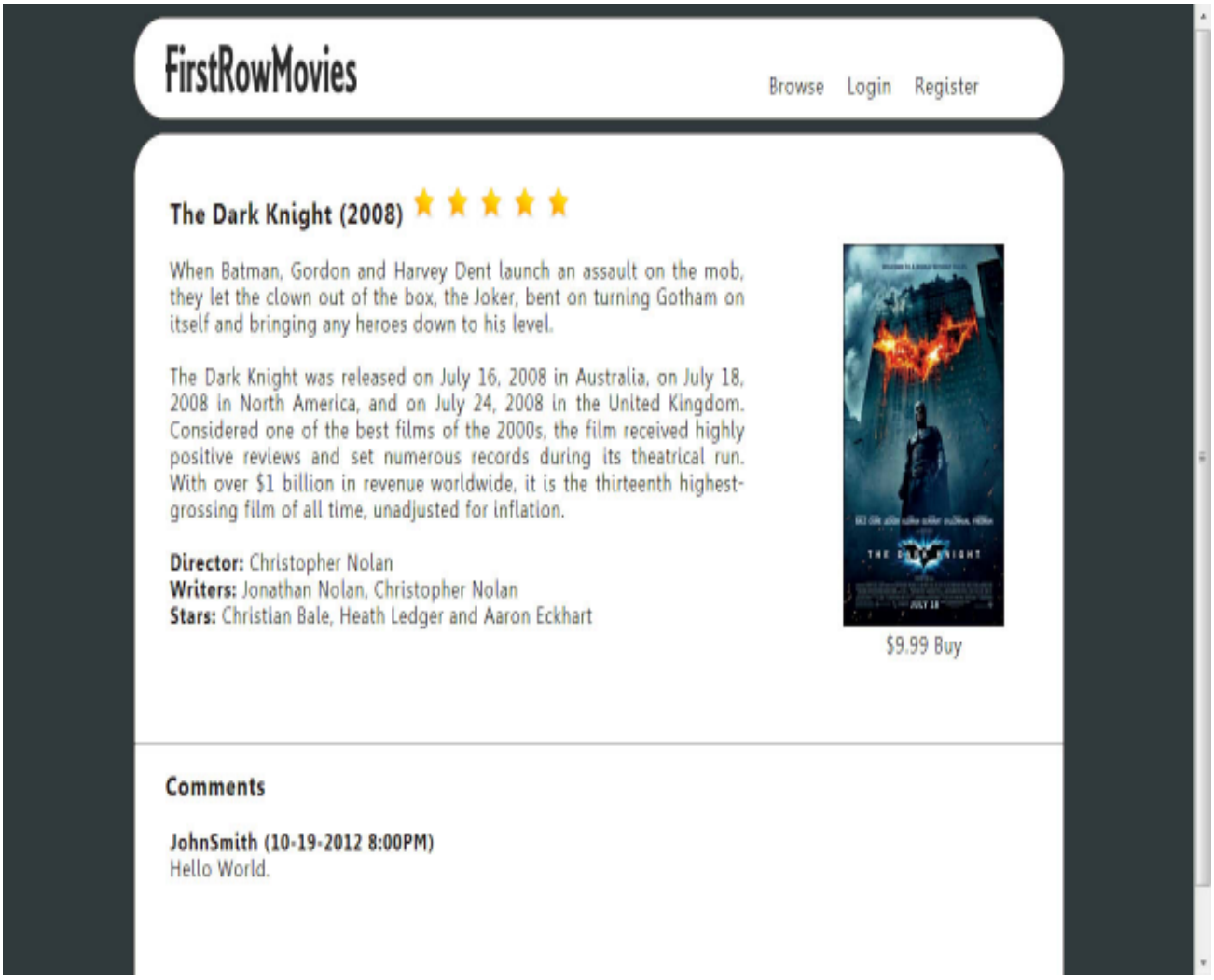



**Figure: ViewMovieInfo.php**

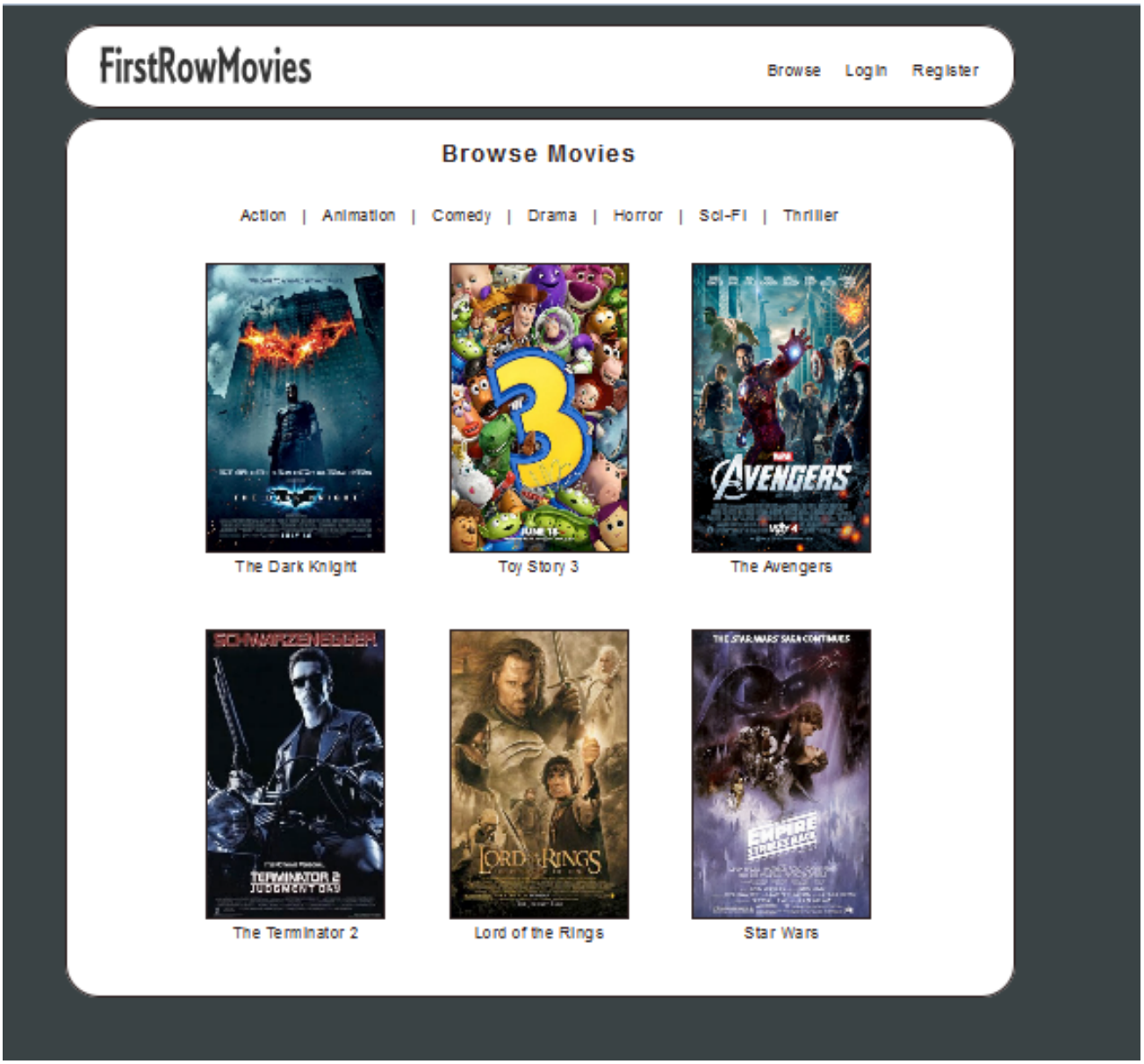



**Figure : browse.php**

* Add functionality to current Classes
(
    U,
    GU,
    RU,
    AU,
    Movie,
    Cart
)

* Create new Object Classes
(
    Player,
    Comment,
    Session?
    All Database Returns Need Object Wrapper
)

* Create new Logic Classes
(
    SearchManager,
    BrowseManager,
    MovieViewManager,
    LoginManager,
    RegisterManager,
    MovieRatingsInterface,
    MovieProcessor,
    CommentManager,
    CartManager,
    CheckoutManager,
    PasswordControl,
    LogoutControl,
    CommentControl,
    FlaggedCommentsManager,
    WarningSystem,
    DeleteManager
)

**Create new GUI Classes**
**(**
- **SearchGUI,**
- **BrowseGUI,**
- **ViewMovieGUI,**
- **LoginGUI,**
- **MainCustomerPage,**
- **MainAdminPage,**
- **RegisterGUI,**
- **RegistrationSuccessGUI,**
- **MoviesBought,**
- **MoviePlayerInterface,**
- **CommentGUI,**
- **ViewCartGUI,**
- **CartGUI,**
- **CheckoutGUI,**
- **ConfirmationGUI,**
- **ResetPasswordGUI,**
- **GuestPage,**
- **FlaggedCommentsGUI,**
- **ComplaintInterface,**
- **ComplaintsInterface,**
- **DeleteUserGUI**

**)**

**Create Database Tables**

**(**

**MOVIES,**
**R_USERS,**
**RATINGS,**
**PURCHASES,**
**COMMENTS,**
**COMPLAINTS**

**)**

**Create Screen Shots**
**(**
**SearchGUI,**
**BrowseGUI,**
**ViewMovieGUI,**
**LoginGUI,**
**MainCustomerPage,**
**MainAdminPage,**
**RegisterGUI,**
**RegistrationSuccessGUI,**
**MoviesBought,**
**MoviePlayerInterface,**
**CommentGUI,**
**ViewCartGUI,**
**CartGUI,**
**CheckoutGUI,**
**ConfirmationGUI,**
**ResetPasswordGUI,**
**GuestPage,**
**FlaggedCommentsGUI,**
**ComplaintInterface,**
**ComplaintsInterface,**
**DeleteUserGUI**
**)**