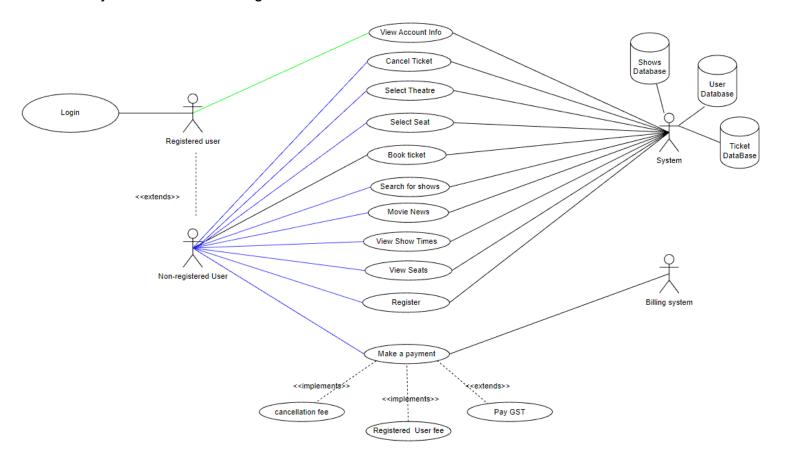
# **ENSF480 Final Project**

Design Document Andrew Howe (30113096), James Platt (30130627), Jenna Vlaar (30113774), Sadman Shahriar (30121460)

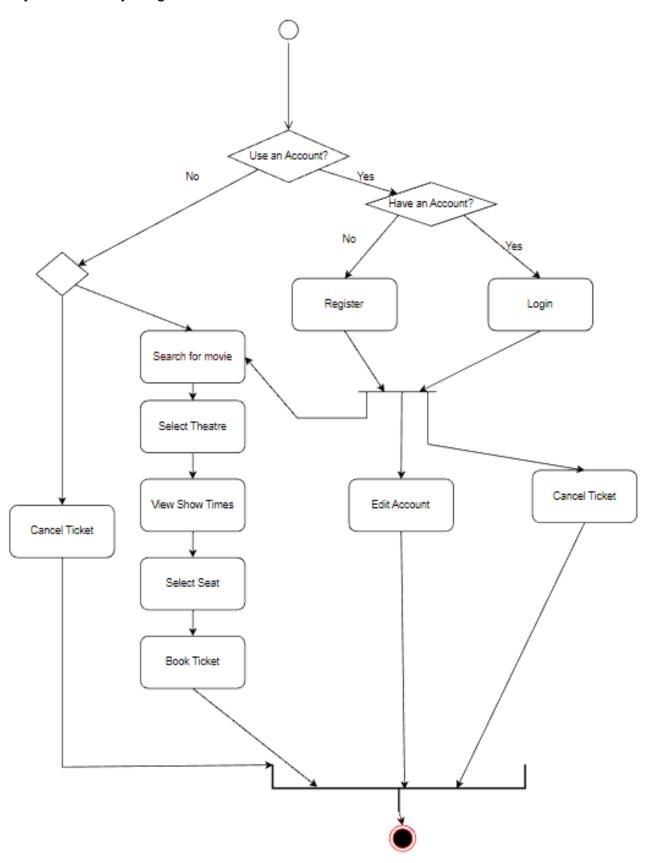
Date: Dec. 4, 2022

Section: L02

# Systems Use Case Diagram:



# Systems Activity Diagram



### Use Case Scenarios:

### "View Account Info":

System asks user if they would like to use an account, register or continue as guest User inputs login information

System validates login information and recognizes user as <u>Registered User</u> <u>Registered User</u> selects the account button and <u>views account info</u>

### "Search for Shows":

System asks user if they would like to use an account, register or continue as guest User inputs login information

System validates login information and recognizes user as Registered User

Registered User selects theatre and then searches for shows

System searches <u>Database</u> for relevant movies and displays them to user

System asks user if they would like to use an account, register or continue as guest User continues as guest and inputs their email

System validates email and recognizes user as <u>Unregistered User</u>

<u>Unregistered User</u> selects theatre and then searches for shows

System searches <u>Database</u> for relevant movies and displays them to user

### "Cancel Ticket":

System asks user if they would like to use an account, register or continue as guest User inputs login information

System validates login information and recognizes user as Registered User

Registered User selects the account button and views account info

System displays current tickets ordered by the Registered User

Registered User indicates they would like to cancel ticket

System validates changes and commits them to the <u>Database</u>

System asks user if they would like to use an account, register or continue as guest User continues as guest and inputs their email

System validates email address and recognizes user as a  $\underline{\text{Non-Registered User}}$   $\underline{\text{Non-Registered User}}$  and indicates they would like to  $\underline{\textit{cancel ticket}}$ 

Non-Registered User is charged 15% cancellation fee and <u>makes a payment</u>

System validates payment and commits changes to the <u>Database</u>

### "Select Seat":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

In the case that the user chose to login, System validates user login info and recognizes the user as a <u>Registered User</u>.

Registered User/Non-Registered user uses  $search\ for\ shows$  , then  $select\ theatre\ \underline{.}$ 

After *viewing showtimes*, User is displayed a list of valid seats to choose from.

User will then <u>select seat</u> and select one from the list. Seat is saved locally, but not yet committed to the database.

#### "Select Theatre":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

System validates login information and recognizes the user as a <u>Registered User</u> if the user has chosen to log in.

After logging in or continuing as a <u>Non Registered User</u>, the user is asked to <u>search for shows</u>. The System presents search results.

Then the user selects a movie from the results, and then clicks select theatre, after which the

System shows <u>Theatres</u> that are showing the <u>movie</u>, and the user is able to choose from this list a location in which they would like to watch the movie.

#### "Book ticket":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

In the case that the user chose to login, System validates user login info and recognizes the user as a <u>Registered User</u>.

Registered User/Non-Registered User <u>selects theatre</u> and then <u>search for shows</u>

After  $\underline{\underline{viewing\ showtimes}}$ , user uses  $\underline{\underline{select\ seat}}$ . After all options have been chosen, User is asked to confirm their choices, and finalise with  $book\ ticket$ .

System commits changes to the Database.

### "Movie News":

Anytime new <u>movie news</u> comes to the theatre, the System goes through a list of <u>Registered</u> <u>User</u>, and then Emails all <u>Registered Users</u> with the <u>movie news</u> before the public release date.

### "View Showtimes":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

System validates login information and recognizes the user as a <u>Registered User</u> if the user has chosen to log in.

After logging in or continuing as a <u>Non-Registered User</u>, the user is asked to <u>search for shows</u>. The System presents search results.

Then the user selects theatre, then searches movie

User selects Buy Tickets and can <u>view showtimes</u>, after which the system will present the User with a list of showings for the movie at that specific theatre.

### "View Seats":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

In the case that the user chose to login, System validates user login info and recognizes the user as a <u>Registered User</u>.

Registered User/Non-Registered user selects theatre then searches for shows

After viewing showtimes, User views seats

## "Register":

System asks user if they would like to use an account, register or continue as guest User selects register and continues to RegisterForm User completes register form and clicks register

System updates Database with new userinfo

### "Make a Payment":

System asks user if they would like to use an account

User inputs login information, or continues as a Non-Registered User

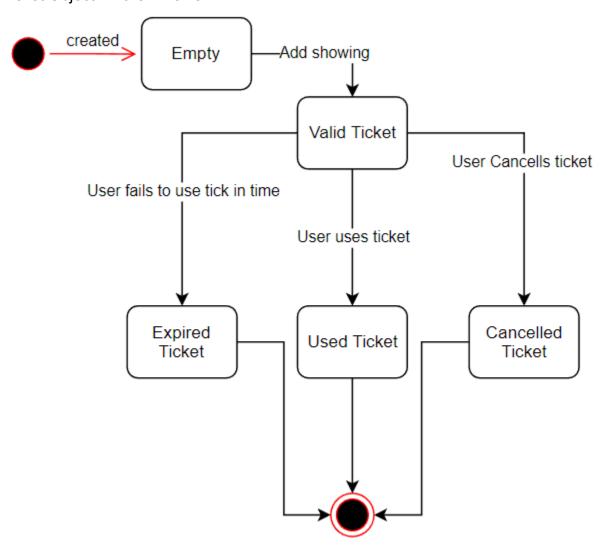
In the case that the user chose to login, System validates user login info and recognizes the user as a <u>Registered User</u>.

Registered User/Non-Registered User selects theatre and then searches for shows

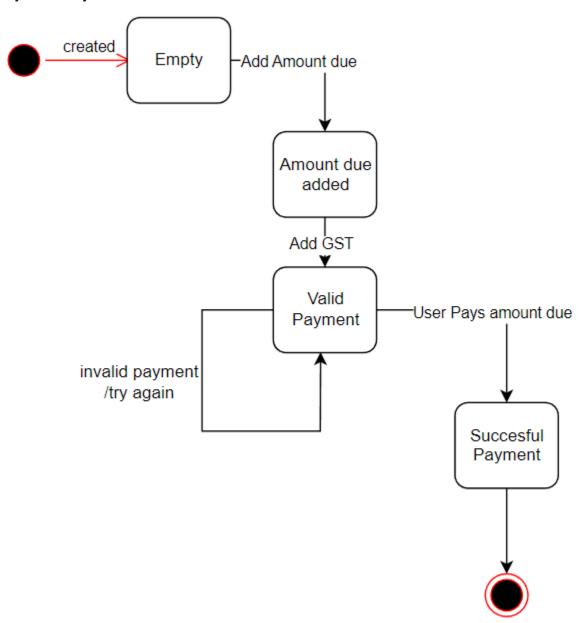
After viewing showtimes, user selects seat. After all options have been chosen,

User is given Payment form and clicks place order and  $\underline{makes\ a\ payment}$ 

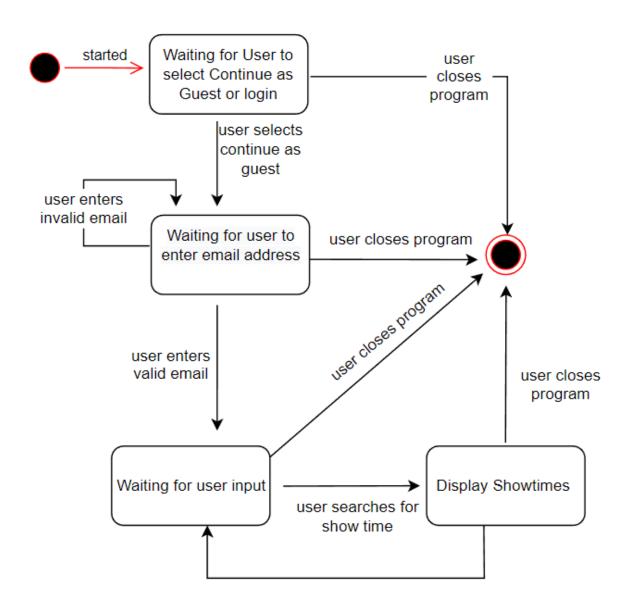
State Transition Diagrams: Ticket Object: Andrew Howe



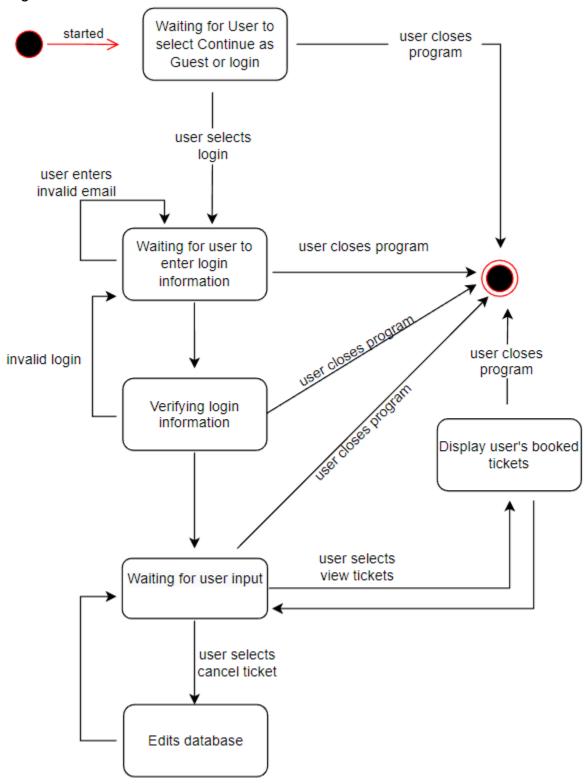
# Payment Object: James Platt



Two Use Cases: "Non-Registered User views Showtimes" Jenna Vlaar

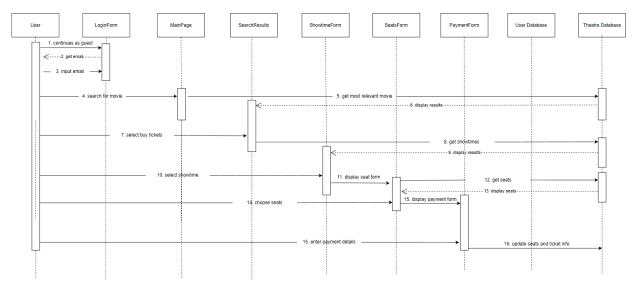


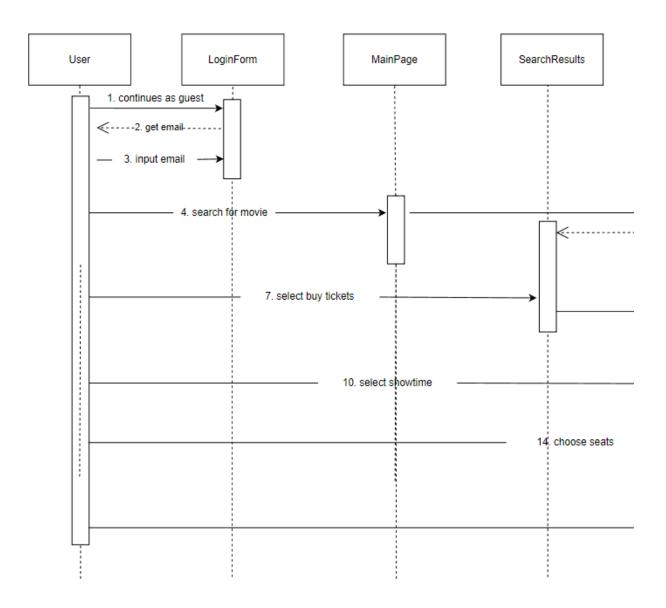
# "Registered User Cancels Ticket" Sadman Shahriar

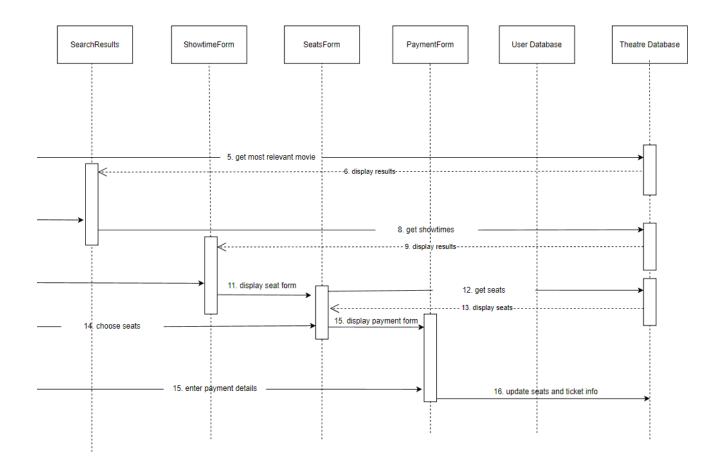


# System Interaction Diagrams:

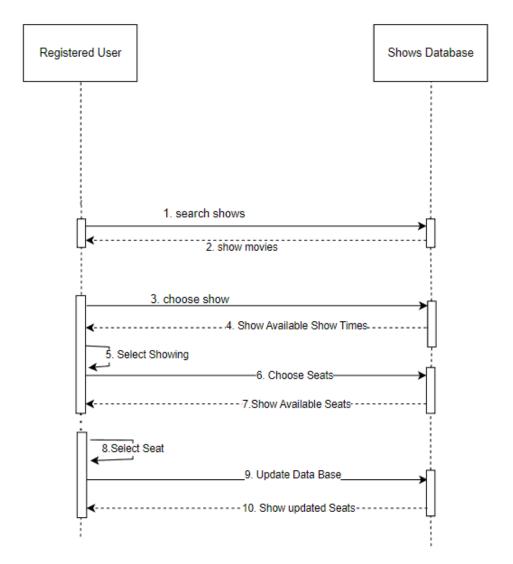
# Jenna Vlaar:



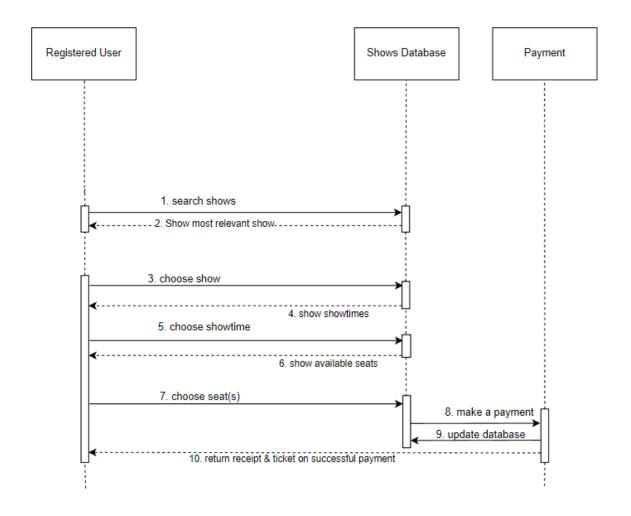




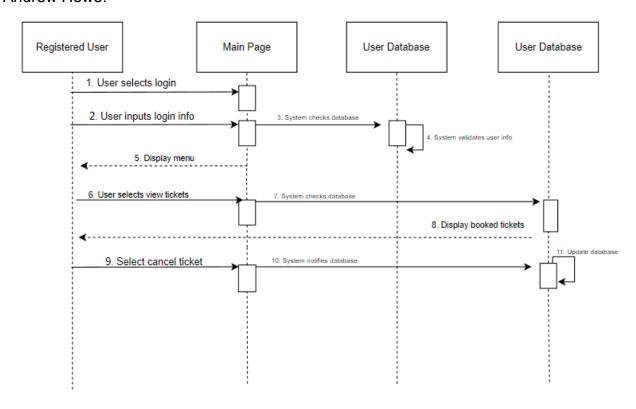
## James Platt:



## Sadman Shahriar

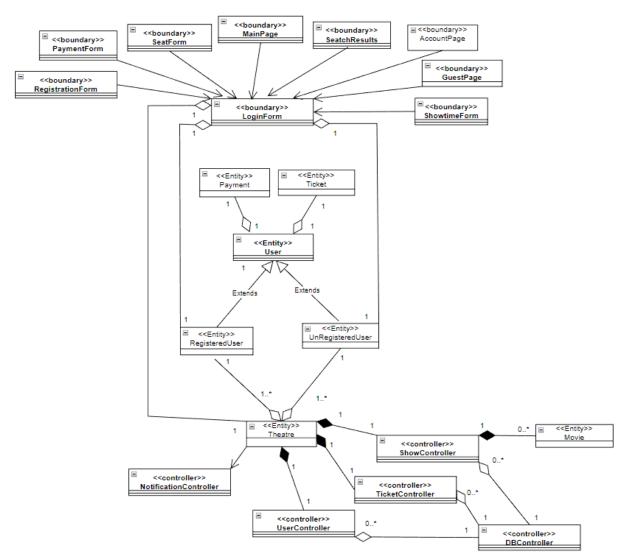


## Andrew Howe:



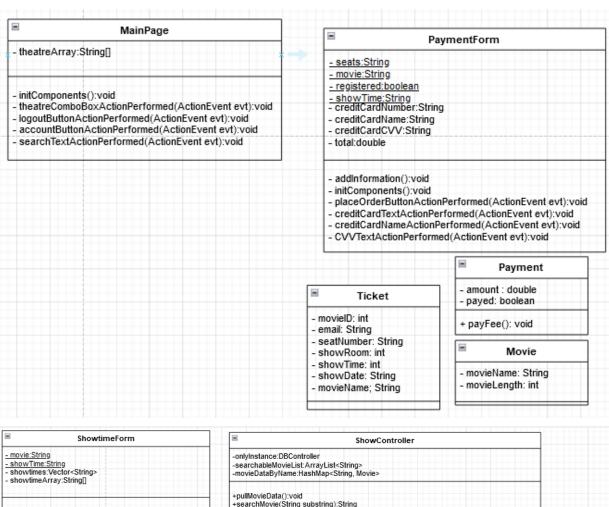
# Design Level Class Specification:

# Class Diagram without Attributes:



## Class Diagram with Attributes:

#### GuestPage AccountPage - ticketArray:String[] - ticketArray:String[] - theatreArray:String[] - tickets:ArrayList<Ticket> - tickets:ArrayList<Ticket> - addInformation():void - fillComboBoxes():void - fillComboBoxes():void - initComponents():void - initComponents():void - cancelTicketButtonActionPerformed(ActionEvent evt):void - cancelTicketButtonActionPerformed(ActionEvent evt):void - ticketComboBoxActionPerformed(ActionEvent evt):void - homeButtonActionPerformed(ActionEvent evt):void - theatreComboBoxActionPerformed(ActionEvent evt):void ticketComboBoxActionPerformed(ActionEvent evt):void searchTextActionPerformed(ActionEvent evt):void LoginForm SeatForm + email:String + theatre:Theatre + registeredUser:RegisteredUser - movie:String - showTime:String - registered:boolean - seatlcon:lmagelcon + unregisteredUser:UnRegisteredUser - allSeats:JToggleButton[] - seats:String - initComponents():void - seatNames:String[] - emailTextActionPerformed(ActionEvent evt):void - loginButtonActionPerformed(ActionEvent evt):void - registerButtonActionPerformed(ActionEvent evt):void - addInformation():void - guestButtonActionPerformed(ActionEvent evt):void - fillComboBoxes():void - initComponents():void - cancelTicketButtonActionPerformed(ActionEvent evt):void - homeButtonActionPerformed(ActionEvent evt):void RegisterForm ticketComboBoxActionPerformed(ActionEvent evt):void - initComponents():void - registerButtonActionPerformed(ActionEvent evt):void UnregisteredUser

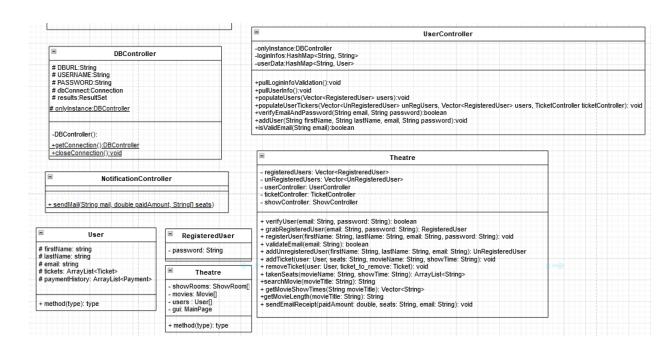


showTime:String - showTimes:Vector <string> - showtimeArray:String[]</string>
- populateInfo():void - populateShowtimes():void - infComponents():void - continueButtonActionPerformed(ActionEvent evt):void
B

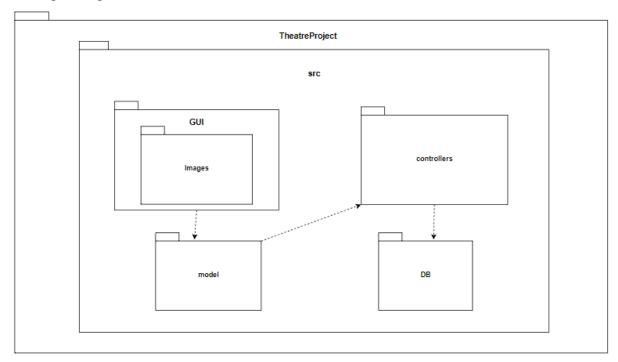
	SearchResults
+ registered - search:Str # movie:Strii	
- displayRes - initCompon - homeButto -buyTickets!	

Showcontroller			
-onlyInstance:DBController			
-searchableMovieList:ArrayList <string></string>			
-movieDataByName:HashMap <string, movie=""></string,>			
+pullMovieData():void +searchMovie(String substring):String +getTakenSeats(String movieName, int showTime):ArrayList <string></string>			
+createTicketAndAddSeats(User user, String seats, String movieName, int showTime):Ticket +removeTickets(int MovieID, String seats):Void +qetShowTimes(String movieTitle):Vector <integer></integer>			
+getMovieLength(String movieTitle):int			

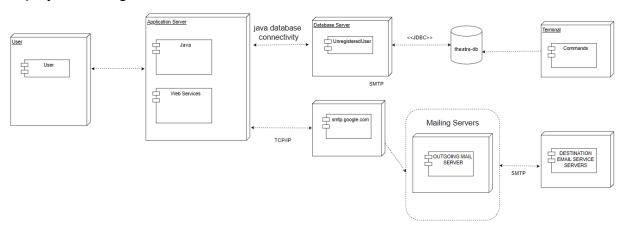
TicketController -onlyInstance:DBController +populateTickets(HashMap<String, ArrayList<Ticket>> map, Vector<UnRegisteredUser> unRegUsers):void +addTicket(Ticket temp, User user):void +removeTicket(String email):void



# Package Diagram:



# Deployment Diagram:



Note: You can view any of the diagrams above better with the following link:

 $\underline{https://drive.google.com/file/d/1fXcQ8G36Nq9THP2ryPTenXLZy8Tkl5as/view?usp=sharing}\\$