

Verification Test Plan

Unit Tests:

getAvailability(movie) → Movie Class

Functionality: Verify that the function will correctly return availability of tickets for a given movie on a selected date with a list of showtimes.

Test Vectors:

Checking availability on a movie with available tickets:

Expected Behavior: Should return a list of showtimes available for a movie.

Checking availability on a movie with **NO** available tickets:

Expected Behavior: Should return a 0, to indicate that there are no tickets available for the movie.

Checking availability on a movie that does not exist:

Expected Behavior: Should return an error message to indicate that the movie does not exist (at least at the theater which the system is built for)

reserveSeats(Showing, List[Seats], Customer) → Theater Class

Functionality: Verify that the function will correctly reserve requested seats (multiple if desired), and will link it to the customer who had purchased it.

Test Vectors:

Checking for ability to reserve selected seats:

Expected Behavior: Should allow booking on open seats, giving the customer the ability to reserve availability for a showtime.

Checking ability to reserve already reserved seats:

Expected Behavior: Should return an error message indicating that the seats are unavailable, and if others are open, should prompt those seats as a suggestion.

Checking for reserving more seats than what exists in the theater:

Expected Behavior: Should return an error message to indicate that the selected number of seats is not available for the theater, and prompt to select fewer seats.

Checking for reserving seats for a movie/showing that does not exist:

Expected Behavior: Should return an error message indicating that the movie does not exist, and prompt the user to select a different movie.

Functional Tests:

Ticket Reservation Behavior:

Functionality: Tests aiming to verify whether the ticket reservation process is properly functioning and can correctly reserves seat(s) for a given showing

Test Vectors:

Checking whether a selectable showing has seats that are available for reservation:

Expected Behavior: Should allow a user to select and book available seats

Checking whether reservations made correctly place order:

Expected Behavior: An order should be created, listing the correct information in seats reserved (location and amount), which showing is booked, and for what movie

Checking for reserving a seat when the theater is fully booked:

Expected Behavior: Should return an error message indicating that there are no available seats for the showing, and prompt the user to select a new showing

Order Total Calculation:

Functionality: Aims to calculate the total price of an order, with or without a coupon code

Test Vectors:

Checking whether the total price is correct with single or multiple tickets purchased:

Expected Behavior: The calculated total should be correct for all the tickets purchased, taking into account the individual seat prices and the tax on it

Checking whether an applied discount code decrements the cost by the proper amount:

Expected Behavior: When a discount code is applied, the total price should be adjusted accordingly to the discount associated with the code

Checking whether a discount code is valid or not:

Expected Behavior: Discount code is applied if its valid, however, if the discount code is invalid there should be no change in the original price and an error message should return indicating that the entered discount is invalid

System Tests:

Payment Processing:

Functionality: Aims to test that the payment process is properly functioning, seeing if a payment method is valid, and determining whether the payment has been successfully processed.

Test Vectors:

Checking for ability to place an order and proceed to payment:

Expected Behavior: After an order is placed, the system must successfully redirect the customer to a payment page, where their payment credentials will be assessed

Entering valid payment information after placing an order and sending confirmation:

Expected Behavior: Should indicate to the user that the payment is valid and after it is processed, accordingly send a confirmation on the purchase with info on the tickets reserved.

Verify that a payment has been received and processed:

Expected Behavior: After an order has been successfully placed, the seats should be unreservable to indicate that someone else has purchased them. The purchase status should also be marked as successfully processed and the order status as received.

Testing for invalid payment after order has been placed:

Expected Behavior: Should verify whether the payment has been processed and if not an order should not be created, and the seats should not be marked as 'reserved'. Furthermore, should return the user an error message denoting that the order was not processed, and to try again.

Test Cases

Link to sheet doc:

https://docs.google.com/spreadsheets/d/1CrnEWCWfMXO2kK_Ab-sNx74A1SbJbqxhbn61ukjDxiQ/edit?usp=sharing

Test Case Template									
Test Case Id	Component	Priority	Description/Test Summary	Pre-requisites	Test Steps	Expected Result	Actual Result	Status	Test Executed By
Login_1	Login_Module	P1	Verify that when a user enters their login information and clicks "login", they will be logged into their account.	Application is opened	1. Open the application 2. Once application is launched, enter user information for login. 3. Press enter.	User should be logged into the theater ticketing application	User is logged into the theater ticketing application	Pass	Tester
Reserve_Seat_1	Reserve_Seat_Module	P2	Verify that when a user selects a movie to watch, they are able to reserve their seating for the showing they chose.	User is logged into the application and movie time is already selected	1. Select the movie and showing desired. 2. Once selected, choose an open seating in the theater displayed. 3. Press confirm.	User should be able to select an open seat for the movie showing that was chosen.	User is able to select an open seat for the movie showing that was chosen.	Pass	Tester
Cancel_Order_1	Cancel_Order_Module	P1	Verify that when a user decides to cancel an order for a ticket they had already purchased.	Ticket has been purchased	1. In the application menu select the "My Tickets" option displayed. 2. Once selected, choose the tickets you wish to cancel an order for. 3. Press confirm.	User should be able to cancel an order for tickets that they had purchased for a movie showing.	User is able to cancel an order for tickets they had purchased for a movie showing.	Pass	Tester
Search_Movies_1	Movie_List_Module	P1	Verify that when a user searches a movie name, a list of showings for that movie should be displayed.	Application is opened and movie exists	1. In the search bar in the application menu, write the movie name. 2. Press enter.	Search results for the movie name should be displayed	Search results for the movie name are displayed	Pass	Tester
Check_Movie_Description_1	Movie_Info_Module	P3	Verify that when a user selects a movie, a description of the movie is shown.	Application is opened and movie exists	1. Select the movie and showing desired. 2. Once selected, scroll down to read the description.	Description should be displayed once a movie is selected.	Description is displayed once a movie is selected.	Pass	Tester
CheckAvailability_1	Seating_Chart_Module	P1	Verify that seat availability has changed to occupied	Ticket transaction has occurred	1. Go to movie time -> seat availability 2. Check if seat is gray or orange	SeatAvailability should be set to false	Seat is gray on diagram, indicates occupied	Pass	Tester J
Process Transaction_1	Ticket_Payment_Module	P2	Verify that payment has occurred	1. Seat and Movie has been selected 2. Payment information has been inputted 3. Confirm button has been pressed	1. Select movie and seat 2. Enter Payment information 3. Press confirm	Confirmation email should be given with online ticket. Payment has occurred	Conf. Email sent Transaction processed	Pass	Tester J
Read_Movie_Rating_1	Movie_Info_Module	P3	Verify that the movie critic rating is displayed correctly	Movie exists, critic rating exists in object	1. Go to Movie List page 2. Click on movie 3. Scroll to critic rating section	Movie Critic Rating should be properly displayed	Critic rating displayed on movie info page	Pass	Tester J
Use_Ticket_Discount_1	Ticket_Payment_Module	P3	Verify that discount has been applied to the ticket cost	Valid coupon code has been applied OR User status calls for discount	1. Select Movie time and seat 2 (conditional). Apply code in coupon section 3 (if 2 is completed). Press apply button	Total Cost should be reduced by proper percentage	Total cost was reduced based on coupon or discount status	Pass	Tester J
Edit_User_Email_1	User_Profile_Module	P2	Verify that user can edit email in profile	User profile exists Email is valid email	1. Go to edit user profile page 2. Enter new email address 3. Press apply changes button	A confirmation email should be sent to the new email. If confirmed, the user email variable should be changed	Conf. Email was sent. User email was changed	Pass	Tester J