

# Software Design & Architecture [SOFE 3650]

## Project Title: Drive-in Theatre

### Project Group Members (Course Group 13):

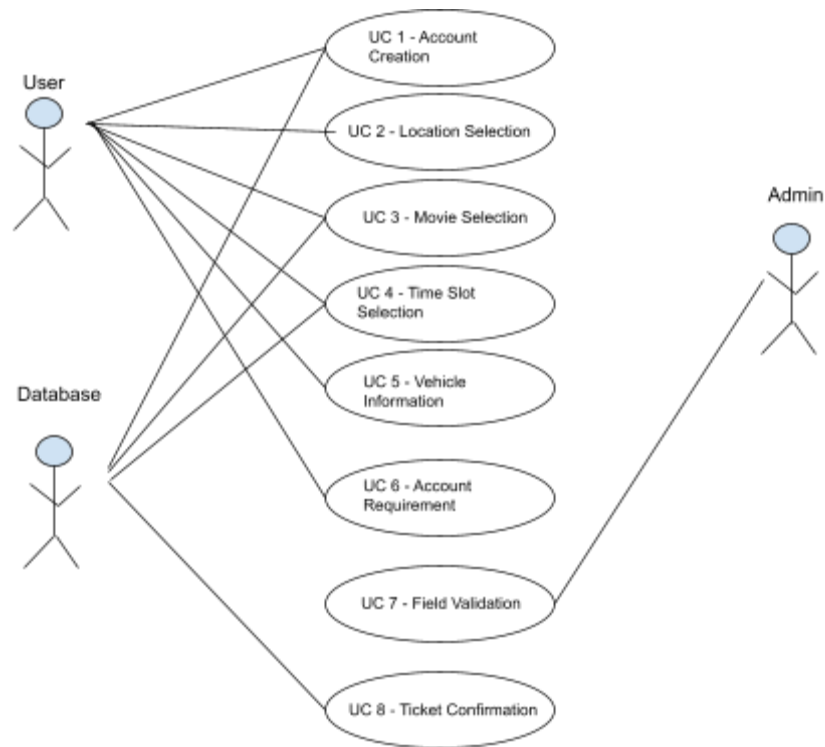
Poojah Karunakaran (100618754)

Kevin Erskine (100762922)

Ivan Bisol (100701735)

Misha Larionov (100743093)

Use Case	Description
UC-1: Account creation	A user will create their account using their email and a password following certain security guidelines. The user's login information will then be stored in a secured database. The user will then fill out additional information such as name, preferred vehicle, contact information, and address.
UC-2: Location selection	Users will have their "home" theatre auto selected based on their location when first creating an account with the option to select a different theatre if desired.
UC-3: Movie selection	As users go to search for tickets, their selected theatre is queried to display all movies showing for the next week by default and users can change the desired dates.
UC-4: Time slot selection	Once users select a certain movie to view, they are then shown all the available time slots for that movie at their specific theatre.
UC-5: Vehicle Information	After users have selected their theatre, movie, and time slot, they are then asked if they'll be using their preferred vehicle or if they'd like to add a different vehicle to use.
UC-6: Account Requirement	As users proceed to the check out page, they will be redirected to a registration page if they aren't already logged in to ensure that all ticket holders are registered users.
UC-7: Field validation	Users will only be able to proceed with certain processes (account creation, personal info, payment, etc.) once all required fields have been filled with valid data
UC-8: Ticket confirmation	Once users have paid for their tickets, a unique confirmation ID will be sent to their email address used for account creation.



### Quality Attributes for the use cases

Use Case	Availability	Interoperability	Security and Privacy	Scalability	Maintainability	Usability
UC - 1: Account Creation	✓		✓	✓	✓	✓
UC - 2: Location selection	✓			✓	✓	✓
UC - 3: Movie selection	✓			✓	✓	✓
UC-4: Time slot selection	✓			✓	✓	✓
UC-5: Vehicle Information	✓			✓	✓	✓

UC-6: Account Requirement	✓			✓	✓	✓
UC-7: Field validation	✓	✓	✓	✓	✓	
UC-8: Ticket confirmation	✓	✓		✓	✓	

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Availability	Each step towards the end of the website is essential for the transaction to proceed. So it is important that the system is working smoothly throughout the process.	ALL
QA-2	Usability	As a website commuting to all kinds of customers it should be appealing and aesthetic to everyone. Also must be accessible to people with disabilities for ease. It should be simple, easy and straightforward to use.	ALL
QA-3	Security and Privacy	Customers will be sharing their personal information, such as date of birth, address, vehicle information and credit card details. This must be stored and used securely on the website, thus Security must be prioritized.	UC-1 ; UC-7
QA-4	Interoperability	For Use Case 7, the website interacts with external online purchasing sites when the user pays for the tickets. Additional Use Case 8, interacts with the user's email account to send a ticket confirmation. The website should be able to exchange information between these external sites smoothly and securely.	UC-7 ; UC-8
QA-5	Scalability	There will be several customers accessing the site at the same time, perhaps more during high-demand for certain movies or at certain times. The system should be able to handle this without affecting the system while also accommodating when the customer changes details on their tickets and	ALL

		then updating the system based on these changes accordingly.	
QA-6	Maintainability	This website will be constantly going through changes to update ticket details, timings and movies as well. Between these changes there should be no errors and should adapt to these changes easily.	ALL

•System Constraints for the use cases

ID	Constraint
CON-1	The system must be accessible and functional on all major browsers (Chrome, Firefox) on all desktop platforms (Windows, OSX, Linux)
CON-2	The system must store user data securely and passwords must not be visible, even in the event of a data breach
CON-3	The system must be able to handle a minimum of 25 simultaneous users
CON-4	Ticket information must be stored and accessible by user for 30 days after movie is over
CON-5	All collected information must be stored and accessed from a database