



LUNAR MOTION

Film Festival Group Project

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1. Preliminary Analysis

1.1 Project Charter

The LunarMotion Ticket Sales and Film Streaming Service is designed to meet the demands of the customers as well as make the process of selling tickets and viewing films more streamlined for the Lunar Motion company. The primary goal is to have a central hub where all transactions for ticket sales can be completed in an organized and quick manner, while the secondary goal is to have a complete online library of each season's films available to every qualifying customer. This document will clarify all the goals, objectives, context, general system requirements, cost benefit analysis, scope of the project, as well as any other deliverables that the LunarMotion Ticket Sales and Film Streaming Service will require.

1.1.1. Historical Context

The LunarMotion Film Festival is held every four months out of the year and rotates to a new city during each season. It is advancing toward becoming the second most popular film festival in the United States. Because of this exponential growth, LunarMotion needs a ticket sales system that is more expedient than their current system of selling tickets at the door. With this new system, customers will be able to purchase tickets online from any location and will receive the added benefit of being able to stream those films online until the next cycle of the festival.

1.1.2. Goals

The primary goal of the new LunarMotion Ticket Sales System and Streaming Service is for customers to have a more convenient way to browse and purchase tickets online as well as stream the films for each seasonal pass that they purchase.

1.1.3. Objectives

The primary objective of the LunarMotion Ticket Sales and Streaming Service is for it to be a one-stop location for both browsing and purchasing available tickets and viewing films featured during each seasonal pass from multiple devices.

Other objectives include a comprehensive rating system that alerts viewers to content such as violence, gore, sexual scenarios, and offensive language. Links to local amenities will also be featured on the site as well as information for filmmakers to submit their work for consideration.

1.1.4. Scope

The scope of the project is for LunarMotion to be able to provide ticket information and streaming for selected films in one centralized location. This makes it easier for customers to find everything they need in a condensed and streamlined system instead of having to purchase tickets in person on the day of the festival itself.

1.1.5. General System Requirements

The system requires a functioning customer database to store user account and payment information, as well as a database to categorize each film. It also requires adequate bandwidth to stream the films featured on the application.

1.1.6. Deliverables

The main deliverables include a list of available tickets for each season as well as a platform to stream those films featured at that season's festival. A user account to store user information and payment info is also needed. Other deliverables include a comment section and rating system for customers to leave feedback, links to local amenities in each festival location, and an area for filmmakers to submit their films for consideration to be included in the next festival schedule.

2. Project Management

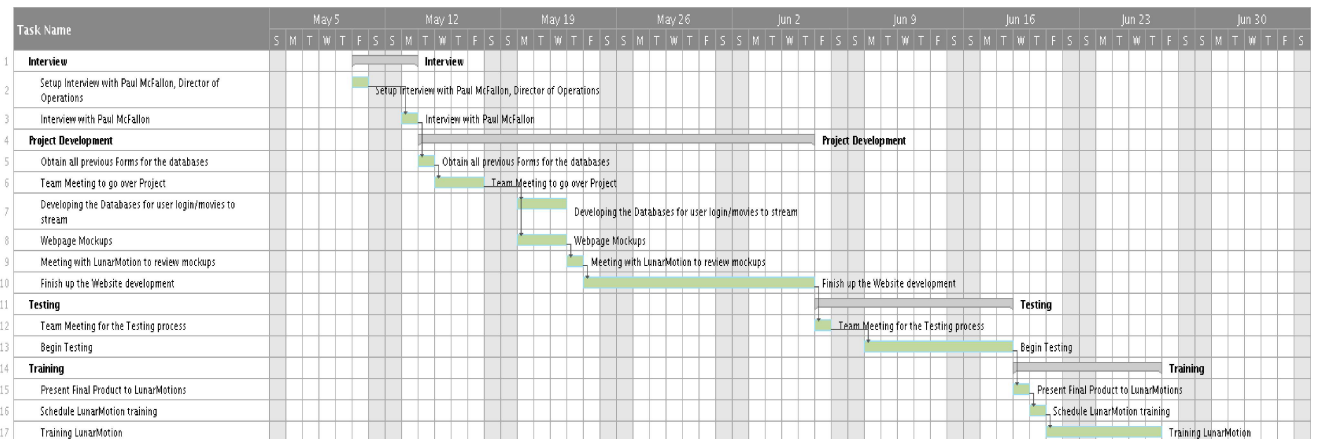
2.1 Cost Benefit Analysis

The main benefit of the new LunarMotion Ticket Sales and Streaming Service is to save time when selling tickets by no longer having to sell each one in person the day of the event. This expedited process will free up time browsing vendor stations at the festival before the films are presented. Allowing the customers to also stream the films at home will give them a sense of getting more for their money and will entice them to purchase more tickets in the future. The online customer accounts will make future ticket purchases easier to complete because the customer will not have to spend time re-entering the data that is stored in the customer database.

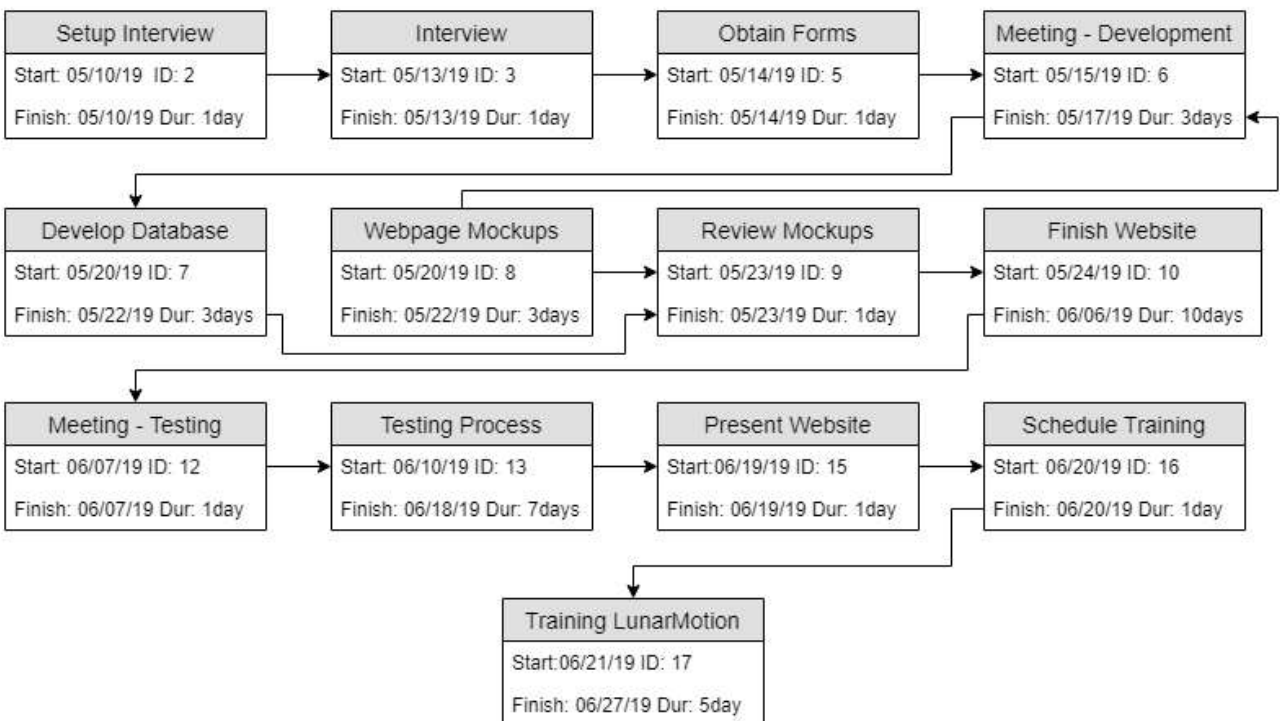
2.2 Future Tasks

Task Name	Start Date	End Date	Duration	Predecessors	% Complete	Status
Interview	05/10/19	05/13/19	2d			Not Started
Setup Interview with Paul McFallon, Director of Operations	05/10/19	05/10/19	1d			Not Started
Interview with Paul McFallon	05/13/19	05/13/19	1d	2		Not Started
Project Development	05/14/19	06/06/19	18d			Not Started
Obtain all previous Forms for the databases	05/14/19	05/14/19	1d	3		Not Started
Team Meeting to go over Project	05/15/19	05/17/19	3d	5		Not Started
Developing the Databases for user login/movies to stream	05/20/19	05/22/19	3d	6		Not Started
Webpage Mockups	05/20/19	05/22/19	3d	6		Not Started
Meeting with LunarMotion to review mockups	05/23/19	05/23/19	1d	8		Not Started
Finish up the Website development	05/24/19	06/06/19	10d	9		Not Started
Testing	06/07/19	06/18/19	8d			Not Started
Team Meeting for the Testing process	06/07/19	06/07/19	1d	10		Not Started
Begin Testing	06/10/19	06/18/19	7d	12		Not Started
Training	06/19/19	06/27/19	7d			Not Started
Present Final Product to LunarMotions	06/19/19	06/19/19	1d	13		Not Started
Schedule LunarMotion training	06/20/19	06/20/19	1d	15		Not Started
Training LunarMotion	06/21/19	06/27/19	5d	16		Not Started

2.3 GANTT Chart

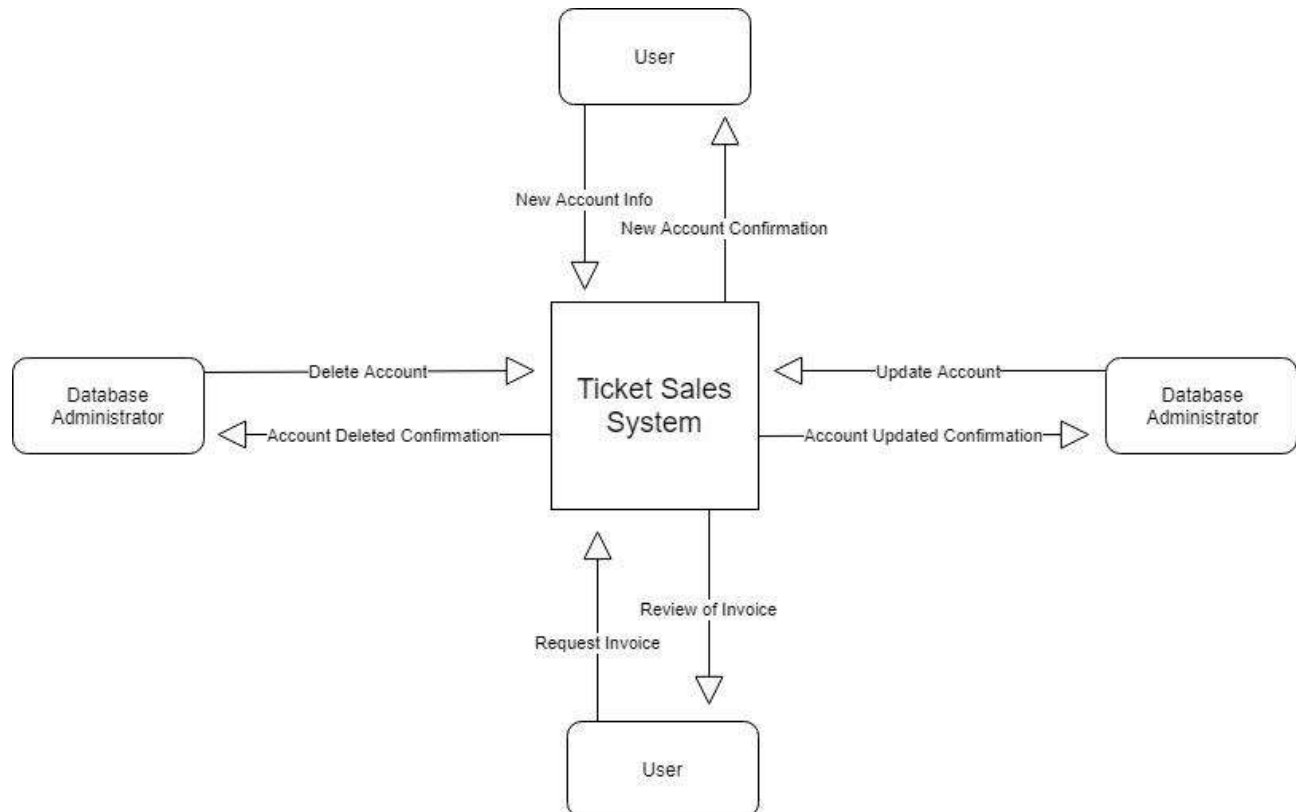


2.4 PERT Chart(Network Diagram)



3. Detailed Analysis

3.1 Context Level Diagram



3.2 Data Dictionaries

3.2.1 Customer Data Dictionary

Customer

Name	Field	Description	Type
Customer ID	customerID	Unique identifier for each customer	INT AUTO_INCREMENT
First Name	firstName	Customer's first name	VARCHAR (20)
Last Name	lastName	Customer's last name	VARCHAR (30)
Address	address	Customer's address	VARCHAR (60)
City	city	Customer's city	VARCHAR (30)
State	state	Customer's state	CHAR (2)
ZIP	zip	Customer's ZIP code	VARCHAR (10)
Phone	phone	Customer's phone number	VARCHAR (10)
Email	email	Customer's email	VARCHAR (60)

3.2.2 Film Data Dictionary

Film

Name	Field	Description	Type
Film ID	filmID	A unique identifier for each film	INT
Title	title	Lists the title for each film	VARCHAR (60)
Company	company	Name of the production company for the film	VARCHAR (30)
Description	description	A brief synopsis of each film	VARCHAR (140)
Duration	duration	The length of the film	VARCHAR (10)
Content Warning	contentWarning	A list of any offensive or sensitive content	VARCHAR (10)
Viewer Rating	viewerRating	A record of ratings viewers give to the film	ENUM (A, B, C, D, F)
Comments	comments	Any comments viewers leave on the film	TEXT
Season	season	Which season the film is for (winter2019)	VARCHAR (10)

3.2.3 Ticket Data Dictionary

Ticket

Name	Field	Description	Type
Ticket ID	ticketID	Unique identifier for each ticket available	INT AUTO_INCREMENT
Quantity Available	quantityAvailable	The amount of tickets available for purchase	INT
Price	price	The price listed for each ticket	DECIMAL (5, 2)
Season	season	Which season the ticket is for (winter2019)	VARCHAR (10)

3.2.4 Invoice Data Dictionary

Invoice

Name	Field	Description	Type
Invoice ID	invoiceID	A unique identifier for each invoice	INT AUTO_INCREMENT
Invoice Date	invoiceDate	Date the invoice was issued	DATE
Subtotal	subtotal	Subtotal for the issued invoice	DECIMAL (5, 2)
Sales Tax	salesTax	Any sales tax applied to the ticket sale	DECIMAL (5, 2)
Shipping	shipping	Any shipping fees	DECIMAL (5, 2)
Total	total	The complete total for the ticket sale	DECIMAL (5, 2)
Customer ID	customerID	Unique identifier for the customer	INT

3.2.5 LineItem Data Dictionary

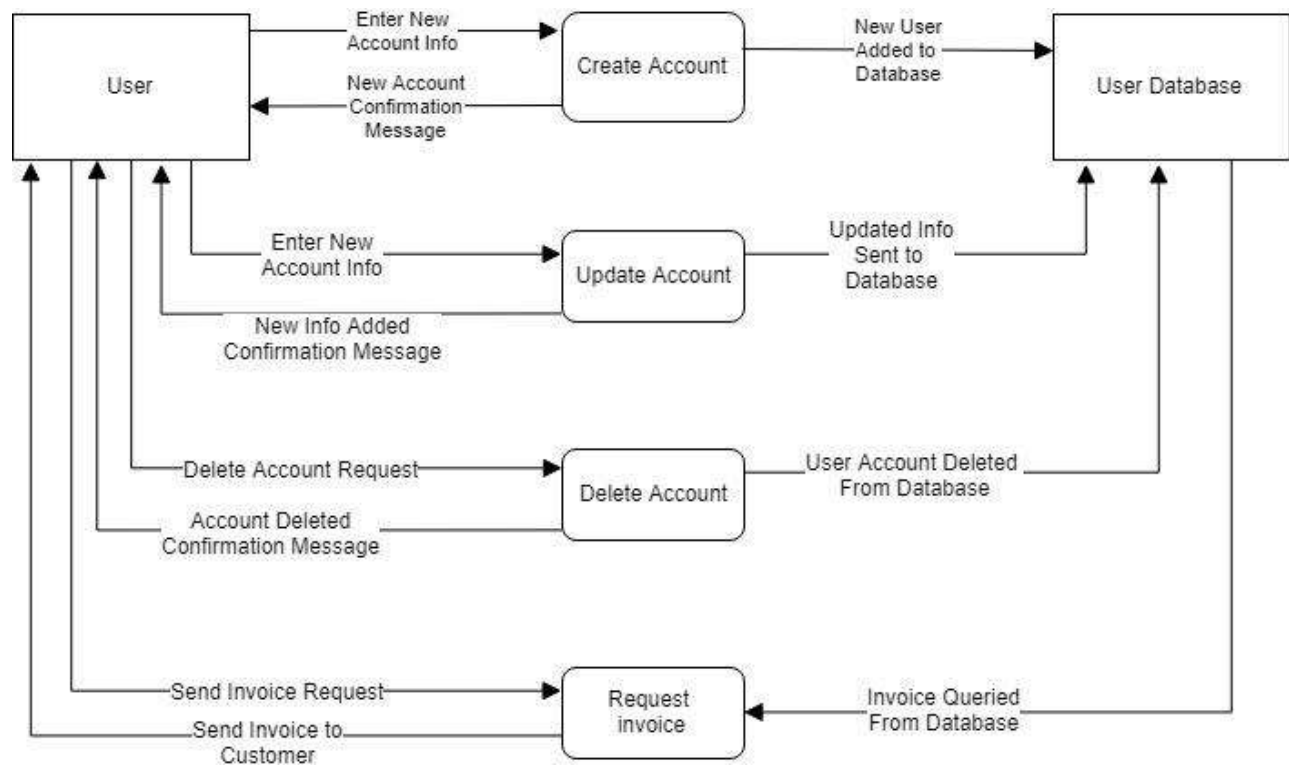
Line Item

Name	Field	Description	Type
Invoice ID	invoiceID	Unique identifier for each invoice	INT
Ticket ID	ticketID	Unique Identifier for each ticket sold	INT
Date Ordered	dateOrdered	Date the order was made	DATE
Quantity Ordered	quantityOrdered	The quantity of tickets in each order	INT
Line Total	lineTotal	The line item total	DECIMAL (5, 2)

3.2.6 User Data Dictionary

User			
Name	Field	Description	Type
Username	username	Customer's username	VARCHAR (15)
Password	password	Customer's password	VARCHAR (60)
Customer ID	customerID	Unique identifier for each customer	INT
Ticket ID	ticketID	Unique identifier for each ticket purchased	INT

3.3 Data Flow Diagrams



3.3.1 Process Specifications

3.3.1.1 Create User Account Specification:

Number: 1

Name: Create Account

Description: To create a new user account to purchase tickets and view films

Input: New account information (Username, Password, Contact Information)

Output: Account created confirmation message

Type of Process: Online[] Batch[] Manual[x]

Process Logic:

GET Username

GET Password

GET Contact Info

OPEN User Database

CREATE New Record (Username, Password, Contact Info)

CLOSE User Database

3.3.1.2 Edit Account Process Specification

Number:2

Name: Update Account

Description: To edit an existing user account

Input:

Account information (Username, New Password, New Contact Info)

Output:

Confirmation of updated information message

Type of Process: Online[] Batch[] Manual[x]

Process Logic:

GET Current Username

GET New Password

GET New Contact Info

OPEN User Database

WHERE Current Username = New Username

Password = New Password

Contact Info = New Contact Info

CLOSE User Database

3.3.1.3 Delete Account Process Specifications

Number: 3

Name: Delete User Account

Description: To delete an existing user account

Input:

Account to be deleted (Username)

Output:

Deleted account confirmation message

Type of Process: Online[] Batch[] Manual[x]

Process Logic:

GET Username

OPEN User Database

DELETE record WHERE username = username

CLOSE User Database

3.3.1.4 Retrieve Invoice Data Process Specifications

Number: 4

Name: Retrieve Invoice Data

Description: Retrieve invoice for ticket sales and preview it for the user

Input:

Record Key (InvoiceID)

Output:

Review of invoice

Type of Process: Online[] Batch[] Manual[x]

Process Logic:

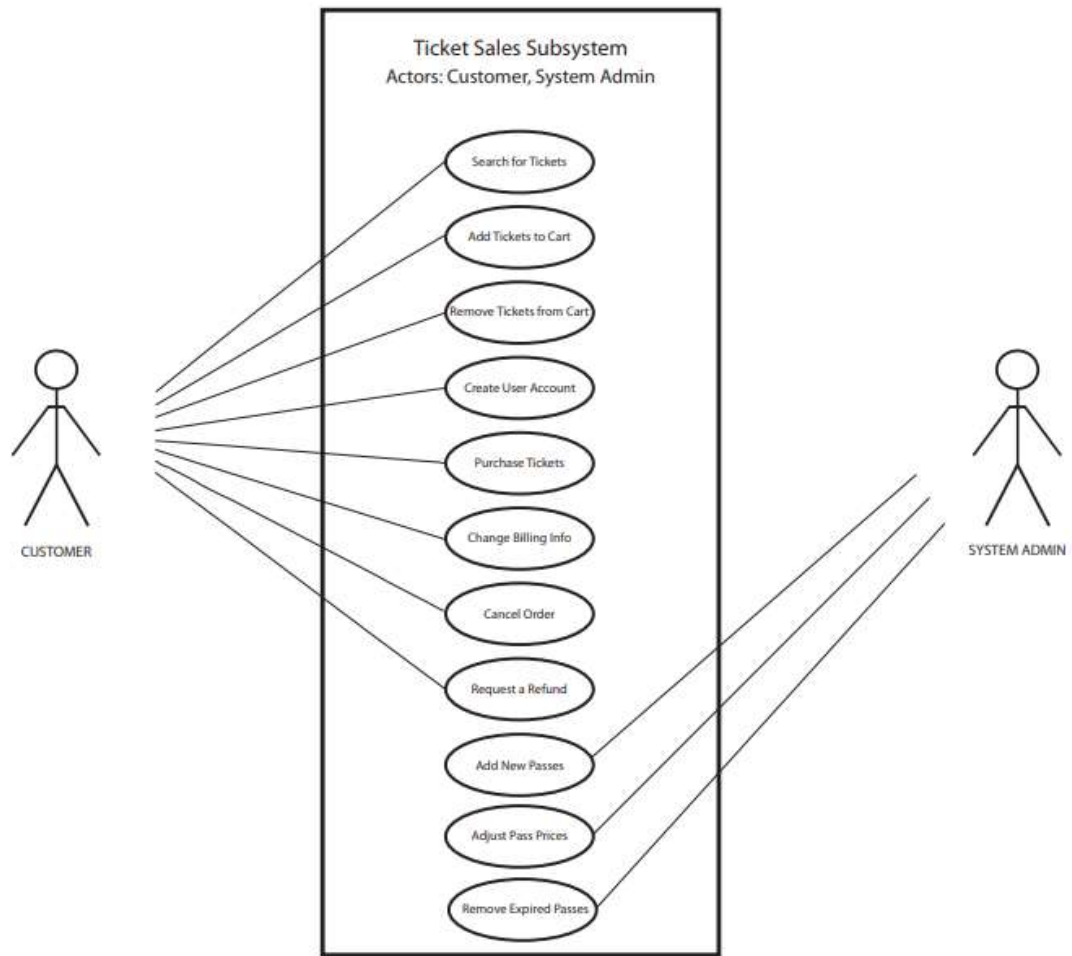
GET InvoiceID

OPEN Invoice table

READ record WHERE InvoiceID = InvoiceID

Display record

3.4 Use Case Diagram



3.5 Use Case Narratives

3.5.1 Refund Ticket

Use Case Name: Refund Ticket

Area: Film Festival

Actors: Customer/System

Description: Allows the customer to refund the ticket that he/she bought.

Steps Performed:

	Information Needed:
Customer Purchases tickets	Prints receipt
Customer wants a refund	Enters receipt information
Customer no longer has ticket	

Pre-Conditions: User has ticket he/she can not use

Post-Conditions: User has refunded ticket and got money back.

Requirements met: The user has refunded a ticket and got his/hers money back.

Priority: Medium

3.5.2 Search for Tickets

Use Case Name: Search For Tickets

Area: Film Festival

Actors: Actor

Descriptions: Allows the user to look up tickets.

Steps Performed:

	Information Needed:
Customer Logs In	Email & Password
Customer looks up movie name and date	Movie name & Date
Customer finds ticket and purchases it	

Pre-Conditions: User searches up tickets

Post-Conditions: User finds tickets

Requirements met: User was able to find the ticket he/she wanted by searching it up.

Priority: Medium

3.5.3 Add/Remove Tickets

Use Case Name: Add/remove tickets to cart

Area: Film Festival

Actors: Actor/System

Descriptions: Allows the user to add/remove tickets to cart

Steps Performed:

	Information Needed:
Customer searches for tickets	Movie name and Date
Customer clicks on ticket to add to cart	Add
Customer can keep ticket or remove	Add/Remove

Pre-Conditions: User had to buy tickets before searching again

Post-Conditions: User can now add/remove ticket to cart and continue searching

Requirements met: User is able to add a ticket to his/her cart to buy or continue searching or remove ticket

Priority: Low

3.5.4 Cancel Order

Use Case Name: Cancel Order

Area: Film Festival

Actors: Actor/system

Descriptions: Allows the user to cancel order.

Steps Performed:

	Information Needed:
Customer buys ticket	Prints receipt
Customer cancels order	Sends a confirmation email
Customer accepts confirmation email	

Pre-Conditions: User can not use tickets

Post-Conditions: User was able to cancel order

Requirements met: User was able to cancel his/her order.

Priority: Low

3.5.5 Add New Passes

Use Case Name: Adds new passes

Area: Film Festival

Actors: System

Descriptions: System Adds new passes to film festival

Steps Performed:

	Information Needed:
System creates new pass	
System Adds pass to film festival	

Pre-Conditions: No new passes

Post-Conditions: New passes

Requirements met: System Adds new passes

Priority: Low

3.5.6 Adjust Pass Prices

Use Case Name: Adjust Pass Prices

Area: Film Festival

Actors: System

Descriptions: System can adjust the price to passes

Steps Performed:

	Information Needed:
System finds pass	
System enters new price	
Pass Price changes	

Pre-Conditions: Price is the same

Post-Conditions: Price is fixed

Requirements met: Price for pass is fixed

Priority: Medium

3.5.7 Remove Expired Passes

Use Case Name: Removes Expired Pass

Area: Film Festival

Actors: System

Descriptions: Removes expired passes from film festival

Steps Performed:

	Information Needed:
Pass Expired	
System removes expired price from system	

Pre-Conditions: System has expired pass

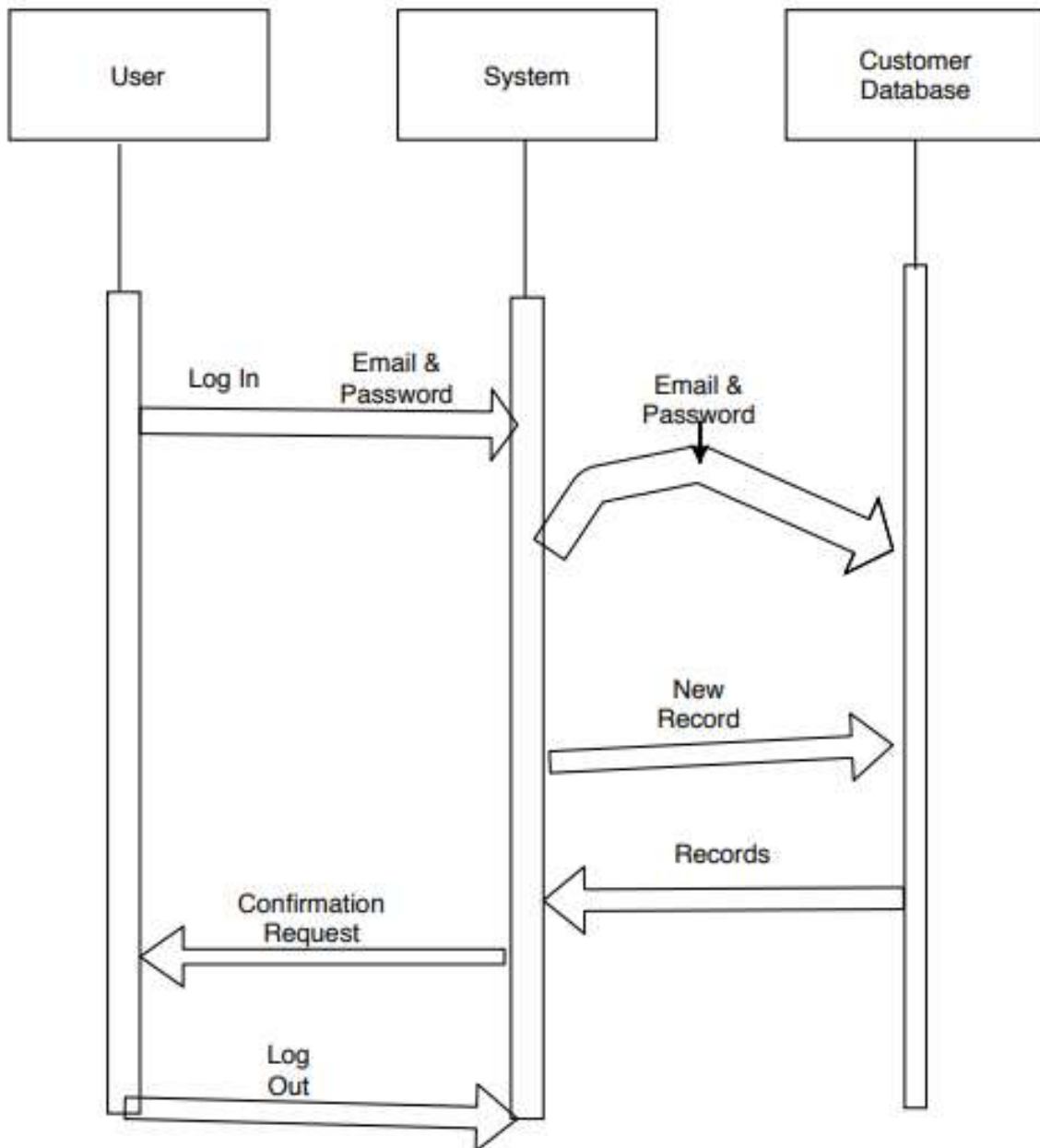
Post-Conditions: System removes expired pass

Requirements met: System removed expired pass from film festival

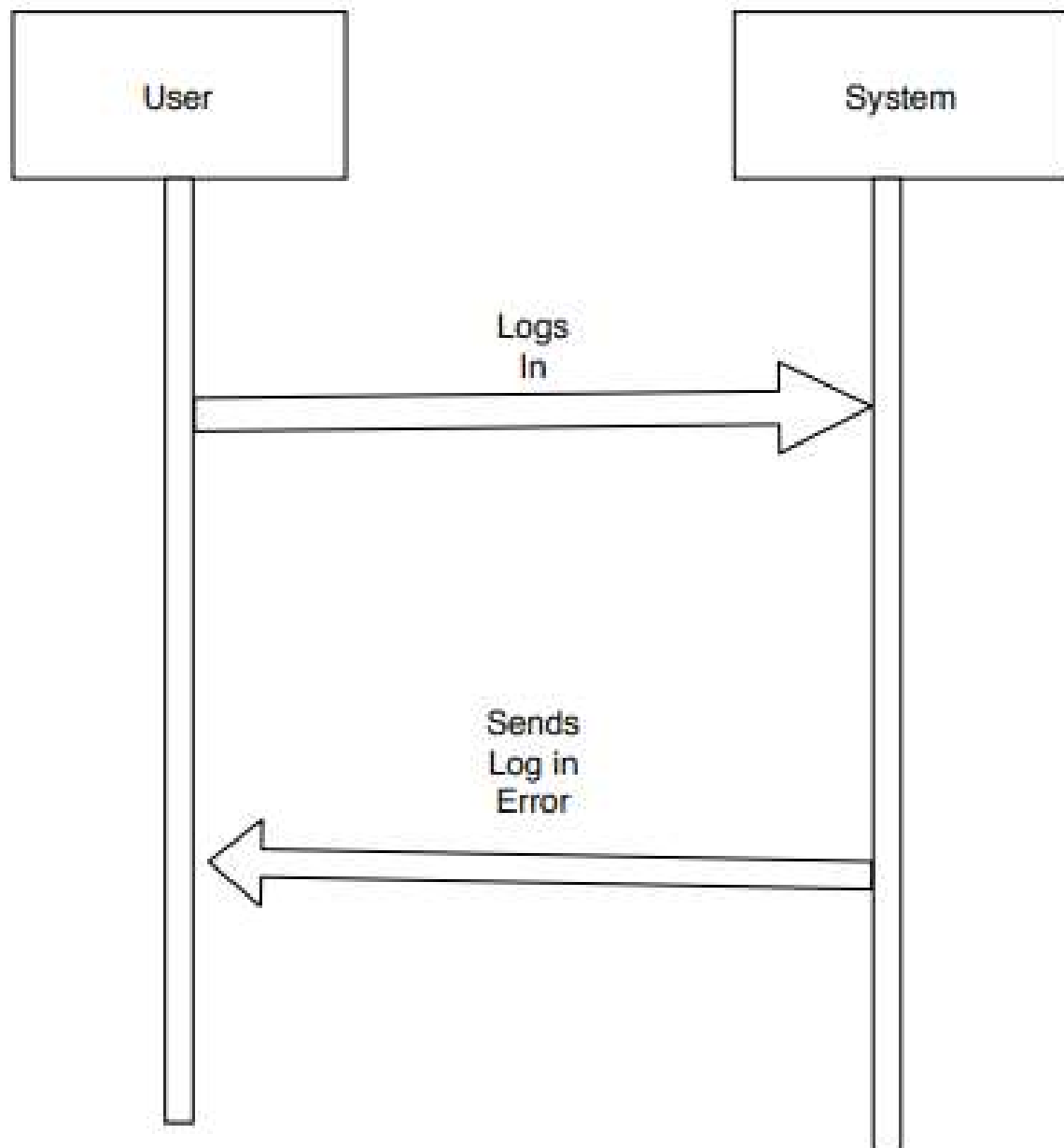
Priority: Low

3.6 Sequence Diagrams

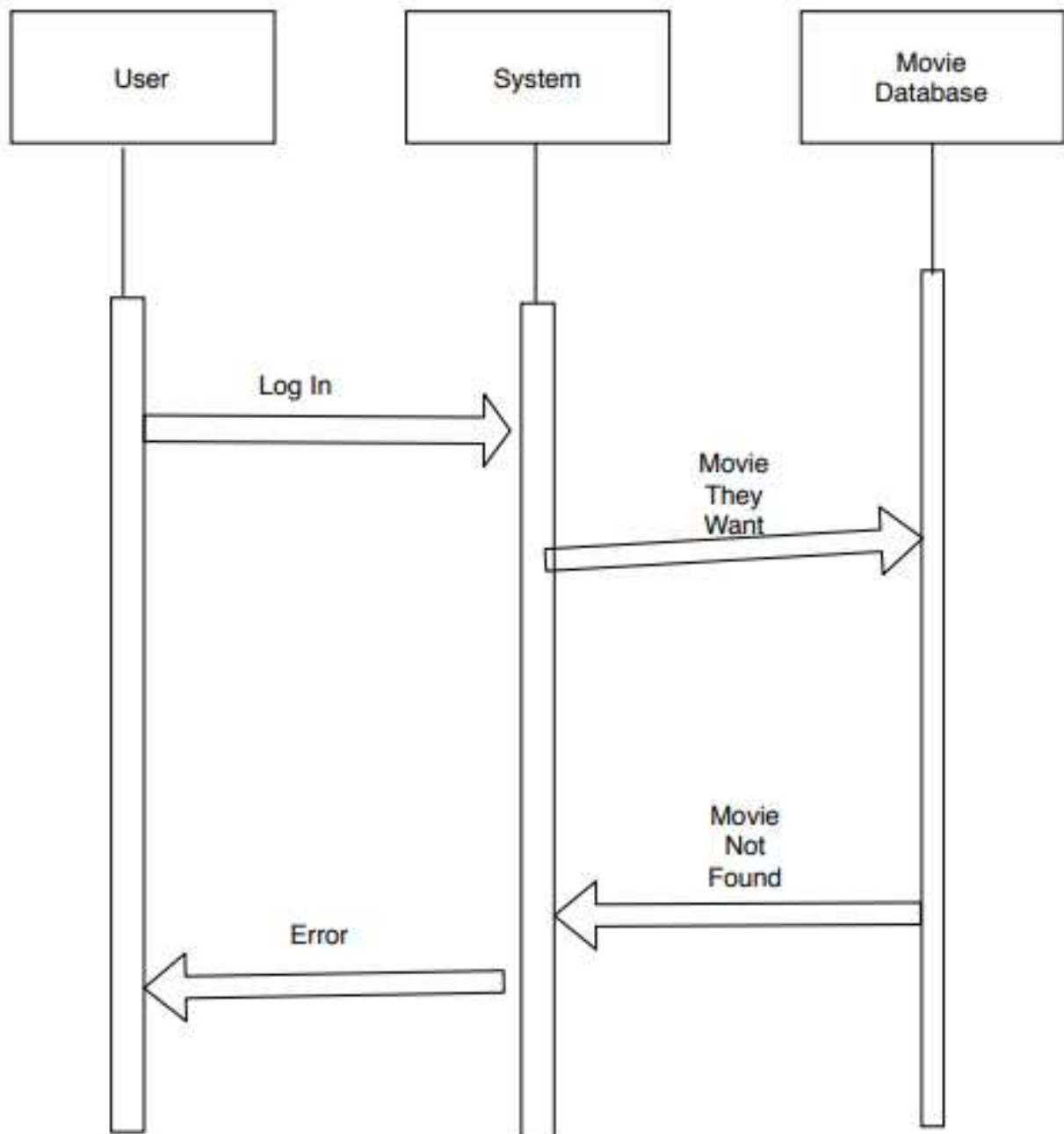
3.6.1 Accept Login



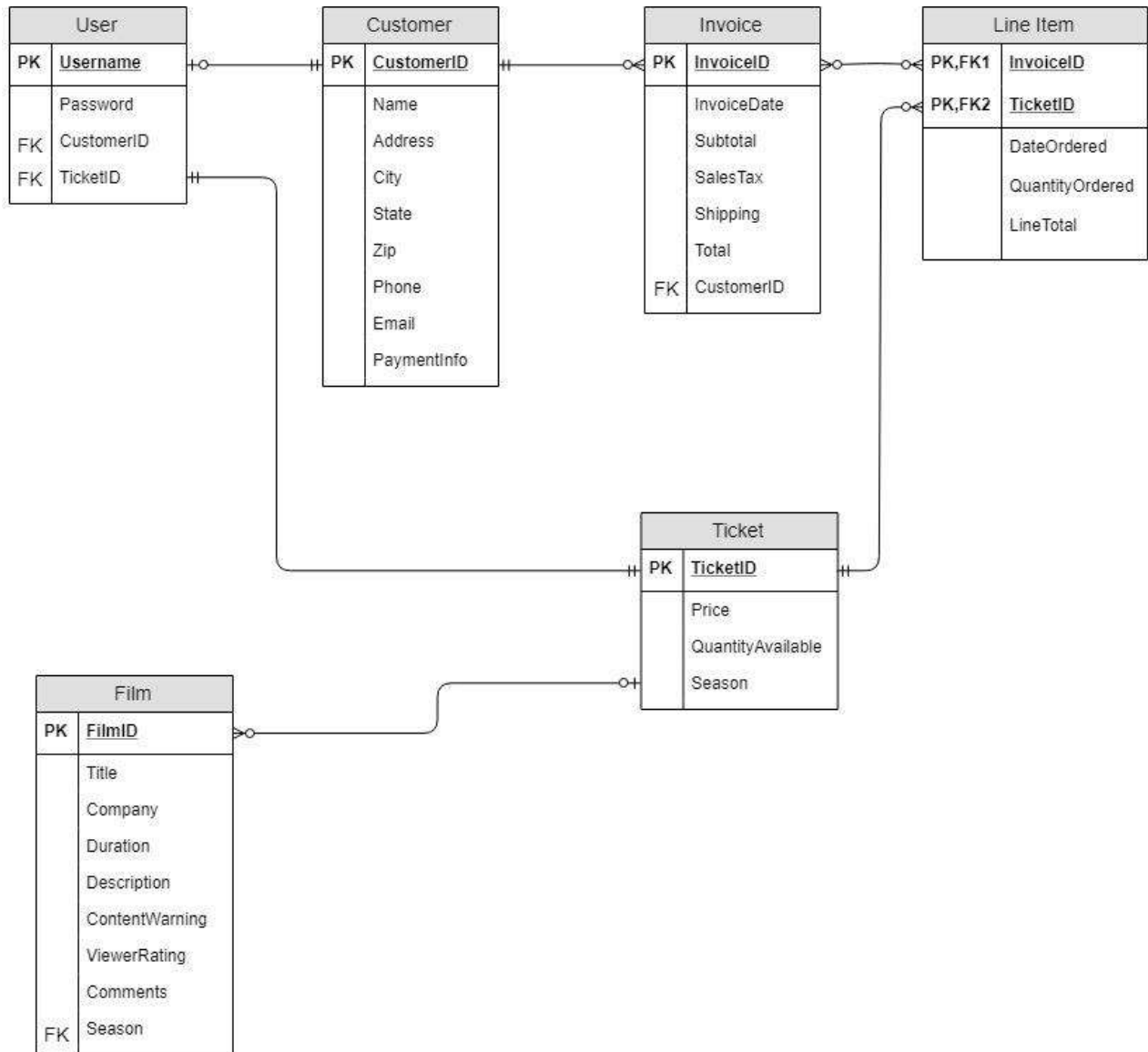
3.6.2 Login Error



3.6.3 Movie Not Found



3.7 Normalized ER Diagram



3.8 Functional Requirements

General

The System should only display the valid tickets on sale

The System should only allow people who have valid tickets to view the streaming service

The System should only display the correct streams to the user logged in

The System should only allow valid users to log in

The System should only allow valid usernames/passwords when creating an account

The System should only allow users ages 18+ to register for tickets/account

Data Stores

The System should only store account information in Accounts database

The System should only allow valid users the read and write privileges to the Tickets database

The System should only transfer the user data to the selected Event database

3.9 Non-Functional Requirements

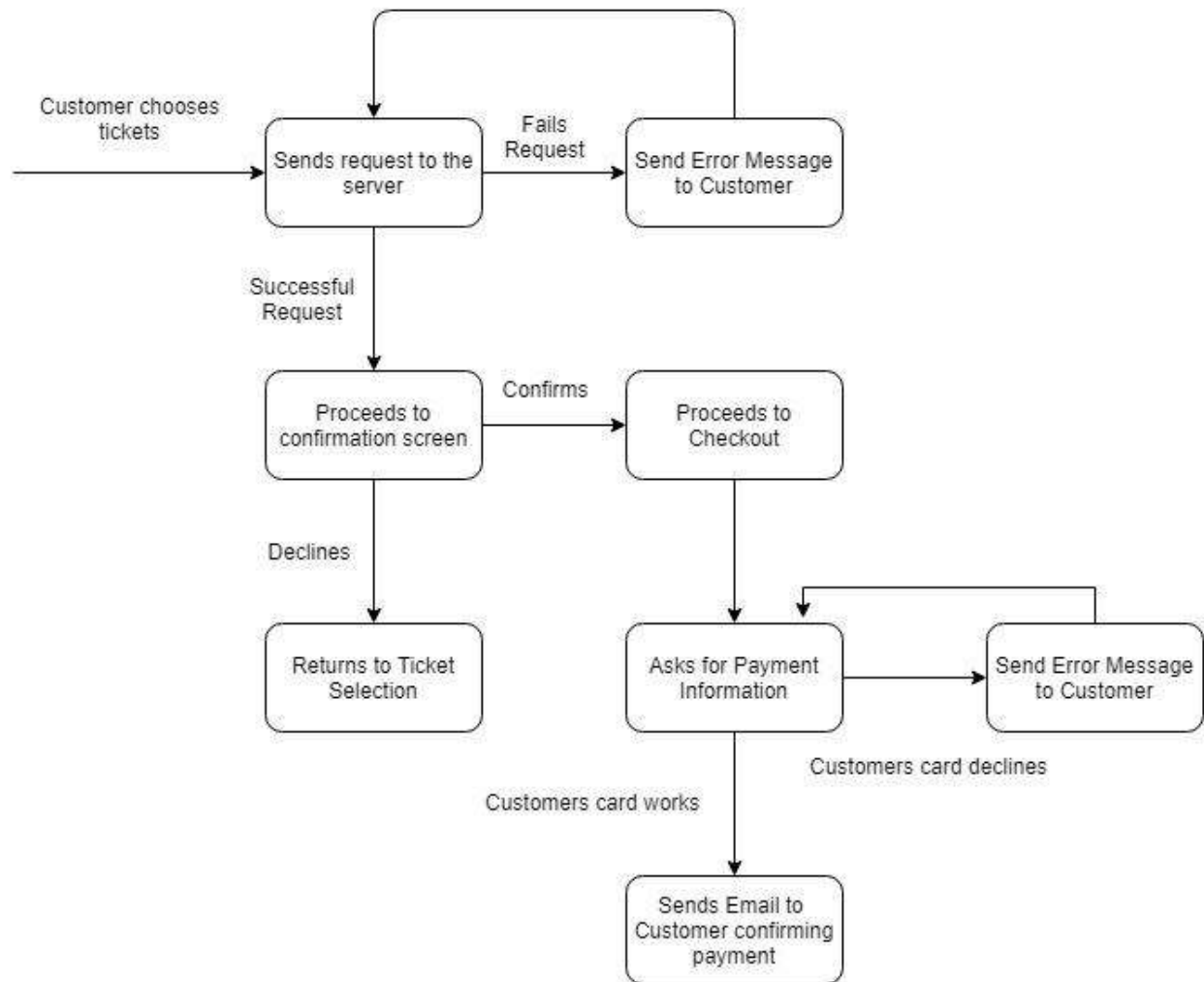
The webpage should be well organized

The navigation for the web page should be easy to understand

The size of the stream video player should be able to easily display on multiple devices

There should be an alternative site setup for mobile

3.10 State Diagram



3.11 UI Storyboards

