Refactored-Guacamole

Spring 2019

Group #8

Royan Hanson
Micheal Smith
Chad Smith
Yash Shah
Paul Lee

Feb 5th, 2019

Yash Shah

RELATED COURSEWORK

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Data Structures

- Basic concepts and analysis of data representation and associated algorithms, including linearly-linked lists, multi-linked structures, trees, searching, and sorting

Computer Organization and Programming

- Main topics include computer structure and machine language, addressing techniques, macros, file I/O, program segmentation, and linkage

System-Level Programming

- An introduction to programming at the level of the operating system. Topics include editors, system calls, programming tools, files, processes, interprocess communication, and shells

SKILLS .

Programming: Java | C | Assembly Language

Technologies: Eclipse | Github | Slack | Visual Studio | PowerPoint

Micheal Smith

RELATED COURSEWORK

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Data Mining

- The process of discovering patterns in large data sets involving methods at the intersection of machine learning, statistics, and database systems

Design & Analysis: Algorithm

- Algorithms course with an emphasis on teaching techniques for the design and analysis of efficient algorithms, emphasizing methods of application.

Computer Architecture

- Learn to design the computer architecture of complex modern microprocessors.

SKILLS .

Programming: Java | HTML | CSS | Node.JS | JavaScript

Technologies: Visual Studio Code | Github | Slack

Paul Lee

RELATED COURSEWORK

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Data Structures

- Basic concepts and analysis of data representation and associated algorithms, including linearly-linked lists, multi-linked structures, trees, searching, and sorting

Computer Organization and Programming

- Main topics include computer structure and machine language, addressing techniques, macros, file I/O, program segmentation, and linkage

Computer Vision

- An introduction to the field of computer vision. This topic includes image processing, and all of the math theory behind computer vision.

SKILLS .

Programming: Java | Assembly Language

Technologies: Eclipse | Github | Visual Studio | PowerPoint

Royan Hanson

RELATED COURSEWORK

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Data Structures

- Basic concepts and analysis of data representation and associated algorithms, including linearly-linked lists, multi-linked structures, trees, searching, and sorting

Design & Analysis: Algorithm

- Algorithms course with an emphasis on teaching techniques for the design and analysis of efficient algorithms, emphasizing methods of application.

Computer Architecture

- Learn to design the computer architecture of complex modern microprocessors.

SKILLS

.**Programming:** Java | C | X86

Technologies: Visual Studio Code | Slack | Eclipse

Chad Smith

RELATED COURSEWORK

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Data Structures

- Basic concepts and analysis of data representation and associated algorithms, including linearly-linked lists, multi-linked structures, trees, searching, and sorting

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- Main topics include computer structure and machine language, addressing techniques, macros, file I/O, program segmentation, and linkage

System-Level Programming

- An introduction to programming at the level of the operating system. Topics include editors, system calls, programming tools, files, processes, interprocess communication, and shells

SKILLS .

Programming: Java | HTML | CSS | Assembly Language

Technologies: Eclipse | Visual Studio | Sublime Text | Codeblocks

Work Breakdown Structure

Assignee Name	Email	Task	Duration (Hours)	Dependency	Due date	Note
Micheal Smith **(Team Coordinator)**	msmith303@student.gsu.edu	-Github -Groupme -Google Docs -Problem Statement	2 Hours	Get everything running	1/26/2019	None
Paul Lee	plee30@student.gsu.edu	-System Requirements	4 Hours	None	1/28/2019	None
Royan Hanson	rhanson3@student.gsu.edu	-Problem Statement	1 Hour	None	1/27/2019	None
Yash Shah	yshah4@student.gsu.edu	-Teamwork Basics	2.5 Hours	None	1/29/2019	None
Chad Smith	csmith324@student.gsu.edu	-Problem Statement	1 Hour	None	1/26/2019	None

TeamWork basics

In order to maximize group success, it's important to not only meet deadlines but also keep group satisfaction high. In order to achieve this goal, it's important for group members to hold themselves accountable and also be transparent when they're running behind schedule or need help. Moving forward, work will be distributed according to everyone's strengths. Also a project facilitator will be used for each assignment whose responsibilities include holding people to deadlines and generally maintaining team satisfaction.

Work will be distributed in sections to each group member. We decide on deadlines during our scheduled in-person meetings and post them to the slack channel. If someone is incapable of meeting his or her commitment, we will take note of it and try to provide that group member with support as needed. If that member is still incapable of meeting their responsibilities, the remaining work will be distributed to other team members. While group members will have different work habits, having set deadlines will ensure that work continues to work at a maintainable pace for the group.

In our group, we will be using a facilitator. The facilitator will help with: scheduling meetings, guiding online and in-person discussions on how to keep the project moving forward, reminding members of deadlines, and generally holding members accountable to the commitments and expectations agreed upon during in-person meetings.

We will be keeping in contact with each other frequently using Groupme and semi-frequently at in-person meetings. Our meetings have usually taken place after class as that seems to be when everyone is available. Moving forward, meetings will be held in the library, unless for some reason that isn't possible. People who are late for the meeting will need to be caught up on what the current tasks are. Those who miss a meeting entirely will be expected to get caught up using Groupme. Several missed meetings will result in a discussion with a said team member. If they do not adjust their behavior moving forward, it may result in their work being reassigned and a note sent to the professor.

Eating at meetings will be allowed as long as it doesn't distract from the purpose of the meeting. Smoking during the meetings would not be appropriate, but members are free to smoke outside before meetings. In general, the behavior is permitted as long as it's not disruptive. If one of the group members finds these guidelines to be unfair or inappropriate, then they should attempt to discuss this with either the group or the facilitator and seek out a solution.

Handling difficult behavior between group members is an essential step in keeping the team moving forward and maintaining group satisfaction. Someone who is argumentative may have good advice and feel frustrated, in such a case it is important to hear them out and see if they are making valid points; however, when a member is critical without being constructive then it is important to make clear the negative affect their criticism is having on the team.

Being overly-talkative can help in a team dynamic to get a discussion flowing, but not when they are dominating the discussion. Humor tends to be a good method of redirecting a conversation, but continued behavior should be discussed. The individual will be told that their enthusiasm is appreciated, but it is only fair that each member feels like they have a chance to contribute.

Being unable to reach a consensus can be a major obstacle. If we are unable to agree, we will use multi-round voting and eliminate options until we can come to a decision. The final decision remaining will be the option we decide to go forward with.

Alternatively, making a decision too quickly can result in work being unfinished or messy. A team member that is quicker to a conclusion then the rest of the group should be prepared to articulate how they came to their decision. At any point, if a team member feels a decision is reached too quickly, they are strongly encouraged to speak up. The group will then go back and discuss the issue more in depth.

Having different grade expectations can be detrimental to the team's progress and should be addressed to find a way to maximize the group's satisfaction. Based on discussions held so far, it seems everyone is seeking an A on this and future assignments. However, this might change later in the semester as assignments become more difficult. In this case, it may be necessary to assign work according to each member's expectations and give them a task that would better match their level of enthusiasm. For example, assigning a smaller part of the assignment but still expecting quality work. The remaining work will be evenly distributed amongst the group members who have higher grade expectations. In the event multiple group members do not feel the drive to seek out an A, a compromise will have to be regarding the overall quality of work. This compromise will be heavily dependent on the nature of future assignments.

Problem Statement

With an increase of streaming movies at home with a push of a button, purchasing movies should be the same too. Our product is aimed to make it as simple for customers to purchase a movie ticket online. On a high level, our product is a collection of large databases that will be used to collect information. The information gathered from these databases will be used to keep track of current movie times and available tickets at each movie theater. Our website is for customers on both sides of the movie buying spectrum.

Some people are hardcore movie fans that already know what they want to watch and need a simple way of purchasing movie tickets. Then there are people who go out once in a while, who do not know what is available in theaters and want to see trailers of what is showing, which might lead to ticket sales through us. The problem that our website solves is sometimes moviegoers find themselves in need of a simple way to find and buy tickets to their favorite movies. Our website entertains, informs and guides movie fans with must-see trailers and movie clips.

We strive to make it a fun experience to find and buy tickets for the right movie at the right time. Movie Show-Time Finder is available online and through our mobile web app. We have given a lot of thought about making a showtime finder and think it is worth developing because there is a need for it. In the age we live in, many people who are in their 20s or younger do not watch cable television, so they usually do not know what movies are out in theaters. This project will fix that problem by showcasing all the top films that are being shown in theaters, show what movies will be released and will also allow them to purchase tickets with ease.

Our primary objective with creating this project is to give our customers an alternative to buying movie tickets, while also showcasing all the current movies and upcoming movie releases. Our target customers are those who want a more simplistic way of finding showtimes and purchasing tickets for a movie. There are a couple of competitors in this space already, such as Fandango, Atomticket, and Movietickets. What makes us different from our competitors is our website, which is user friendly and offers a place to watch trailers, find showtimes and purchase tickets. Our system can be built because there are other websites and apps that have already done this, we can use those sites as resources and data for our project.

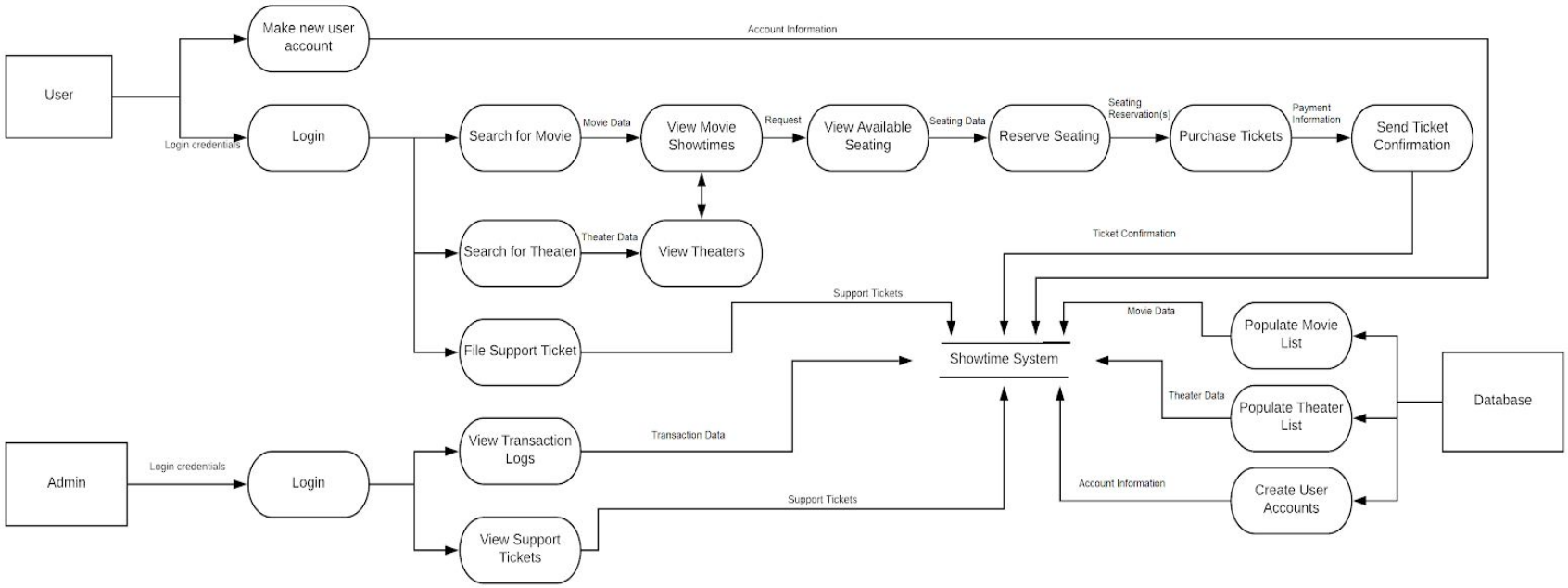
System Requirements

The following data flow diagram shows the architecture of our system. Aside from the admin users, common users will have to make new accounts to login. Each user having their own account allows for easier access to tickets purchased, and each account can hold information on the customer's preferences for theaters and movie types. Users are prohibited from viewing information about other accounts. An employer or admin may view ticket transaction logs and support tickets filed by users. The system's components and processes are listed below.

Processes:
-Login
-Make new user account
-Search for movie
-Search for theater
-File support ticket
-View movie showtimes
-View theaters
-View available seating
-Reserve seating
-Purchase tickets
-Send ticket confirmation
-View transaction logs
-View support tickets
-Populate movie list
-Populate theater list
-Create user account

Data:
-Account information
-Movie information
-Theater information

External Entities:
-User
-Admin
-Database


User
Make new user account
Account Information
Login credentials
Login
Search for Movie
Movie Data
View Movie Showtimes
Request
View Available Seating
Seating Data
Reserve Seating
Seating Reservation(s)
Purchase Tickets
Payment Information
Send Ticket Confirmation
Search for Theater
Theater Data
View Theaters
Ticket Confirmation
Support Tickets
File Support Ticket
Showtime System
Movie Data
Populate Movie List
Theater Data
Populate Theater List
Database
Admin
Login credentials
Login
View Transaction Logs
Transaction Data
Account Information
Create User Accounts
Support Tickets
View Support Tickets