**CPSC 471 - Data Base Management Systems**

**Project Proposal**

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**Introduction**

The problem is that we have a chain of movie theatres that allow customers to purchase tickets, and the theatre needs to be able to track tickets purchased and showings of movies. The solution will be to implement a database that tracks theatre and purchasing information so the theatre chain can ensure there is enough space in theatres, movies are scheduled properly and track how much money it is making on ticket sales. The following sections in this proposal will be the problem definition, proposed solution, motivation, and conclusion.

**Problem Definition**

In the past customers were able to purchase tickets in-person at a kiosk or from an attendant at the actual theatre, but now the chain would like to allow users to purchase tickets online and ahead of time so that they can rest easy knowing a ticket for their desired showing is secured. This problem is interesting because implementing our solution could bring in additional revenue from users who do not necessarily like having to physically go to the theatre and buying tickets sight unseen. It will also improve the overall customer experience and allow more precise tracking of ticket sales. And in the era of where information is power the theatre chain will be better able to track customer viewing habits since all their purchases will be tracked through the account they use to purchase tickets. The problem occurs because there is currently no way for users to know if tickets are available without physically making their way to the theatre, and if they do go to the theatre there is a chance they may not get a ticket to their desired showtime or any ticket at all. This particular problem has already been solved since many other theatre chains implement an almost identical solution to this for their ticket purchasing. They do a similar thing where users can navigate to the theatre’s website, look for currently playing movies, their showtimes, and then purchase tickets beforehand as long as seats are still available. There are similar systems and solutions to the one we are proposing, actually there is a whole market of software that is exclusively dedicated to providing organizations with the ability to sell tickets before events online. Here are few links to such solutions:

<https://www.itarian.com/ticketing-system/online-movie-ticketing-system.php#:~:text=An%20online%20movie%20ticketing%20system,previews%20and%20so%20much%20more>.

<https://info.gartnerdigitalmarkets.com/sensible-cinema-gdm-lp/?directory=ticketing&utm_source=capterra>

These services allow a theatre to download the software and set it up as they require, with all the hard work of building the databases and interface already done. But essentially they do the same thing as we are proposing with the added benefit of allowing the user to also set up the software at self-serve kiosks at the theatre itself. Improvements could include a simpler and more stripped down user interface as some of the products currently available in the market can sometimes make it confusing to purchase tickets online. Another improvement is we could potentially track additional information that might not be kept by other pre-packaged solutions. For example we could keep track of past movies viewed by customers so this information can be used to send targeted ads to customers in hope that they will purchase more tickets and come back to the theatre more often, thus increasing profits. Also if a user creates a profile to purchase tickets through we can encourage them to share information about themselves, such as their favourite movies to personalize their profiles, thus making it appealing for customers to keep visiting and potentially buy

- find out if there’s available ahead of time

- not having to physically visit the theatre beforehand to purchase tickets

REFERENCES:

https://info.gartnerdigitalmarkets.com/sensible-cinema-gdm-lp/?directory=ticketing&utm\_source=capterra

**Proposed Solution**

In this project, we are going to achieve speed and convenience by searching through the majority of movies which are in theaters now, selecting our favourite one and seeing what theater at which time has that movie available. Then we will be able to easily buy the ticket quickly.

The production of this application will be a service which can save customers time, increase their choices and bring more income for the business owner in the movie industry.

The project products are:

* Ticket purchasing which is will be done by first, choosing the move by the customer, and then selecting the theater, show time and seat. After that, we pay the ticket fee and receive our ticket as its final result.
* Canceling ticket is another service (production) of the application which can bring ease for customers to cancel their tickets if their plan has been changed. It will be done by searching for the ticket using the ticket ID, confirming the cancellation and receiving our coupon as a refund at the end.
* The third product (service) of the application which I'm gonna discuss here is the ability to be a subscriber to the website by paying its annual fee to receive newsletters, and the ability to see some movies earlier than public release to buy an early ticket.
* Moreover, coupons can be applied during the purchasing process, which makes them even more attractive to those who have them. As a kind of gift card, coupons can be shared by business owners with customers.
* Also, the business owner can have a privileged account to track all sold tickets and their status. It will bring a clear vision of the business and its trend and all will be done through that admin account which the business owner has access to it.

**Motivation**

Our proposed web application will create a convenient experience for users so that they may see available and upcoming movies at any cinema they like, it also enables them to plan their night without having to leave the comfort of their homes, they can check available seating and even reserve specific seats ahead of time which alleviates the need to either get to the theaters early on a Friday night and/or having to go to the theater earlier in the week to buy tickets for a popular release.

**How is our project unique?**

**Conclusion**

We will build an online ticket-purchasing system where users can view current and upcoming showtimes at a selected theatre. Customers can also see a seat map with currently available/unavailable seating. Users can purchase, exchange or refund tickets

Summarize the project including the problem, motivation, and proposed solution.

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Provide an estimated timeline of project deliverables and important dates

**Important Dates:**

**The intermediate progress report is on February 12**

**The final report is the last day of classes.**

**References**