**Improved Problem Statement**

* **What is your product, on a high level?**

Our product is a movie show time finder named Cinemata. Cinemata can help people find the right time and cinema to watch a movie.

* **Whom is it for?**

For movie lovers, or people who want to check movie times and choose a cinema before buying a movie ticket.

* **What problem does it solve?**

It gathers all cinemas’ movie time schedule in one app, so people don’t have to go to all

cinemas’ website to check their schedule. It also provides seat count at every cinema location, so users will know which cinema is less crowded. Cinemata also provides ticket booking service.

* **What alternatives are available?**

Google, IMDb, Movies by Flixster.

* **Why is this project compelling and worth developing?**

    Watching movie at cinema is a really common activity for people, and Cinemata is here

    to help people make the pre work before movies easier. Cinemata gives people

    more time to do other stuff rather than try to figure out where and when to watch movies.

    Also, by using this application, users will know where the closest location to watch

    the movie is. Users will also learn when future movies are going to be available.

* **Describe the top-level objectives, differentiators, target customers, and scope of product.**

The top-level objectives of Cinemata is to provide cinema show time, movies information, available seat count, and ticket booking service all in one. The differentiators of our products from others will be real time a seat availability service and ticket booking service. The customers that we are targeting will be everyone who wants to watch a movie at the cinema, or movie enthusiasts. The scope of products will be our seat count, and ticket booking service. These are the services that aren't provided by major apps or Google show time finder. Cinemata is not just a regular movie show time finder, but also a product to do all the hassle for you in less than 3 minutes.

* **What are the competitions and what is novel in your approach?**

Google movie show time is our biggest competition. Cinemata provides a seat checker and booking system. This is not provided by Google, and is our biggest advantage against Google Movie show time finder. We also have a promo code system, so users will be able to get discounts on booking tickets. By putting in a code before checkout, users will receive a discount provided by us.

* **Make it clear that the system can be built, making good use of resources and technology.**

We need to gather cinemas’ website datas, and visualize it for users to easily read what time the movie is, and what seats are available for users to choose. HTML or PHP language can be useful for gathering website datas, and we can use python and SQL to visualize the data on our website or application. Also we need to design a booking system for users to book a ticket on Cinemata instead of going to a cinema’s website. We also need to build a login system for users to register on our product, so we can provide better service. We provide several diagrams for people to understand how this system is going to be built, and the class diagram down below is a concept diagram for the entire system. We break different functions or features into different sequence diagrams, so the important features or functions can be displayed individually to make people understand it more.

* **What is interesting about this project from a technical point of view?**

Gathering data from cinema websites is going to be hard and interesting at the same time and it will also be interesting to design the UI layout of our product. The ticket booking system might be the hardest part. Since we've never done this kind of project before, the entire project is going to be very challenging to us. We also need to build a backend data storage to save all the user info so users can login with our login system. The website is only accessible to registered users. Also, using the diagrams we learn from classes in our report is also interesting. By doing this, we can understand how diagrams work better, and actually implement and practice the concept of diagrams in real life.

* **Issue Statement**

The potential issue we are facing right now is a lack of technically proficient team members. The only person who is familiar with MySQL is Ashton Sims, so building a backend data system will be fairly difficult for us. Even though we do have people who know how to write PHP and Html, backend seems to be our biggest potential issue. Also, some of our teammates are currently not working in the same time zone, and this makes online meetings or set up schedules harder than usual. It is also somewhat confusing to implement class materials into our report, especially diagrams parts. The last issue we might encounter in the future will be UI design for our product because we don’t have any person who has a design background or good at designing.

* **Method to fix the issue**

Our method to fix the issue will be office hours with the professor, or try to come up with something with the entire team rather than just one person. We have a discord server for communication, so we will solve the problems together as a team. Plus, some of the crew members are taking database class right now, so it might be a good way to fix the issue by asking the database class professor. For UI design, we can let people test out our product first, then we will know what part we can improve by the feedback we gather after testing.