

PART A - PLANNING

Introduction

My client, **Mickey Mouse**, is the owner of Clubhouse Cinemas, a cinema which shows and displays various films at different dates and times. Currently, at this new cinema theatre, bookings and ticket buying happen at the cinema itself, meaning users are faced with the inconvenience of having to travel to the cinema to confirm a ticket for a film and find a film they want to watch too. Furthermore, Mickey has to manually organise all these bookings on the day. This has resulted in Mickey wanting a custom program that can “organise [his] bookings better”. This was explained to me in our initial conversation on the **7th of June 2021** (see Appendix A.1.1).

Mickey needed the program to be able to run primarily on a Windows Desktop workstation, as this is the operating system used at the cinemas. As discussed with Mickey (see Appendix A.1.2), we decided it would be “ideal if the program consisted of separate user and employee interfaces, so that admin details and user requirements would be held separate from the booking processes”.

I and Mickey decided, the program would be a cinema booking system specific to Clubhouse Cinemas, primarily focussed on an interactive interface controlled by employees in which users can select the date, time, seats and film they want to watch. Our discussions led to our solution:

Solution/Rationale

Clubhouse Cinema Booking - a customer and employee managed booking system which will allow users to select the date, time, seats and film they want to watch and employees to update and manage all bookings in a spreadsheet and films.

User Requirements

On the **7th of June 2021**; I contacted Mickey for the first time (see Appendix A.1.1), where he explained to me his need for a custom program tailored to his cinema. Detailing a program that can “organise [his] bookings better”. We discussed on **8th of June 2021** his requirements further and marked that the program should “consist of separate user and employee interfaces” (see Appendix A.1.2).

Alternatives Discussion

On the **9th of June 2021**, we discussed alternative programs offered to Mickey. The programs we discussed were Showcase Cinemas, Eventbrite and Opentable. Mickey explained to me why each program was insufficient for his requirements (see Appendix A.1.3). Thus we decided that there were no alternatives that could be used.

From our research of alternatives (see Appendix A.2), we identified that the personalisation of our program, tailored to Clubhouse Cinemas made our program unique. The majority of the alternatives were made for specific cinemas or sites whereas Mickey wanted a program that was customized to his company. Furthermore, the alternatives also did not allow you to see both the employee and user interfaces; both of which Mickey wanted for his final program. Mickey had a preference for this so that various aspects of the user interface can be controlled by the employees. These requirements were essential for the program and the proposed alternatives simply did not fulfil them.

Programming Languages

On the **12th of June 2021**, I reached out to Mickey with the proposal of the program to be developed with Java (see Appendix A.1.4). Due to having a business on a smaller scale, using Java proved to be an advantage — with it being a high-level language with platform independence, “if in the event of a scale-up you can use the same program across many computers, meaning it is not restricted to Windows” (see Appendix A.3.1). In addition to this, the use of multiple classes helps with encapsulation which provides an added security benefit for the booking system. Furthermore, I have a vast amount of experience with Java and “it offers various extended libraries such as JavaFX” which was used for development (see Appendix A.3.2).

Success Criteria

The final success criteria has been approved by my client on the **12th of June 2021** (see Appendix A.1.5).

1. Authentication	
1.1	User or Employee will be able to input the username and passwords in the text fields
1.2	Username and Password Verification- the input values are compared against the stored values
1.3	If both username and password correct for the user: 1.3.1 Display a verified message 1.3.2 Transition to the movie screen page
1.4	If both username and password correct for employees: 1.4.1 Display verified message 1.4.2 Transition to employee page (containing options to manage films or bookings)
1.5	If either username and or password incorrect: 1.5.1 Display error message 1.5.2 Prompt user to enter correct details
2. Registration	
2.1	Users will be able to create login details and enter them into the corresponding text fields, they will be saved to the system for later use: 2.1.1 Name (first and last name) 2.1.2 Email 2.1.3 Password
3. Viewing/Selecting Films	
3.1	Users will be able to view all of the available films to watch
3.2	Users will be able to click on a film to see the description of the film, the dates and times it is shown, and the trailer of the film.
3.3	Three clickable buttons will be displayed on the enhanced view screen of the film: 3.3.1 All films - if clicked this takes the user back to the view of all available films (3.1) 3.3.2 Back - if clicked this takes the user back to the previous page 3.3.3 Book now - if clicked this takes the user to the booking page

4. Booking & Tickets	
4.1	<p>(3.3.3) User is taken to the booking page displaying:</p> <p>4.1.1 Number of tickets they want to book for, detailing the different prices too (Adult, Child or Senior)</p> <p>4.1.2 VIP option switch, £2 extra — if selected £2 is added to the running total</p>
4.2	If the user has entered a minimum of 1 ticket they will get the option of selecting their seats
4.3	<p>If the number of seats the user has selected does not correspond with the number of seats to be paid for:</p> <p>4.3.1 Display error message</p> <p>4.3.2 Prompt user to select the correct number of seats</p>
4.4	<p>If the number of seats the user has selected corresponds with the number of seats to be paid for:</p> <p>4.4.1 Allow user to click the pay button</p> <p>4.4.2 Transition user to pay page</p>
4.5	Give user payment method of cash
4.6	<p>When the user selects cash:</p> <p>4.6.1 Display booking confirmation screen</p> <p>4.6.2 Email booking confirmation to the user containing printable pdf document</p> <p>4.6.3 Add details to booking file</p>
4.7	<p>If the user doesn't want to go through with the booking:</p> <p>4.7.1 Allow users to cancel the booking before they have paid</p>
5. Employee Management System	
5.1	<p>(1.4) If manage films is selected:</p> <p>5.1.1 Allow the employee to add or delete films from the film view</p>
5.2	<p>If the employee chooses to add a film, the following sections must be completed:</p> <p>5.2.1 Image, trailer, title, description, date and time upload</p> <p>5.2.1.1 If a section is not completed:</p> <p>5.2.1.1a Display error message</p> <p>5.2.1.1b Prompt employee to complete correct fields</p> <p>5.2.2 Display added message</p>
5.3	If employees choose to delete a film:

	5.3.1 Remove film from employee page and user page 5.3.2 Display deleted message
5.4	(1.4) If manage bookings are selected: 5.4.1 Allow the employee to delete old bookings from the booking file 5.4.2 Allow the employee to export the booking file