De La Salle University-Manila
Gokongwei College of Engineering
Industrial and Systems Engineering Department

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Event Ticket Reservation System

An event ticket reservation system that helps users reserve tickets and view a seating chart

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I. Introduction

C is a programming language that utilizes step-by-step procedures to develop various systems (C Language Introduction, 2023). It is an environment with excellent performance that is frequently used in data analysis, scientific computing, and engineering. Moreover, C language programming is widely used by the majority and other languages take and use features from this language. It also serves as the foundation for all other programming languages and is considered the "mother of programming" (Lemonaki, 2023; Ravikiran, 2023). C language is an excellent tool for creating intricate systems that involve numerical calculations and data visualization, which makes it a perfect fit for an event ticket reservation system. The goal of the C programming-based event ticket reservation system is to make the process of purchasing tickets for different events more efficient.

A. Objective

Create a C programming language online event ticket reservation system that is effective and easy to use so that users can check seating charts, make reservations, and track their progress. To guarantee a smooth and fulfilling user experience, the system should place a high priority on accuracy, efficiency, user-friendliness, error handling, scalability, dependability, security, performance, usability, and maintainability.

B. Functionalities

1. Construct and update the seating chart of the event
2. Gather customer information
3. Display selection of seating chart
4. Updating of the seating chart availability
5. Confirm reservation

C. Scope and Limitation

1. The system will incorporate only the process of reserving a ticket and seat.
2. The system will not include price and cost parameters

II. Methodology

A. Flowchart

1. Construct and update the seating chart of the event
2. Gather customer information
3. Display selection of seating chart
4. Updating of the seating chart availability

5. Confirm reservation

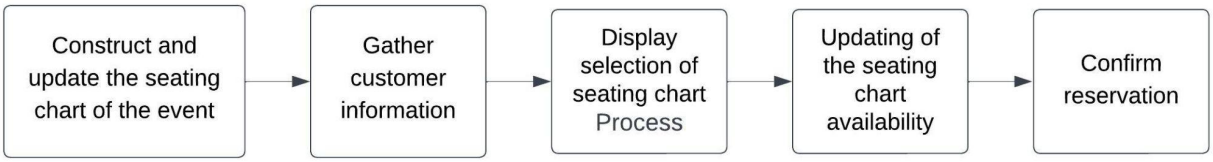

Figure 1. Flowchart of Current System

III. Deliverables

Figure 2 shows the Gantt chart of deliverables for each component of the system. The estimated duration to finish the task or component is an estimated time only. They may be delayed due to busy schedules.

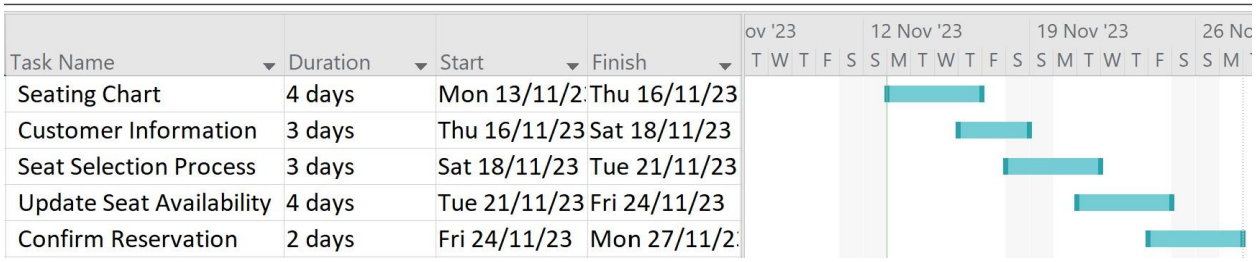

Figure 2. Gantt Chart of Deliverables

A. Seating Chart Code Setup
   1. Design
   2. Capacity

B. Customer Information Gathering Code Setup
   1. Name
   2. Age
   3. Gender

C. Selection of Seat Code Setup
   1. Display of Updated Availability of Seating Chart
   2. Seat Row and Number

D. Update Seat Availability

1. Updating of available or unavailable seats

E. Confirmation of Reservation
    1. Display to confirm seating reservation

IV. Evaluation

A. Accuracy

1. Present the correct availability of seats
2. Update information on seats
3. Correct information about the customer

B. Efficiency

1. Total time of the system to run
2. Total time of user to reserve

V. Conclusion

C programming language is flexible and it possesses multiple features that can develop systems and softwares that are user-friendly. Due to these advantages, this programming language will be used to create an easy-to-use event ticketing system that will allow the end user to input their customer information and reserve their selected seats. The accuracy of the system will be determined by ensuring that only the correct information is displayed, and the efficiency will be assessed based on the run time of the system and the user time.

VI. References

C Language Introduction. (2023, November 8). https://www.geeksforgeeks.org/c-language-introduction/

Lemonaki, D. (2023, August 29). The C programming handbook for beginners. https://www.freecodecamp.org/news/the-c-programming-handbook-for-beginners/#chapter-1

Ravikiran, A. (2023, May 17). Use of C language: Everything you need to know. https://www.simplilearn.com/tutorials/c-tutorial/use-of-c-language#:~:text=C%20programming%20language%20is%20a,foundation%20in%20the%20process%20of