**MOVIE TICKET**

**RESERVATION**

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**CHAPTER 1**

**THE PROJECT AND ITS BACKGROUND**

**Introduction**

A movie, also known as a film or motion picture, is a form of visual storytelling typically created for entertainment purposes. Movies can encompass a wide range of genres, including drama, comedy, action, horror, science fiction, and documentary. They are often produced by filmmakers, directors, producers, writers, actors, and various other professionals who collaborate to bring the story to life. Movies are a popular form of entertainment worldwide, enjoyed by audiences of all ages and cultures.

The Development of Cinematographic Devices. Building upon the principles of photography and motion studies, inventors and innovators began to develop devices capable of recording and projecting moving images. Key figures in this process include Louis Le Prince, who created the earliest known motion picture films in the 1880s, and Thomas Edison and his assistant William Kennedy Laurie Dickson, who developed the Kinescope in the 1890s. First Public Film Screenings, the Lumière Brothers, Auguste and Louis Lumière, are often credited with organizing the first public screening of projected motion pictures. Their Cinematography, a combination camera, and projector, premiered in Paris in 1895, marking the birth of cinema as a form of public entertainment.

In the realm of entertainment, the tradition of reserving movie tickets has long been synonymous with anticipation and excitement. From the early days of queuing up at the box office to the advent of telephone reservations, this age-old practice has evolved alongside advancements in technology and consumer preferences. Today, as we navigate a digital landscape characterized by convenience and accessibility, traditional movie reservation methods face new challenges and opportunities. This brief explores the evolution of traditional movie reservation processes and the enduring significance they hold in an era of digital transformation.

In the ever-evolving landscape of entertainment, technology has emerged as a transformative force, reshaping traditional practices and revolutionizing industries. One such area profoundly impacted by technological advancements is the process of ticket reservation for movies. Gone are the days of standing in long queues or making tedious phone calls to secure a seat. In this brief exploration, we delve into how technology has not only simplified but also enhanced the ticket reservation experience, making it more convenient, efficient, and accessible for moviegoers worldwide.

And now the era of online movie ticket reservation, where the click of a button grants access to the cinematic world. In recent years, the advent of digital platforms has revolutionized the way audiences interact with theaters, offering unprecedented convenience and flexibility in reserving movie tickets. This brief journey explores the evolution of online movie ticket reservation, tracing its origins, examining its impact on the industry, and highlighting the benefits it brings to moviegoers in today's fast-paced digital age.

**REPUBLIC ACT NO. 10088** **Section 3. AN ACT TO PROHIBIT AND PENALIZE THE UNAUTHORIZED USE, POSSESSION AND/OR CONTROL OF AUDIOVISUAL RECORDING DEVICES FOR THE UNAUTHORIZED RECORDING OF CINEMATOGRAPHIC FILMS AND OTHER AUDIOVISUAL WORKS AND/OR THEIR SOUNDTRACKS IN AN EXHIBITION FACILITY, PROVIDING PENALTIES THEREFOR AND FOR OTHER PURPOSES.**

This act says that illegal filming or recording of movies in cinemas is prohibited to protect the rights of copyright holders, safeguard the economic interests of the film industry, maintain quality standards for movie viewing experiences, and uphold the rule of law.

The project developer work begins with the recognition of the growing need for efficient, reliable, and user-friendly ticket reservation system. The system is developed to simplify the ticket reservation process, from the traditional ticket reservation to modern ticket reservation with the help of technology.

**Project Context**

This system, "Movie Ticket Reservation System," is a modern and innovative solution to the challenges faced by cinema organizers. Traditional ticket reservation methods are often time-consuming, inefficient, and prone to errors. The project system aims to address these issues by streamlining the ticket reservation process and enhancing the moviegoer experience. To develop the system, project developers require knowledge of ticket reservation and movie management, as well as expertise in programming software, APIs, and hardware. Project developers also needed to ensure user information with relevant laws and regulations, such as the Data Privacy Act of 2012.

Therefore, the system provides a comprehensive and efficient event management solution that enhances the moviegoer experience and enables cinema organizers to make data-driven decisions. By incorporating modern technology and innovative features, project developers aim to revolutionize the movie ticket reservation industry and provide a valuable service to the customer.

The utilization of Visual Basic 2022 (VB.NET) programming language for the core development of the system highlights the project's commitment to robust, user-friendly, and widely supported software solutions. VB.NET's versatility and ease of integration provide a stable foundation for the system's functionality, ensuring a smooth user experience for both movie organizers and cinema customer. An integrated system for a movie ticket reservation system, which includes both a web application (web app) and a website, involves several components and technologies working together to provide a seamless user experience. Here's an overview of the technical aspects:

The website serves as the public-facing platform where users can access information about movies, theaters, Showtime. It's developed using frontend technologies such as HTML, CSS, and JavaScript. The web application complements the website by offering interactive features for ticket booking, seat selection, and payment processing. It's developed with Visual Basic 2022 (VB.NET) for dynamic and responsive user interfaces. The system requires a database to store information about movies, theaters, Showtime, user profiles, bookings, and transactions. Popular choices for databases include relational databases like MySQL connector and XAMPP. By integrating these technical components effectively, the integrated system of a web app and website for a movie ticket reservation system can deliver a robust, secure, and user-friendly platform for users to book tickets and enjoy a seamless movie going experience.

**Purpose and description**

A movie ticketing reservation system serves as a platform for customers to conveniently reserve tickets for movies in advance. Its purpose is to streamline theticket reservationprocess, enhancecustomer experience, and optimize theater operations. The primary purpose of a movie ticketing reservation system is to offer convenience to customers. Instead of physically going to the theater to purchase tickets, customers can use the system to reserve tickets online. The system allows customers to have advance tickets reservation well in advance of the movie's Showtime. Seat Selection is also a main features of the system where Customers can view the seating layout of the theater and choose their preferred seats during the booking process. This ensures that they can select seats according to their preferences, such as proximity to the screen or aisle, and ensures a better viewing experience.

This system supports various payment methods, including credit/debit cards, mobile wallets,and online payment gateways, making it convenient for customers to complete their transactions securely. After reserving tickets, customers receive a reservation confirmation via email, along with digital tickets that they can present at the theater for entry. This reduces the risk of loss or damage. This system also maintains customer profiles and booking histories, allowing theaters to provide personalized recommendations, promotions, and loyalty programs to enhance customer engagement and retention.

**OBJECTIVES**

The project developers intend to develop Movie that will take a major role for ticket reservation. Specifically, the project developers aim to:

1. develop a system that will enhance the experience and expectation of Seamless ticket reservation that is normally required more time to book and with the use of Desktop Applications.
2. develop a system that will present the available movie in cinema, using the Website.
3. develop a system that solve the challenges people face in traditional reserving movie ticket.
4. develop a system that enable the user to also reserved food to enjoy while watching movies.
5. develop a system that enable the admin to update the showing movies in the website.

**Scope and Delimitation**

The system aims to improve the moviegoer experience in reserving ticket for the movie in cinema allowing customers to browse available movies, view Showtime, select preferred seats, and book tickets online or through desktop apps. The system serves a specific geographic region or market, offering access to movies and ShowTime available within that area. The system provides access to a range of movies that are currently playing or scheduled to be screened at the participating cinema, subject to licensing agreements and partnerships with distributors. The system is accessible to users via various devices and platforms, including desktop computers, laptops, smartphones, and tablets, with support for different operating systems and browsers.

However, inherent in any technological endeavor, the system encounters limitations Such as: **limited ticket availability,** While the system facilitates advance booking of tickets, the availability of tickets is subject to factors such as seating capacity, demand for specific Showtime, and restrictions imposed by the theater or distributor. Also the system may have technical limitations related to its performance, scalability, and compatibility with different devices and platforms. These constraints can impact the user experience and functionality of the system. And last, the system must adhere to strict security and privacy standards to protect customer data and payment information. However, it may still be vulnerable to cyber security threats and breaches, which can compromise the integrity and trustworthiness of the system.

**TECHNICAL BACKGROUND**

The project developers aimed to develop a system for movie ticket reservation, where the user can reserve a ticket through Desktop application and check latest movie showing in the website.

The Entity Relationship Diagram illustrates the connections between the entities within the developed system, showcasing their inter dependencies and relationships. The Movie Ticket Reservation System entity-relationship diagram comprises three (3) major entities. The User entity, Admin entity, and Ticket entity. And another 2 entity for the subsystem the Food entity and Movie Entity. Under the User entity are seven (7) attributes, User\_Id server as primary key, name, email, password, age, birthday, and username. On the other hand, the Admin entity has five (5) attributes, admin\_id as primary key, name, email, password, and username. The last entity is the Ticket entity that has seven (7) attributes Ticket\_id as primary key, movie\_id, food\_id, date & time, user\_id, movie title, seat number. And cinema number. And for the entities for the subsystem, Food Entity has five (5) attributes food\_id as primary key, quantity, date of pickup, date of reservation, and availability. The last one is Movie entity that has six (6) attributes movie\_id as primary key, title, and genre, time of screening, screening date, availability, and cinema number.

In the flowchart of the prototype, designs and illustrations are shown in the process of how the system works. The starting part is where the customer is able to view the available movies in cinema in the website and if they want to reserve one they can click a button that can lead then to the reservation form where they can make a reservation for the movie that they like. But to make a reservation the customer need to login their account but if they are not registered they need to register first to login. After the login they can start filling up the form to make a reservation, they need to select their ideal movie, seat location, time and date of screening and if ever they want a food to enjoy while watching they can order food through the subsystem that is connected in the main system. After making reservation the customer need to wait to the confirmation of the admin to their reservation. If the admin approve their reservation the customer will received a receipt and the ticket through email. But if the customer failed to pay the exact amount that system tell them the reservation can’t be process. And for the cancelation of the reservation the customer can only cancel their reservation two (2) hours before the movie if the cancelation is made within two (2) hours before the movie, the reservation can’t be processed and the paid amount is not refundable. After receiving the ticket through email, with this digital tickets they can present at the theater for entry.

**Definition of Terms**

**Cinematographic Devices:** A tool or technique that is used in the creation of motion pictures.

**Photography:** A process of taking photographs.

**Kinescope:** An early television that can display moving pictures.

**Public screening:** An event that will perform a public execution of films or public showing.

**Data Privacy:** A protection of individuals’ personal information that has been gathered by the system.

**Breaches:** An unauthorized access to system.

**Visual Basic:** An object-oriented language and development environment that can be used to create GUI desktop application.

**Web Application:** A software that can be access through the web browser.

Integrated system: A system that possess different kind of function that works together to produce an effective system.

**HTML:**  A mark-up language that will be used to create structures in developing a front-end in website.

**CSS:** A stylesheet that will be use to provide a better design for the website.

**JavaScript:** A scripting language to help with the function of the website.

**XAMPP:** An open-source cross-platform web server.

**MySQL:** An open-source relational database management system.

**Database:** A storage of data and information.

**Entity**: A thing that exist.

**Flowchart:** A chart that could help programmers to make a map about the flow of the programs.

**Prototype:** A technique to make an effective system.

**Subsystem:** A self-contained system within a larger system.

**Theater:** A building or area that perform a movies on live.

**Innovators:** An individual that introduce a new ideas and their findings.

**Seamless:** A smooth process.

**Public-facing:** A system that is accessible to anyone.

**Refundable:** A payment that can be returned.

**Moviegoer:** A subject that loves to watch movie in cinema and the target user of the system.

**Chapter 2**

**REVIEW OF RELATED LITERATURE, STUDIES, AND SYSTEMS**

**Review of Related Literature**

In this chapter, various local and foreign literature, studies, and systems were reviewed by the researcher to gain understanding of existing researches and other academic works relevant to the area of study, and thus, present a broader knowledge to the academic community and at the same time, help the researcher intensify his knowledge in the field.

According to the study entitled “Application for Booking Movie Tickets Online” by Bui Khoa (2022), the development of technology these days, people can book tickets for watching movies easily without going to the theatre to purchase them. With an application, it is easier and faster for customers to buy tickets online. An online booking system has benefits for both customers and theatre. In addition, the website will be a good place to increase the visibility and availability of the theatre tickets, which improves customer satisfaction. The goal of the system was to implement an application for booking movie tickets online and the ticket booking application is an internet-based application, which means that the application can be accessed from anywhere on the network. This online ticket reservation system provides a cinema website that is accessible to all internet users. Users are required to log into the system and process checkout after booking the ticket is done. The study of Bui Khoa (2022) was implementing a similar feature of “Movie Ticket Reservation System” that is planned to be develop by the developers, especially the feature which the users of the system is able to choose their preferred number of seats, according to the study of Bui Khoa (2022) their system was also implementing the availability of user in picking their preferred number of seats. these two studies have a huge similarity of achieving the goal where the users is able to have satisfaction in the said system. (SALVA)

According to the study entitled “A Cinema – Online Movie Ticketing Booking System” by Singh, A. N., Hegde, A., Abhilash, R., Kumar, A., & Priyadarshini, R. (2023). the design and development of an online movie ticket booking system that provides consumers with a practical and easy-to-use platform for ticket purchases is presented in this study. The system offers the ability to choose a movie, reserve a seat, handle secure payments, confirm tickets, reschedule, and transfer selections. In addition, it uses data encryption and user identification as well as recommendation algorithms to provide tailored movie recommendations. The system, which is implemented using a variety of computer languages and frameworks, attempts to improve the entire experience for customers by removing lengthy lines and offering a safe, effective online platform for reserving movie tickets. (TORILLA)

According to the study entitled “A New approach for online movie ticket booking system” by Arjun Kumar Mishra1, Shashank Gupta2, Rajeev Kumar3 (2022), The Online Movie Ticket Booking System signifies a remarkable evolution in how audiences engage with cinemas. By offering a hassle-free platform devoid of user logins, it streamlines the ticket booking process, enabling customers to swiftly reserve seats and select preferred movie titles. This user-centric approach enhances convenience, catering to the diverse needs of modern moviegoers who seek seamless experiences. With just a few clicks, users can input their details, specify seat preferences, and complete the booking, ensuring a smooth and efficient transaction process. This simplicity and accessibility redefine the movie ticket booking experience, transforming it into a seamless and enjoyable activity for audiences worldwide.

Moreover, the system's administrative functionalities provide theater owners with valuable insights and control over operations. From managing ticket prices to viewing reservations and analyzing booking trends, administrators can make informed decisions to optimize theater performance. The ability to track reservation data through interactive graphs facilitates strategic planning and enables theaters to adapt to changing market demands effectively. By leveraging technology to streamline administrative tasks, the system empowers theaters to enhance efficiency and provide a more personalized experience for their patrons, ultimately driving customer satisfaction and loyalty.

Beyond its practical utility, the Online Movie Ticket Booking System reflects the symbiotic relationship between entertainment and technology in the digital age. By embracing online platforms, cinemas bridge the gap between audiences and movie experiences, fostering connectivity and engagement. This shift not only acknowledges the busy lifestyles of modern audiences but also underscores the importance of adaptability and innovation in the entertainment industry. As theaters continue to embrace digital solutions, the system's role in revolutionizing the movie ticket booking process becomes increasingly evident, marking a pivotal moment in the ongoing evolution of cinema culture. (GAGBO)

According to the study entitled “Online Movie Ticket booking System” by Nur-E-Sava Tazin, (2020) Online movie ticket booking system is a web-based ticket booking system. Now a day’s people are very much dependent on internet. They like to do every day to day life chores or necessities in online because it is more easier and hassle free. If people want to watch any movie they will book the ticket in online. They don’t need to go to theatre to buy or there is no hassle that they will get the ticket or not. So thus, it will be tension free. There will be no hassle that they will get the desired ticket or not. So, it is more convenient for people. Every person wants to get their work done easily and without any hassle that is why this online movie ticket booking system is very much significant thing in our day to day life. Without this online thing you have to go through all the hassle and end of the time you are not sure that you will get the ticket or not. So, in recreation or entertainment time you have to worry where by this online system you don’t have to be worried. You just need to book the ticket online even by sitting at your home or office or from anywhere. Yes, that is so easy. So, this online movie ticket booking system will make your recreation time smoother (CAMAY)

According to the study entitled “Implementation of an efficient web-based movie ticket purchasing system in the context of Bangladesh” by Islam, G. Z., Zinnia, I. J., Hossain, M. F., Rahman, M. R., Juman, A. U., & Emran, A. B. (2020). The development of a web-based "Movie Ticket Purchase System" in Bangladesh is presented in the study. Upon registration and login, users can purchase tickets from a variety of theaters. The software development life cycle is adhered to by the system, which is constructed using PHP, JavaScript, HTML, and CSS. Three panels are included for users, theater assistants, and administrators. Assistant is in charge of tasks linked to movies, and Admin oversees cinemas. It's the first user-friendly portal specifically designed for buying tickets from different theaters in Bangladesh. Theater owners can sign up to use the system for ticket sales even if they don't have digital platforms. (PAGASIAN)

According to the study entitled “Design and Implementation of a Movie Reservation System” by Agbaegbu, J., Victor, C. C., Oluwafemi, A., & Tuma, N. E. (2019). This research introduces an online movie reservation system tailored for cinema houses primarily in Nigeria. The system's accessibility and convenience empower customers to effortlessly book and reserve tickets and seats, enabling them to enjoy movies at their preferred time and from any location worldwide. Moreover, the full implementation of this research using a software approach has the potential to significantly enhance the booking systems of Nigerian cinemas. Additionally, it could extend its benefits to other domains where reservations or bookings are commonplace. Furthermore, this innovation could potentially revitalize the declining trend of movie attendance in cinemas. Simultaneously, it aids in reducing operational costs and the need for additional manpower to manage report sorting. This reservation system represents a practical real-time management solution that can be feasibly implemented. Nonetheless, it is important to acknowledge certain assumptions and limitations inherent in its design. These constraints can be overcome, and further research can explore the integration of new applications to enhance its functionality and adaptability to evolving needs. The research highlights the importance of modernizing movie reservation systems to enhance customer experience, streamline operations, and adapt to advancements in technology. It also emphasizes the role of online platforms in facilitating ticket reservations and improving accessibility for customers. (CALAWOD)

Bui Khoa (2022). Application for Booking Movie Tickets Online. *Journal of Vaasan Ammattikorkeakoulu University of Applied Science*, 2008:9-16, 11-38, Retrieve from https://www.theseus.fi/bitstream/handle/10024/750394/FinalThesis\_Khoa\_e1800931.pdf? sequence=2&isAllowed=y

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[IJCT-V6I4P5.pdf (ijctjournal.org)](http://www.ijctjournal.org/Volume6/Issue4/IJCT-V6I4P5.pdf)

**Synthesis of the Review**

The “Movie Ticketing Reservation System" is developed to address the challenges encountered in the traditional Ticket Reservation. Literature and studies relevant to Ticket Reservation and its technology systems, particularly in the Philippines, underscore the influence of technology in enhancing the success rate and efficiency of ticket reservation. The adoption and implementation of event management systems in the country vary, yet the impact is notable across different platforms. Technology utilization in ticketing, registration, and attendee management has significantly influenced cinema attendance, movie goer’s satisfaction, and overall cinema watching outcomes, thereby affirming the indispensability of a Movie Ticket Reservation. However, the benefits come with limitations and challenges which require insightful approaches for improvement.

The study of “An Investigation into Web Services: A case of an Online Reservation System” A research study by Derick Wasonga Jabuto Odemba (2019) The internet has changed how businesses operate, with more of them moving online to reach more people. This shift requires systems to work together smoothly, which is where web services come in. They make it easier for different applications to communicate, no matter where they are or what tools they use. This is important because it ensures that when you book a ticket online, for example, all the systems involved understand each other. Web services also use something called ontologies, which are like dictionaries that make sure everyone is using the same language. This helps avoid confusion when systems talk to each other. But even though web services are helpful, we need to make sure they're safe from hackers. This is an ongoing concern that needs attention. Looking ahead, the future of web services looks bright. More businesses are using them, and they're getting better all the time. In the hospitality industry, for instance, web services can make it easier for customers to book tickets online, providing a smoother experience for everyone involved. In summary, web services are essential for connecting systems online and improving the way businesses operate. They simplify communication, ensure clarity, and offer potential for enhancing customer experiences, especially in industries like hospitality.

**Chapter 3**

**EVALUATION, DESIGN, AND FRAMEWORK**

This chapter deals with the presentation of the discussion of expected and justification, operational and conceptual framework used, the software, hardware, client requirements as well as the definition of terms.

**Discussion of the Expected Output and Justification**

In the development of the Movie Ticket Reservation project, the expected output encompasses several key components aimed at delivering a seamless and user-friendly experience for moviegoers. This chapter discusses the anticipated outcomes of the project and justifies their relevance within the context of the documentation.

This system User Interface (UI) will provide an intuitive and visually appealing user interface allowing users to navigate through the reservation process effortlessly. A well-designed UI is crucial for enhancing user experience and increasing user engagement. It should be responsive, accessible, and aesthetically pleasing to attract and retain users. This Reservation System also provides a robust reservation system that enables users to select their preferred movie, showtime, and seating arrangement. The core functionality of the project revolves around allowing users to reserve movie tickets conveniently. A reliable reservation system ensures accurate bookings and minimizes the risk of overbooking or errors.

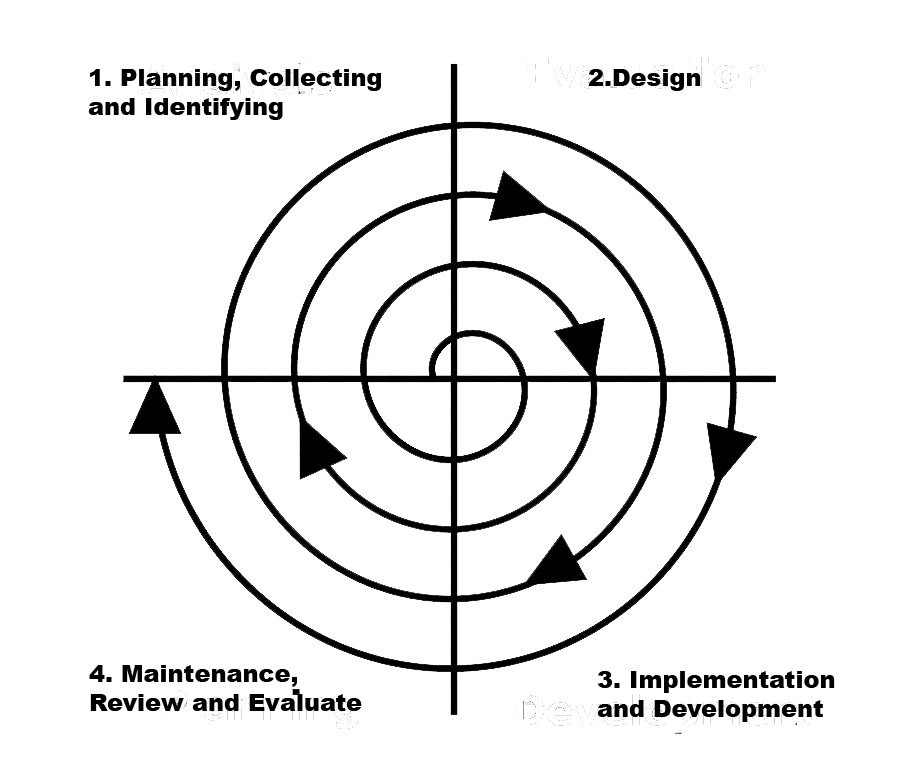
In terms of Seat Selection Feature this system will provide an interactive seat selection feature that allows users to choose their seats from a graphical representation of the theater layout. Providing users with the ability to select their seats gives them a sense of control and enhances their overall movie-going experience. It also prevents conflicts arising from double bookings and ensures efficient seat utilization. Also, the Time Slot Selection where calendar or dropdown menu for users to choose their preferred showtime from available time slots. Offering flexibility in choosing showtimes accommodates users with varying schedules and preferences. It also helps in managing crowd flow and optimizing theater occupancy during different times of the day.

In terms Food and Beverage Ordering Integration of a food and beverage ordering system allowing users to pre-order snacks and drinks. Enhancing the movie-watching experience involves catering to the users' needs beyond just tickets. Offering food and beverage options adds convenience and increases revenue opportunities for the theater. For the Payment Gateway Integration Seamless integration of a secure payment gateway to facilitate online transactions for ticket and food purchases. A secure and reliable payment gateway is essential for processing transactions securely and building trust with users. It ensures that financial information remains protected throughout the reservation process.

And the Confirmation and Notification System Instant confirmation of reservations via email, along with timely reminders and notifications about upcoming movie screenings. Keeping users informed about their reservations and upcoming events enhances their overall experience and reduces the likelihood of missed bookings. It also helps in maintaining communication with users and fostering customer loyalty. For the Admin Panel An admin panel for theater staff to manage movie listings, seat availability, reservations, and customer inquiries. The admin panel empowers theater management to oversee operations efficiently, monitor reservation activity, and address any issues promptly. It streamlines administrative tasks and facilitates better decision-making to ensure smooth functioning of the reservation system.

By achieving these expected outputs, the Movie Ticket Reservation project aims to deliver a comprehensive solution that caters to the needs of both users and theater management. Each component plays a crucial role in creating a seamless and enjoyable movie-going experience while optimizing operational efficiency and revenue generation for the theater.

**Operational Framework**



**Figure 1**

**An Operational Framework illustrating the development of the Movie Ticket Reservation, using the Spiral Model**

The project developers, have employed the spiral model for the testing and maintenance of Movie Ticketing System. This process is iterative and allows us to revisit different stages of the development whenever a bug or an error occurs, ensuring that continually refine and improve the system. This cyclical process will persist until the project developers are confident that the system is fully operational, robust, and free from bugs.

In the first phase, project developers collect all the necessary information for the creation of the Movie ticketing system. Project developers lay out a plan detailing how the process will unfold, starting from this initial phase right through to the final delivery. Project developers plan also includes the collection of requirements for the system, incorporating all essential features, functionalities, and performance criteria. This step is crucial in ensuring that the system aligns with the needs of movie organizers and movie goers.

During the second phase, based on the requirements collected, project developers proceed to the design phase where project developers create the blueprints for Movie Ticket Reservation App and Website. This involves crafting a user-friendly Graphic User Interface (GUI) and planning the integration of functionalities such as ticket reservation, food ordering, and movie management for the admin. This phase allows us to visualize how the different components of the system will come together to offer a ticket reservation system.

In the third phase, the project developers, start coding and implementing the system as per the design specifications. Project developers integrate and configure all the previously defined functionalities and begin in-depth testing. This phase allows us to identify and fix any bugs or issues that might arise, ensuring that the system is robust, functional, and ready to serve users effectively.

In the fourth and final phase, the project developers move into the maintenance stage of the system. A thoroughly test the system to identify any possible errors or bugs that might have slipped through the previous phases. Any issues identified are promptly fixed until project developers are confident that the system is fully functional and meets the high standards have set. This phase ensures that the Movie Ticket Reservation System is a reliable, effective, and comprehensive solution for ticket reservation.

**Conceptual Framework**

**FEEDBACK**

**INPUT**

**PROCESS**

**Developed Movie Ticket Reservation System**

**• PLANNING**

**• ANLYSIS**

**• DESIGNING**

**• IMPLEMENTING**

**• TESTING**

**• DEPLOYMENT**

**• MAINTENACE**

• **Desktop App Development:** Visual Studio 2022 (VB.net), Mysql connector, Xampp.

• **Website Development:** Visual Studio Code, HTML, CSS, JavaScript

• **System development hardware**: 8GB RAM, 256GB SSD, Ryzen 5 5600G processor

**OUTPUT**

**Figure 2**

**A Conceptual Framework Showing the Development of Movie Ticket Reservation System**

The conceptual framework for the development of Movie Ticket Reservation System encompasses input, process, and output. The initial phase, the input, involves a set of development tools and system specifications necessary for system creation. This includes development environments like Visual Studio 2020 (VB.net) for the desktop application, Visual Studio Code with HTML, CSS, and JavaScript for the website, and the system will develop on a device with 8GB RAM, 256GB SSD, and a Ryzen 5 5600G processor.

The second phase, the process, initiates with the formulation of the system proposal. Now then moves into gathering and analyzing the requirements for movie ticket reservation. With the requirements clearly defined, the team proceeds to design and develop the system using the aforementioned tools. Following the development, the system undergoes a series of tests and evaluations to ensure the functions as expected. The final step in this phase is the maintenance of the system through user feedback, which helps identify any areas for improvement.

Upon successful completion of the process phase, the output, or end result, is Developed Movie Ticket Reservation System that enhances ticket reservation, and offers a modern and quality experience to users. The feedback phase occurs post output, where the developers refine and resolve any potential issues that may arise from the system's implementation. This constant loop of feedback helps maintain the system's functionality and keeps aligned with user needs and expectations.

**Requirement Specifications**

The Movie ticket reservation system requires a system that is accessible for both the user and the developer. This system will greatly assist the user’s needs and wants in once in a life time event, the system has all the information, details by details because the clients are the one who will choose the movie, seats, ideal time of screening and etc. By providing easy access and user-friendly interfaces, users can navigate the system effortlessly, performing necessary task and accessing relevant data. Organizers will benefit from the system that can view and update their personal information and the bookings client has done.

The system requires the Windows 10 operating system or a higher version for the desktop application. To develop the software, an integrated development environment (IDE) such as Visual Studio 2022 and above is necessary.

The desktop application requires a minimum 3.0 GHz processor or faster, along with 8 GB of RAM (64-bit) and at least 64 GB of available storage disk space. These specifications ensure that the application runs smoothly and can handle the necessary processing tasks.

For web development, an appropriate IDE like VS Code, or any other suitable option can be used, along with programming languages such as HTML, CSS, and JS. The database utilized by the system is MySQL connector and Xampp, providing storage and retrieval capabilities for the application.