Bus Ticket Booking System Conceptual Framework

This post will guide you on how to create a conceptual framework for the project Bus Ticket Booking System in Laravel using input, process, and output (IPO) model.

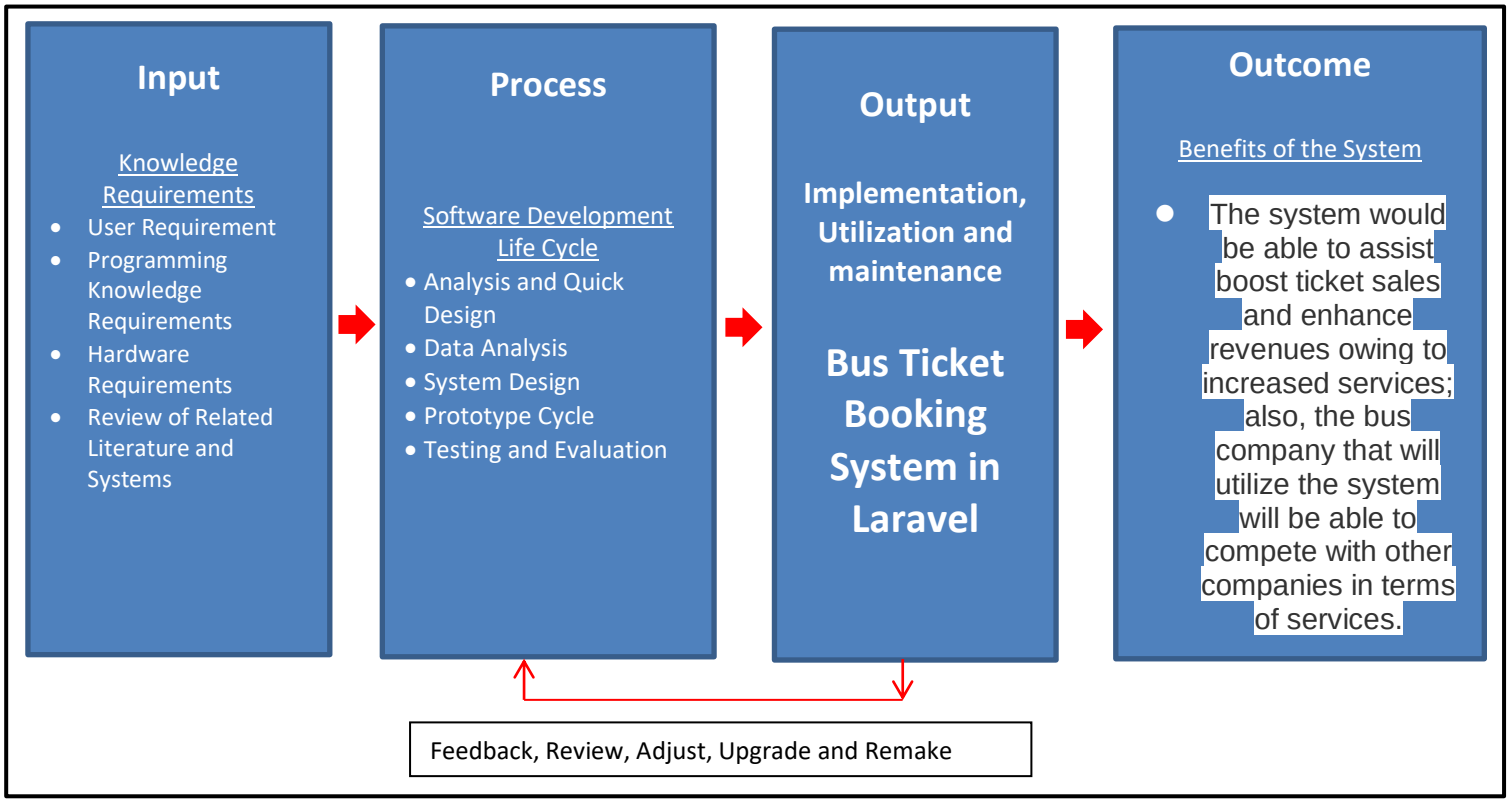
About the Project

The researchers offered a capstone project titled “Bus Ticket Booking System in Laravel” in this example. This is to assist commuters in reserving a seat or bus alone on the bus via the online website; it will also aid management in marketing innovation to their clients. People used to schedule services and appointments manually, which led to overbooking, forgetting to cancel, and neglecting to record the booking and appointment. This solution was designed to overcome the challenges produced by manual help while booking a bus ticket. To make purchasing and scheduling bus tickets considerably easier. The Bus Ticket Purchasing System in Laravel project is being created to provide a better solution to all existing issues generated by the traditional method of booking tickets in bus servicing operations. The system’s goal is to provide an online website system for reserving a bus ticket that can manage bookings/appointments for bus firms and businesses.

Objectives of the Study

1. The system’s goal is to produce a time-saving, convenient, and efficient system.
2. To identify the issues that passengers and bus companies have encountered.
3. To define a mechanism for informing the status of a booked reservation.
4. The project’s purpose is to develop a system that both staff and customers can use.
5. To address the aforementioned issues with ticket booking in bus services.

Conceptual Framework Diagram



The image above is the conceptual framework of the project entitled **Bus Ticket Booking in Laravel**. It is based on IPO model or also known as the input, process and output model.

What is Conceptual Framework?

A conceptual framework is a theoretical structure used to guide and inform research. It is a visual representation of the key concepts and relationships that are central to the study, and is used to organize and guide the research process. In the context of a bus ticket booking system, a conceptual framework can be used to guide the development and design of the system by providing a clear understanding of the key concepts and relationships that are relevant to the system's functionality and usability.

The conceptual framework can be used to guide the development of the bus ticket booking system by identifying the key components that are necessary for the system to function effectively. It can also be used to identify any gaps in the system's functionality and to identify areas where further research is needed. Additionally, it can be used to evaluate the effectiveness of the system by providing a clear understanding of the key concepts and relationships that are central to its functionality and usability.

Input

The input phase or the knowledge requirement stage consists of the following:

- User Requirement – the researchers conducted an interview with various companies to identify their needs so that the team can develop the appropriate system that will answer their existing concerns.
- Programming Knowledge – after determining the problems, a solution must be provided and that solution is in a form of information system that will be written in the programming language where the researchers has and adequate knowledge. The researchers will use PHP, MySQL and Bootstrap for the Inventory Management System.
- Hardware Requirements – the system cannot work alone without the hardware such as the computer and mobile devices. The researchers had explained it to the user that they need that hardware to fully utilize information system.
- Related Literature and Systems - the researchers conducted a research on the different literatures and related systems to serve as a guide in the development of the Bus Ticket Booking in Laravel.

Process

Analysis and Quick Design

During Analysis and Quick Design, the researchers did a personal interview with the respondents and the chosen client where the study was conducted. The respondents were given the chance to suggest how the system will be designed. After conducting the data gathering, the researchers made an initial design for the proposed system.

Data Analysis

The researchers will analyze all the data, user requirements and information. This phase also help the researchers to have an idea on how to create the system and have an idea on how the proposed system would be beneficial to the clients.

System Design

The researchers will start to develop the proposed system. It includes the design; how the system would look like based on user requirements, and the researchers/programmer would like to add personal design to make the system more interactive and user friendly.

Prototype Cycle

This stage will consist of the researchers' data being compiled, built, demonstrated, and refined. The researchers create a prototype first, based on the planned design and data tables. The prototype will be shown to the client after it has been built. The researchers demonstrate the system's operation, the flow of how it operates, and the functions of the system's features. The next stage is refining, in which the researchers will fine-tune the system based on the client's

extra requirements. Changes to the features flow and functionalities will be made based on the needs.

Testing and Evaluation

This will include the feed backing of the proposed system after it will be implemented and had undergone testing by three Experts. It will also inform the researchers and the developer if there are any bugs, suggestion and if the system's functionality will works well.

This will discuss the implementation of the propose system wherein Three (3) Experts will evaluate the propose system. This will also discuss if the recommended functions and suggestion are met.

Output

The study's ultimate output is an automated Bus Ticket Booking System in Laravel that will replace the conventional Bus Ticket Booking. The system's implementation is strongly encouraged.

Outcome

Benefits of the System:

- The system would be able to assist boost ticket sales and enhance revenues owing to increased services; also, the bus company that will utilize the system will be able to compete with other companies in terms of services.
- Convenience: Passengers can easily book tickets online from the comfort of their own homes, without having to physically visit a bus station or travel agent.
- Time-saving: Online booking eliminates the need to wait in long queues at bus stations to purchase tickets.
- Availability: Online booking systems often have real-time information about the availability of seats on a particular bus, so passengers can quickly and easily check for availability before booking.
- Payment options: Online booking systems usually offer a variety of payment options, including credit/debit cards, e-wallets and net banking.
- Easy to track and manage: Once the ticket is booked, passengers can easily track their booking status and manage their tickets through their account.
- Automation: The process of booking, issuing, and managing tickets can be fully automated, reducing the workload of employees and minimizing human error.
- Increased revenue: An online booking system can increase revenue by making it easier for passengers to book tickets and by allowing for more efficient management of ticket sales.

Summary

The establishment of the study's conceptual framework is the focus of this research. The researchers used the IPO model as a foundation for developing the conceptual framework in this study. The first stage is the input phase, which consists of User Requirements, Programming Knowledge Requirements, Hardware Requirements, and a Review of Related Literature and Systems. During the process phase, the researchers will develop the system

using the Software Development Life Cycle (SDLC) technique. Analysis and Quick Design, Data Analysis, System Design, Prototype Cycle, and Testing and Evaluation are all components of the SDLC technique. The study's ultimate output is an automated Bus Ticket Booking System in Laravel that will replace the conventional Bus Ticket Booking. The system's implementation is strongly encouraged.