Car rental system literature review

Technology, Computer

The Rental vehicles web system is a web-based that creates by JavaScript. Our software application aims to be a complete solution for a web based car rental broker companies with the support of call center functionality in Langkawi Island It can be easy for tourist , travel agency , and Private visitor to online make research , comparison vehicles prices and make reservation , online payment when they travel .

It also allows the administrator managed data source in short time. It accepts new reservation vehicles, View vehicles model, view date reservation for vehicles, and travel information so that customers can easy look out travel location they need. The system will add on the new feature like validation form to tell the user key in the correct value. The system wills keep records for the customers, and purchases items. So that administrator can manage customers reservation lists.

1. 2 Problem background

The web-based that creates by administrator has many useful functions. It contains auto save data, show customer products, contact and feedback form. The web system is focuses on web-based orders, products and data binding. This system is just design for online web-based system implementation, used for administrative purpose. This system will show customers details, order details, product details, payment lists and also including online product itemized bills.

1. 3 Project aim

The main mission of Rental vehicles web-based system is looking for Lankawi island rental vehicles market. It can be easy provide for tourist, travel agency, and Private visitor to online make research, comparison vehicles prices and make reservation when they travel

1. 4 Project objective

In the objectives, we aim to improve the Rental vehicles business market in langkawi Island and we also consider to provide customers able to user easy way to make reservation . Example customer can use internet access to web-based system to, looking for vehicles detail or prices and so on .

-The system will save all customers details for feature references.

– Customers can save Time, save cost, get information on the web-based and can access in any time any where

– Develop for Rental Vehicles business market in Langkawi Island.

-Easy administrator manages reservation data or processing data with customers.

-More suitable to customer with administrator to communication on internet

1. 5 Project scope

The scope of this project is create a user friendly web-based system for customers. The web-based system must be secured and easy to manage by administrator. The following feature to be focused on my web system. In booking list, this function enables customers to see booking date when

customer booking . In registration account this function enables customers to create user details and information. In vehicles model list this function enables customers to view all types of vehicles . In payment list this function enables customers to view total of pay booking list. Last, in feedback-form enables customers to send admin suggestion.

1. 6 The important of the project

The important weakness in the current system are include, connects between web pages and layout theme or maybe more. the connection at storing data to web system loading will be slow, because the system is trying to load data files on the web-based first then only will load the contents. Sometimes it may fails and need to refresh the page again and again. Then is the layout theme, the administrator was weak in web designing. Some of the webpage tables or images maybe corrupted.

1. 7 Summary

In summary, my design ideas is force on the web-based it can be completely to store all the customers overall details and reservation data into the online application system. Although this is my first time to create this kind of web-based application system and also it a challenge of myself .

Chapter 2

Literature review

Introduction

This chapter were provides the literature review which is related to the project development and make reference to existence of other systems. The sources are refer from the book, articles, journals and also sources from internet.

2. 2 Car rental System

In this twenty first century car rental system it are famous using to tourism

Web-based system understands as server components of distributed applications which use the HTTP protocol to exchange data between servers and clients(browser). By this definition, the principal problem of Web-based system development becomes apparent From business perspectives. Web-based systems can be classified as follows (Kaiser, 2000):

2. 3 Technologies Research and Development

This chapter we are provides technologies research and development technique for this project. We will explain why we using java technology to plan develop on this project, and it also compares the other open source technology.

2. 3. 1

XML

Extensible Markup Language (XML) in 1974 Charles Goldfarb, Ed Mosher and Ray Lorie invented GML at IBM.

Advantages of XML

Readability: It is text-based and therefore human readable. Moreover, given the use of text tags to demarcate the data, data represented by XML is usually somewhat understandable to the reader without reference to any other file or definition.

Universality: It supports the Unicode Standard, so text from any character set can be used. Moreover, the text and elements can be specified in different character sets.

Disadvantages of XML

Inefficient: XML was not originally defined as a database storage platform. It was designed to accommodate the exchange of data between nodes of dissimilar systems. Compared to other storage algorithms XML is relatively inefficient. The XML tags, which make it readable to humans, require additional storage and bandwidth.

XML Stylesheet: XML can be used to transmit and store documents for visual display. However, storage is not its primary or original purpose. To use it for anything beyond basic display of the data using markup requires an additional file the XML Stylesheet. XML Stylesheets are conceptually identical to HTML CSS files, but with a different syntax

2. 3. 2

JAVA

Java was created in 1991 by James Gosling et al. of Sun Microsystems. Initially called Oak, in honor of the tree outside Gosling’s window, its name was changed to Java because there was already a language called Oak.

Advantages of java

Chapter 3

Research methodology

3. 1 Introduction

This chapter we are provides the method and approach which have used to development on this System. We will discuss different type of model objects in this system project and a detailed explanation of each phase in developing on this project.

A methodology is part of important technique use to managing and controlling for research in project to achieve the specified objectives within a given time. In order to complete this research, there are five major phases involved.

Each phase involved in this project have significance in achieving the objectives of the project. This project begins with knowledge acquisition phase and finished with the documentation of result. As mentioned in the objective of this project, data matching technique is applied to provide car rental service to the users.

3. 2 Project Methodology

On this project we need found the best methodology which to easy improve , high market value in future develop on this project model . Finally were choosing Waterfall model to become planed and develop idea for this system project.

The Waterfall Model is the earliest method of structured system development and his create by Winston W. Royce in 1970 It is a highly structured development process, first used on DoD software projects in the 1970s. It is the traditional approach to software development and was derived from defense and aerospace project lifecycles now day The Waterfall Model is still common and widely used in software develop filed.

Requirement Analysis & Definition: All possible requirements of the system to be developed are captured in this phase. Requirements are set of functionalities and constraints that the end-user expects from the system. The requirements are gathered from the end-user by consultation, theses requirements are analyzed for their validity and the possibility of incorporating the requirements in the system to be development is also studied. Finally, a Requirement Specification document is created which serves the purpose of guideline for the next phase of the model.

System & Software Design: Before build the actual coding and actual design we must to understand what we are going to create and what requirement material used to? The requirement specifications from first phase are studied in this phase and system design is prepared. System Design helps in specifying hardware and system requirements and also helps in defining

overall system architecture and specifications with serve as input for the next phase of the model also.

Implementation & Unit Testing: This step is receiving system design documents, the job are divided in to the modules and started with the actual coding. When the system is first to developed in small programs we will called this units, which are integrate in the next phase. Each unit is developed and tested for its functionality; this is referring to as Unit Testing. Unit testing mainly verifies if the modules or units meet their specifications.

Integration & System Testing: Specified as above the system is first divided in units which are developed and test for their functionalities. These units are integrated into a complete system during Integration phase and test with all the modules coordinate between each other and the system as a whole behaves as per the specifications. After successfully testing the software, it will hand in to the customer.

Operations & Maintenance: This phase of " The Waterfall Model" is virtually never ending phase. Generally, problems with the system developed which are not found during the development life cycle come up after its practical use starts, so the issues related to the system are solved after deployment of the system. Not all the problems come in picture directly but they arise time to time and needs to be solved; hence this process is referred as Maintenance.

3. 4 Methodology Justifications

Now in this project we will discuss how can we justification idea of waterfall model , why we choose waterfall model to be software development idea, and what advantages in waterfall model .

The waterfall model is follows a linear and strict set of stages during its development process. The waterfall model can be process model follows a particular life cycle in order to ensure success in process of software development. Important is the waterfall model have high value in software development field and now a day still a lot of software develop company used to develop they are software productions.

The advantage of waterfall model is it allows for departmentalization and managerial control, after than a schedule can be set with an end time for each stage of development and a product can proceed through the development process like a shirt in a washing machine, and theoretically, can be finish on time. Development moves from concept, through design, implementation, testing, installation, troubleshooting, and end up at operation and maintenance. Each phase of development proceeds in strict order, without any overlapping or iterative steps.

3. 5 System Requirements

In the development system we will refer to the develop phase and will follow the certain requirements in order to make work more efficiently.

3. 5. 1 Hardware Requirements

In hardware part we will suggest used Intel core i5 Processer(centre unit processor) to run for sever web base . The amount of RAM (Random Access Memory) that is required depend many factors such as requirement to other services, frequently accessed content files, operating system paging files and the web service application. It is recommended to have at least 1GB (Gigabyte) of RAM in order to run the application. Having more RAM (2GB or 4GB) in your server will be better as it will allow more files to be cached, reducing disk

3. 5. 2 Software Requirements

In software Requirement will used MYSQL to be save data. Because MySQL has its built-in command prompt window to run the required commands. It is recommended to use SQLWave 5 which makes it easier to create, edit, update and delete MySQL databases with its powerful GUI (Graphical User Interface)

3. 6 Summary

The methodology used is the Waterfall process model because it is the most suitable method for this project. It has a linear framework and goes forward within a strict set of phases. This method has more advantages when compared with other methods. The system requirements which is the hardware and software requirements needed for the project were also discussed in this chapter. The next chapter covers the design and implementation part of this project.

Chapter 4

Design and implementation

Introduction

In this chapter we will discuss more in details about the system design and implementation of the web base online reservation system. In the system design and application implementation architecture we will provides more advantage develop technique and further with visual diagram

4. 3 System Flows

In the system flows will follow for the online rental vehicle system and it will be discussed in details with the help of Use Case Diagrams and Sequence Diagrams. The Use Case is used to represent distinct pieces functionalities of whole system in a graphical and overview in terms of actors and their goals and any dependencies between them. In part of main idea is will represent which actor is performing for what system functions, and also will describes the roles of actors in the system.

On the other hand , a sequence diagram can map a scenarios described by a use case in step by step detail to define how objects collaborate to achieve applications goals.