

**Ticket.Com**

**Online Bus Ticket**

**Reservation**

**&**

**Rent a Car**

**Introduction:**

Ticket.Com computerizes traditional bus ticket reservation system, but acts as a third party between customers and bus companies. By using Ticket.com customers can reserve bus ticket,pay for bus ticket and also can cancel bus ticket .User also can rent a car. We can divide the projects into two Sections .They are:

* Bus Ticket Reservation section
* Rent a car section

Bus ticket reservation section has three Modules. First module helps the customer to enquire the availability of seats in a particular bus at a particular date .Second helps him/her to reserve ticket after completing payment transaction. Third module he/she can cancel a reserved ticket.

* First module retrieves data from database required for enquire.
* Second module inserts values into database on reservation.
* Third module delete data from database on Ticket cancelation.

The second section has also three modules .The first modules shows available cars and its relevant information to customer. The second module allows him/her to rent desired car .The module allows him/her to cancel the order of rented car.

* First module retrieves data from database to display available cars
* Second module inserts data into database on rent a car.
* The Third module delete data from database on cancelation.

As our application is hosted using IIS Server onto internet it can be accessed by many number of people concurrently.

**2. System Study**

System study aims at establishing requests for the system to be acquired , development and installed. It involves studying and analyzing the ways of an organization currently processing the data to produce information . Analyzing the problem thoroughly forms the vital part of system study. In System analysis, prevailing situation of problem is carefully examined by breaking them into sub problems .Problematic areas are identified and information is collected. Data gathering is essential to any analysis of requests. It is necessary that this analysis familiarizes the designer with objectives, activities and the function of the organization in which the system is to be implemented.

**2.1 Study of Existing System**

* Existing system is totally on book and thus a great amount of manual work has to be done .The amount of manual work increases exponentially with increase in bus services.
* Needs a lot of working staff and extra attention on all the records .
* In existing system , there are many problems like keeping records of items, seats available, prices of per seat and fixing bill generation on each bill.
* Customers need to go to the bus counter for reserving bus ticket which is sometimes wastage of time and extra money .
* There are a few websites which offer bus ticket reservation but they do not provide rent a car service .

**2.2 Proposed System**

The system I propose is simple in design and to implement .The system requires very low system resources and the system will work in almost all configuration . And any person who knows how to use internet can use the system . It has got the following features

**Features of Bus Reservation Service**

* Any person across the world, having internet connection can access the service .
* Store user information efficiently
* Store detail information of a bus such as registration number, number of seats , Ac or non-Ac etc .
* Store different routes of bus
* Provide an efficient and easy way for enquiring Availability of bus and seats for specific routes .
* Provide an easy online payment system
* Provide data security and accuracy
* Simple cancelation process
* User friendly user interface
* Home delivery of ticket
* Allow administrator to edit ,update information such as route information , bus information etc

**Features of Rent a Car Service**

* Store detail information of a car for rent such as driver’s mobile number registration number ,number of seat , Ac or non-Ac etc.
* Provide an efficient and easy way for enquiring cars.
* Displaying different types of cars for rent and their detail information
* Allow administrator to edit ,update about cars.
* Provide an easy online payment system

2.3 Process Model

I choose Throw Away Prototype process model because

* + - Data oriented application
    - Misunderstandings are clarified
    - Missing functions can be identified
    - Poor interfaces can be refined
    - Missing requirements can be identified

**3. Requirement Specification**

Requirements of Ticket.com are specified in the following two categories :

1. Functional Requirements
2. Non-Functional Requirements

**3.1 Functional Requirements**

* Details of buses such as bus schedule, routes , fare etc should be collected from bus companies.
* Information of buses ,routes should be stored in DBMS .
* Details of buses , routes and fare of ticket of each bus are to be maintained and can be updated regularly(Only by Administrators)
* Enquiry form , bus and route information based on enquiry form ,choosing seats of selected bus form , payment form are to be maintained in separate pages .
* Calculation of fare for multiple seats are to be calculated by the application alone as designated by Administrator
* Details of cars such as photo of car , registration number etc for rent a car service should be displayed in a separate page.
* Information of cars are to be updated regularly by administrator

**5.2 Non-Functional Requirements**

* The application should be platform independent
* The application should be easy to use so that all types of user can use the system
* All date stored in DBMS should be accurate
* Security of data should be ensured
* Payment system should be secured
* The interaction time between user and the application should be as less as possible
* The interfaces should be user friendly

**4.System Specifications**

**4.1 Hardware Requirements**

* Pc with Core 2 Duo
* 1 GB Ram or above
* 512 Hard Disk

**4.2 Software Requirements**

* Operating System Windows Xp(or latest).
* Front End Visual C#.
* Platform ASP.NET MVC(.NET Platform 3.0 or above)
* Backend MS SQL SERVER 2012
* **Microsoft Visual Studio 2013**

Microsoft visual studio is an IDE (Integrated Development Environment) developed by Microsoft .It is a comprehensive collection of developers tools .It is used to develop computer programs for Microsoft Windows, as well as web sites, Web application and web services .

Visual studio support different programming language such as C, C++, C#(Visual C#), F#, VB.net etc. It also support XML/XSLT , HTML/XHTML, JAVASCRIPT and CSS.

Features of Visual Studio are given below :

**Code Editor**

Visual Studio includes a code editor that supports syntax highlighting and code completion IntelliSense for variables, functions, methods, loops and LINQ queries.

**Debugger**

Visual Studio includes a debugger that works both as a source-level debugger and as a machine-level debugger.

**Designer**

Visual Studio includes a host of visual designers to aid in the development of applications. These tools include Windows Form Designer ,Web designer/development ,class designer , data designer , mapping Designer .

**Extensibility**

Visual Studio allows developers to write extensions for Visual Studio to extend its capabilities.

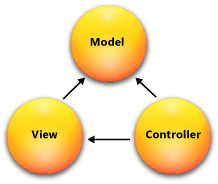
**Other Tools**

Some other tools of visual studio are Open Tab Browser ,Properties Editor ,Solution Explorer ,Team Explorer, Object Browser etc.

**ASP.NET MVC 5**

The Model-View-Controller (MVC) architectural pattern separates an application into three main components: the model, the view, and the controller. The ASP.NET MVC framework provides an alternative to the ASP.NET Web Forms pattern for creating Web applications. The ASP.NET MVC framework is a lightweight, highly testable presentation framework that (as with Web Forms-based applications) is integrated with existing ASP.NET features, such as master pages and membership-based authentication. The MVC framework is defined in the System.Web.Mvc assembly.

MVC design pattern



**Microsoft Sql Server 2012**

**Microsoft SQL Server** is a relational database management system developed by Microsoft. As a database, it is a software product whose primary function is to store and retrieve data as requested by other software applications, be it those on the same computer or those running on another computer across a network (including the Internet). There are at least a dozen different editions of Microsoft SQL Server aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users. Its primary query languages are T-SQL and ANSI SQL.

**5. Design**

**5.1 Use Case Diagram**

Administrator

Future Plan

Now By using this application , user can buy bus tickets for large cities such as Dhaka , Chittagong etc . In future we cover every district of Bangladesh. There is a plan to include features for selling train tickets .

**Conclusion**

This system digitalizes the traditional bus ticketing system and the rent a car service .This facility is helpful for the user and the organization as well. This is a simple yet effective technology which helps the user to access the service concurrently from different places . As well as it reduces the burden of the administration to maintain numerous data of passengers . The system is cost effective for both users and the organization .

References

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* C# 2010 for Programmers by Paul Deitel and Harvey Deitel

Electronic Referential

* <http://msdn.microsoft.com>
* <http://asp.net>