

EWheelz

Abstract

Journey became part and parcel of a human being's life. Without moving around, people cannot communicate and share the moments with others. In this busy world, especially when more and more population is seen in the developing nations, it is highly essential to have a comfortable and safe journey. When a passenger wants to go on a journey, he wants to first reserve some seat in a bus and for the intended date. This becomes easy with EWheelz software which helps in obtaining reservations of seats in a bus well before and take the tickets also online by staying at home.

EWheelz software is a globally deployable, integrated, workflow based end-to-end system starting from searching bus routes to book them online. This is a complete application for travelers as well as vendors. Vendors provide the information like, available routes, timings, price, etc. Customers can book a ticket which is a five step process that includes Search Bus, Select Bus, Select Seats, Provide Customer Information and Make Payment. This application also provides facility to cancel a booked ticket online. There is also scope to measure the user satisfaction regarding the entire booking process. He can express his views or grievances through testimonial option in the application so that it reflects the goodwill of the travel company and helps

other users to have trust in the company.

Existing System

Here the existing system is a manual one. When a customer wants to book a ticket for his journey then he needs to go to any booking branch office physically and book the ticket. In this case the branch people need to check the available seats by making a call to main office and then only these people can book tickets which leads to improper synchronization between the branches. We can maintain all the booking details in a record at every branch but finally checking the availability and allotting the seats may cause some human errors. It is very difficult to maintain the booking details of each bus and their status manually.

Disadvantages:

- Difficulty in co-coordinating different branches and allotting the seats
- Customer has to come and book the ticket physically which gives competitors to grab the market
- Difficulty of maintaining each bus booking details in record

Proposed System

The EWheelz is to replace the existing manual system with an online software solution using which provides a lot of flexibilities for the customers from online. Customer can book tickets according to his requirements by

viewing different different buses information and their seat arrangements on the console very easily. It fills the gap between different branches and provides effective synchronization between them. It allows the customers to post their feedback which will be displayed as testimonial.

Merits of This System

- Faster processing when compared to existing one.
- Centralized system
- Provides convenient way for the customer to book required seat as per their convenience and cancel the ticket also.
- Providing good co-ordination between different branches.
- Provides the facility to print the ticket

Scope of the System

The proposed system scope is Internet. We are using this system through out the world. In future it can be enhanced to be a global communication medium for multinational companies. We can also implement internationalization (i18n) to support user interface in various/local languages.

Module Description

The system “**EWheelz**” consists of 4 modules

1. Admin Module
2. Bookings Module
3. Cancellation Module
4. Users Module

Admin Module: This module deals with the functionalities of administrator that includes addition or cancellation of travels, addition or cancellation of routes etc. Mainly this module covers the two issues. One is routes information and the other one is travels information. All the routes details, adding or viewing the routes will be included in this module. All the travels information, buses which are available in the corresponding travels, pickup points, travels code, bus details, passengers and the seats information, all these details will be included in this module. Only administrator user can perform all these functionalities.

Bookings Module:

All the routes searching information, buses selection process, selection of seats, pickup points, details of payments and print booked ticket details all these information will be included in this module. Only normal user can perform the above tasks.

Cancellation Module:

In this module user can cancel his/her ticket by entering the ticket number then the money will be added to his account

Users Module:

This module deals with functionalities provided to all users like provide testimonials and view testimonials. If the user wants to give suggestions and any complaints then he directly go to the testimonials button which is available at the top of the screen. In that place he can add the testimonials, and he view all the testimonials which are posted from the users will be displayed at the same screen. These testimonials information will be stored in the database. All the information will be included in this module.

Features to be implemented

- *Session management*
- *Connection pooling*
- *Normalized database*
- *Prevention of duplication login*
- *Design patterns*
- *Three-tier architecture*
- *Maintainability*
- *Easy deployment with Ant script.*
- *Exception handling*
- *Client-side validations*

Technologies to be used

- *Web Presentation: HTML, CSS*
- *Client – side Scripting: JavaScript*
- *Programming Language: Java*
- *Web based Technologies: JNDI, Servlets, JSP*

- **Database Connectivity API: JDBC**
- **Build Tool: ANT**
- **Debug Tool: Log 4J**
- **CASE tool: Rational Rose, Visual Paradigm, Enterprise Architect**
- **Backend Database: Oracle/SQL Server/MY SQL/MS Access**
- **Operating System: Windows XP/2000/2003, LINUX, Solaris**
- **J2EE Web/Application Server: Tomcat/Web logic/Web sphere/JBoss/Glass Fish**
- **IDEs: Eclipse with My Eclipse plug-ins/Net Beans/RAD**
- **Browser: IE/Mozilla**

Hardware requirements

- **Pentium processor ----- 233 MHZ or above**
- **RAM Capacity ----- 128MB**
- **Hard Disk ----- 20GB**
- **Floppy disk ----- 1.44 MB**
- **CD-ROM Drive ----- 32 HZ**
- **KEYBOARD ----- 108 Standard**