

*A*  
***Project Report on***  
**Online Railway Ticket Booking System**



By  
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**(2012)**

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# *CERTIFICATION*

*This is to be certified that:*

*Chandra shekhar bhakat*

*Biswajit singh*

*Anirban sarkar*

*Sayantan dutta*

*Atanu de*

*The Final year Students of “BANKURA UNNAYANI INSTITUTE OF ENGINEERING”, Bankura in the department of “Information Technology” have worked on the College Project Entitled with:*

*“ONLINE railway ticket reservation SYSTEM”*

*Under the guidance of*

*Mr. Milton somadar*

.....  
*Authorized Signatory*

*Dated:*

.....  
*Mr. Milton Somadar*

## *ACKNOWLEDGEMENT*

We are very thankful to Mr.Milton Somadar(Lecturer, Information Technology Department, BUIE) to give us the opportunity to build this project. We are also very thankful to our teacher guide because without his guidance it would not be possible to build this project.

Last but not the least we would like to thank the entire BANKURA UNNAYANI INSTITUTE OF ENGINEERING Information Technology Department (BUIE) for allowing us to proceed with the project.

- *CHANDRA SHEKHAR BHAKAT*
- *BISWAJIT SINGH*
- *ANIRBAN SARKAR*
- *SAYANTAN DUTTA*
- *ATANU DE*



# **ABSTRACT**

The Indian Railways (IR) carries about 5.5 lakhs passengers in reserved accommodation every day. The Computerised Passenger Reservation System (PRS) facilitates the booking and cancellation of tickets from any of the 4000 terminals (i.e. PRS booking window all over the countries). These tickets can be booked or cancelled for journeys commencing in any part of India and ending in any other part, with travel time as long as 72 hours and distance upto several thousand kilometers.

In the given project we will be developing a website which will help users to find train details, book and cancel tickets and the exact rates of their tickets to the desired destination.

With the help of online booking people can book their tickets online through internet, sitting in their home by a single click of mouse. Using their credit cards people can easily get their tickets done within minutes.

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# INTRODUCTION

## 1.1 General Overview

Our website has various kinds of information that helps regarding booking of tickets via railways .

Users will be able to search the train availability ,the exact fare ,the arrival and departure time of the train and they can also book the ticket by using the debit ,credit or master card and after booking the ticket if the user want to cancel it then they can easily do it also.

## 1.2 Survey

Railway passengers frequently need to know about their ticket reservation status, ticket availability on a particular train or for a place, train arrival or departure details, special trains etc.. Customer information centers at the railway stations are unable to serve such queries at peak periods.

The number of the reservation counters available to the passengers and customers are very less.

On most of the reservation systems there are long queues, so it takes a long time for any individual to book the ticket.

As now there are no call centers facilities available to solve the queries of the passengers.

The online railway ticket reservation system aims to develop a web application which aims at providing trains details, trains availability, as well as the facility to book ticket in online for customers.

So, we thought of developing a web based application which would provide the users all these facilities from his terminal only as well as help them in booking their tickets. The Application was to be divided into two parts namely the user part , and the administrator part. And each of these has their corresponding features.

We decided to give the name of the website “ONLINE RAILWAY TICKET RESEVATION”.

The online railway ticket reservation system is developed using ASP.NET with C# as the backend in the .NET Framework.

## 1.3 Objectives:

The objective of the online railway ticket reservation system Project is to design software to fully automate the process of issuing a railway ticket.

That is:-

1. To create a database of the trains
2. To search the trains it's arrival and departure time, distance between source and destination.
3. To check the availability of the ticket.
4. To calculate fare.
5. To book the ticket.
6. To cancel the ticket if necessary.

## 1.3 Analysis

Online railway ticket reservation is a online ticket booking website, which is capable of booking ticket and search the train availability . This website is mainly created to fulfil the following requirements, it comprises of the following properties:-

- A central database that will store all information.
- An online website that will provide real- time information about the availability of tickets their prices .
- Every registered user is able to view his booking id that has been made in his/her name.
- Every registered user can change his password any time he wants to change.
- Every guest user can search train availability ,price of the ticket, arrival and departure time ,distance between source and destination etc.
- Every registered user has the facilities to print his ticket any time he wishes.

Administration login

- In admin mode the administrator can make changes in train details.
- He can also view all booking that has been made by different users.
- The booking window contains all the facilities at one place, the user can simply login to his account and can book his ticket.



## 1.4 **Organization of the report**

Serial No.	Topic
	Abstract
1	Introduction
1.1	General Overview
1.2	Survey
1.3	Analysis of problem
1.4	Organization of the Report.
2	Software Requirement and Specification
3.	Detail design
3.1	Detailed design Specification
3.2	Data flow diagram
3.2.1	Level 0 DFD
3.2.2	Level 1 DFD
3.2.3	Level 2 DFD
3.2.4	Level 3 DFD
3.3	ER-Diagram
4	SDLC
4.1	Implementation
5.	Results and discussions
6	Summary and Conclusion
6.1	Summary of achievements
6.2	Main difficulties encountered
6.3	Limitation of the project
6.4	Future Scope of work
7.	References/Bibliography

The report has been organized into seven sections, each section dealing with a different aspect of project and its development. A brief overview of each of the section is in order.

The **Software Requirements Specification** section will deal with the technical details of the proposed system. It will contain information regarding the developmental and operational environments, user interfaces, functional and requirements specifications and the exception and error handling features of the system.

The **Design** section will provide a detailed insight into the working of the system, how the system to be framed to make the implementation error free and to avoid a possible rework. All the features mentioned in the SRS section will be dealt with in detail through the means of architectural design, block diagram, detailed data flow diagrams, structure charts, flow chart and any other relevant method.

Through the use of pseudo-codes, the **Implementation Details** section will provide the final design step before actual implementation of the system. It will list all the functions that will be used in the system, parameters used by them, what results they will produce and how they will interact with the rest of the system.

All queries regarding the actual performance of the developed system will be cleared in the **Results and Discussion** section. It will list all the test cases, results of those tests and a discussion on whether these tests yielded the desired results or not. If negative, this section will also provide information regarding the failure.

Concluding all this will be the **Summary and Conclusion** section which will round up the entire discussion.

This will be followed by the **Reference/Bibliography** section that will tell about the books and site that have been referred by us while developing the website.

## **2. Software Requirements Specification**

### **2.1 Development Environments**

#### **Hardware**

Intel core 2 duo T6400 2.00 GHz with 2GB RAM, 250 GB hard disk space and other Standard accessories.

#### **Environment and Applications:**

- Microsoft Windows 7.
- Microsoft Visual Studio 2010.
- Microsoft SQL Server 2005.
- Microsoft Internet Explorer.

### **2.2 Operating environment:**

#### **Hardware configuration:**

The minimum configuration for hardware is given below:

- Intel® Pentium® or higher processor.
- 65 MB RAM or higher

#### **Software configuration:**

- Microsoft® Windows® XP or later versions
- A standard web browser.
- .Net framework.

### 3. DESIGN

#### 3.1 Detailed design specification:

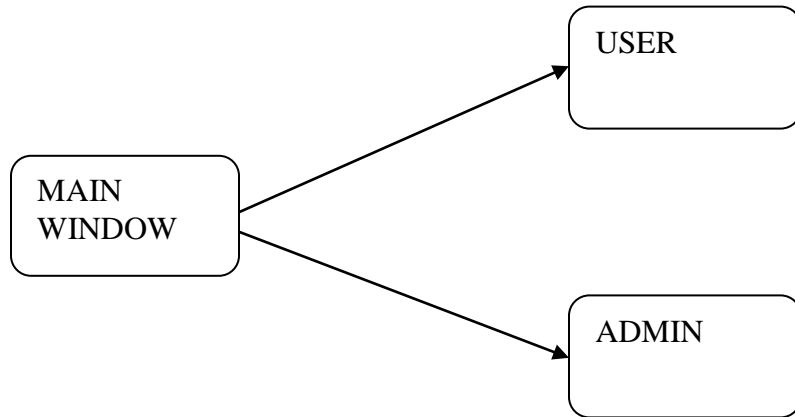


Fig: Homepage

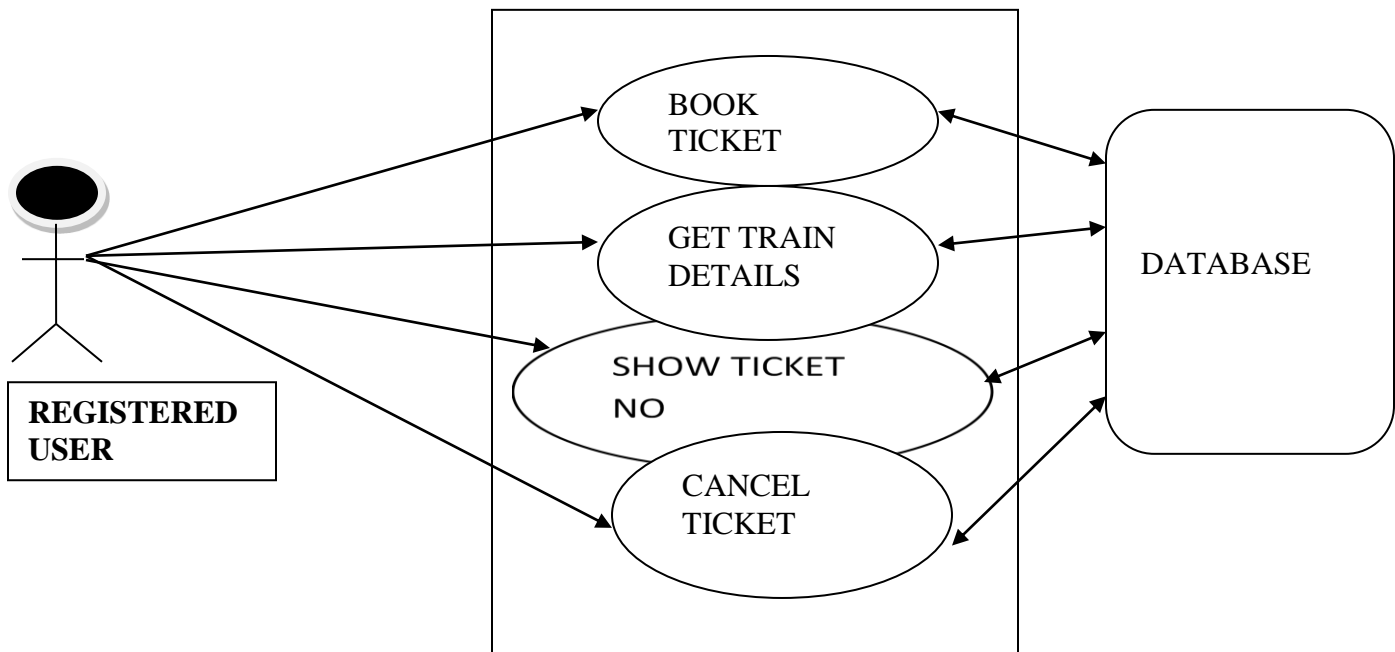
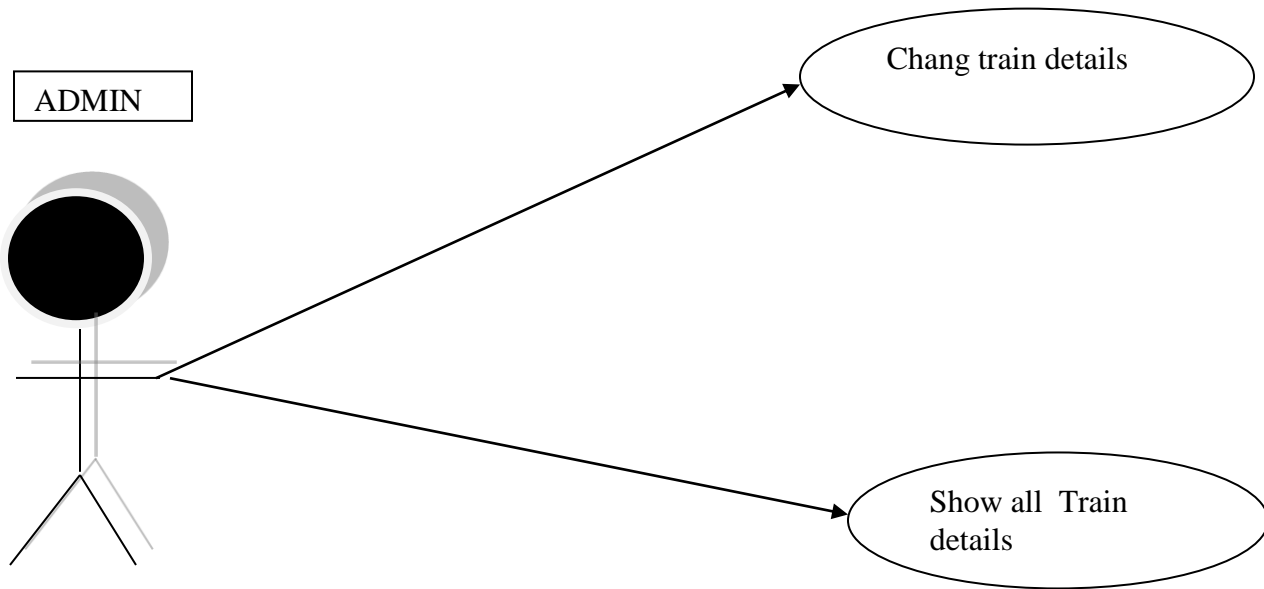
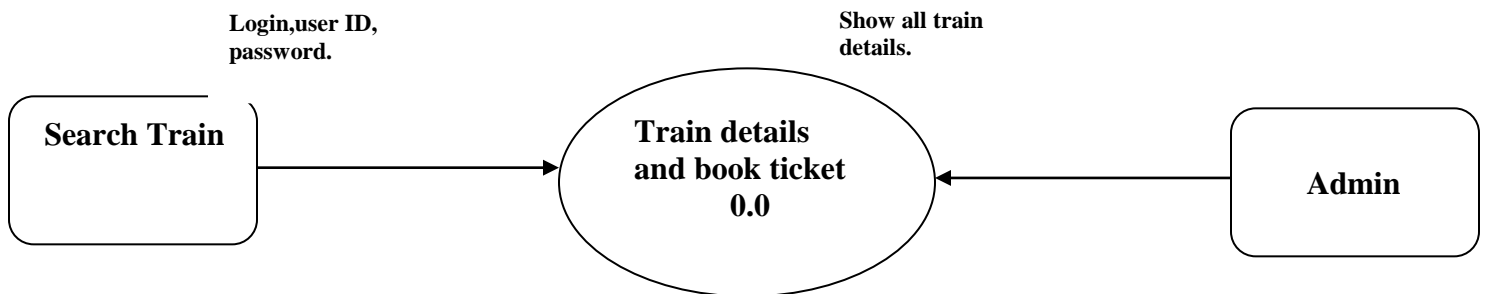


Fig: User's booking window

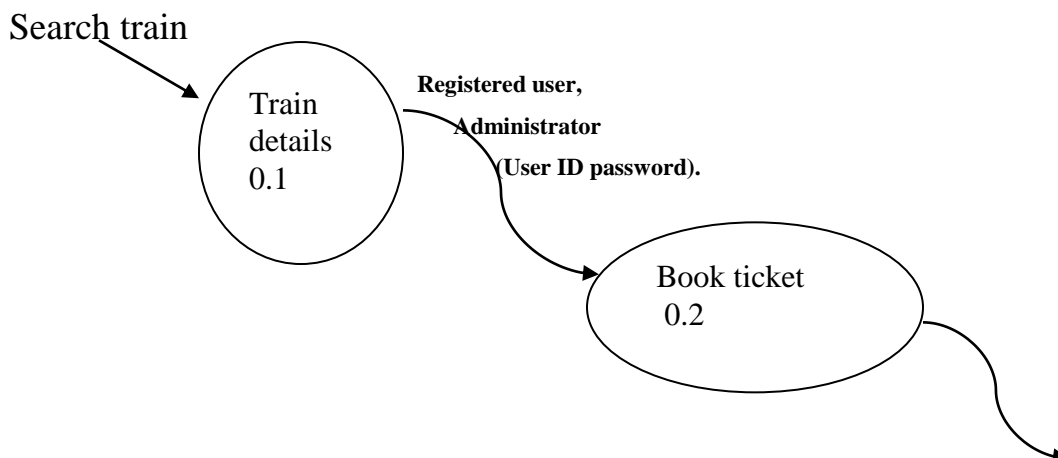


### 3.2 Data Flow Diagram

#### 3.2.1 Level 0: CONTEXT DIAGRAM

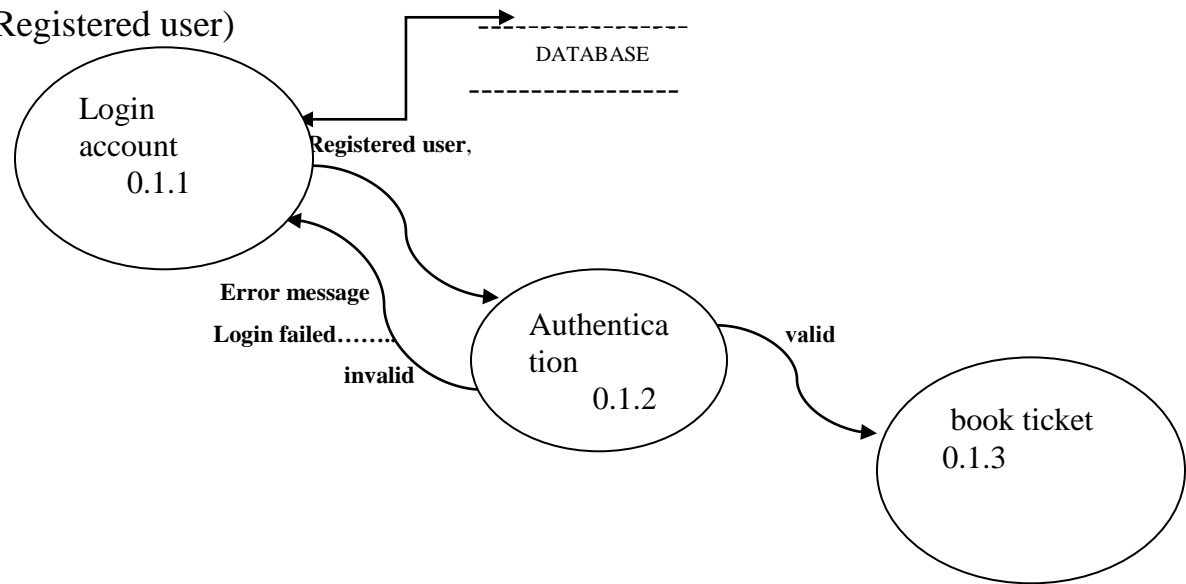


#### 3.2.2 Level 1 DFD

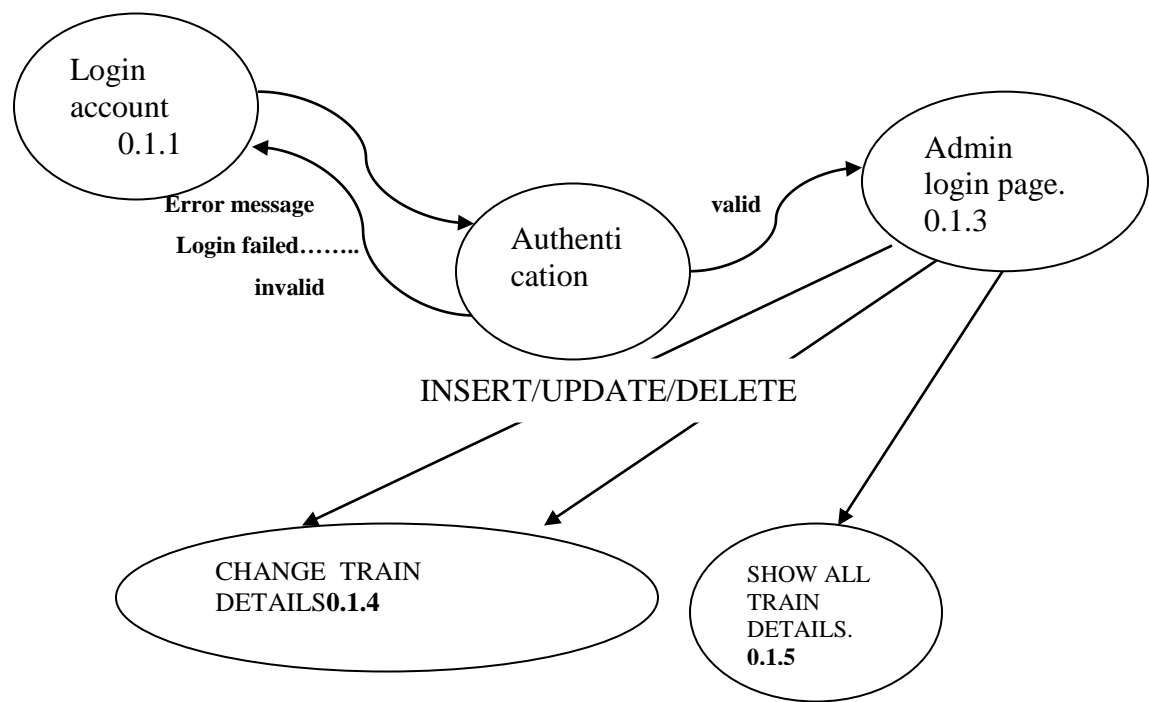


3.2.3 Level 2 DFD

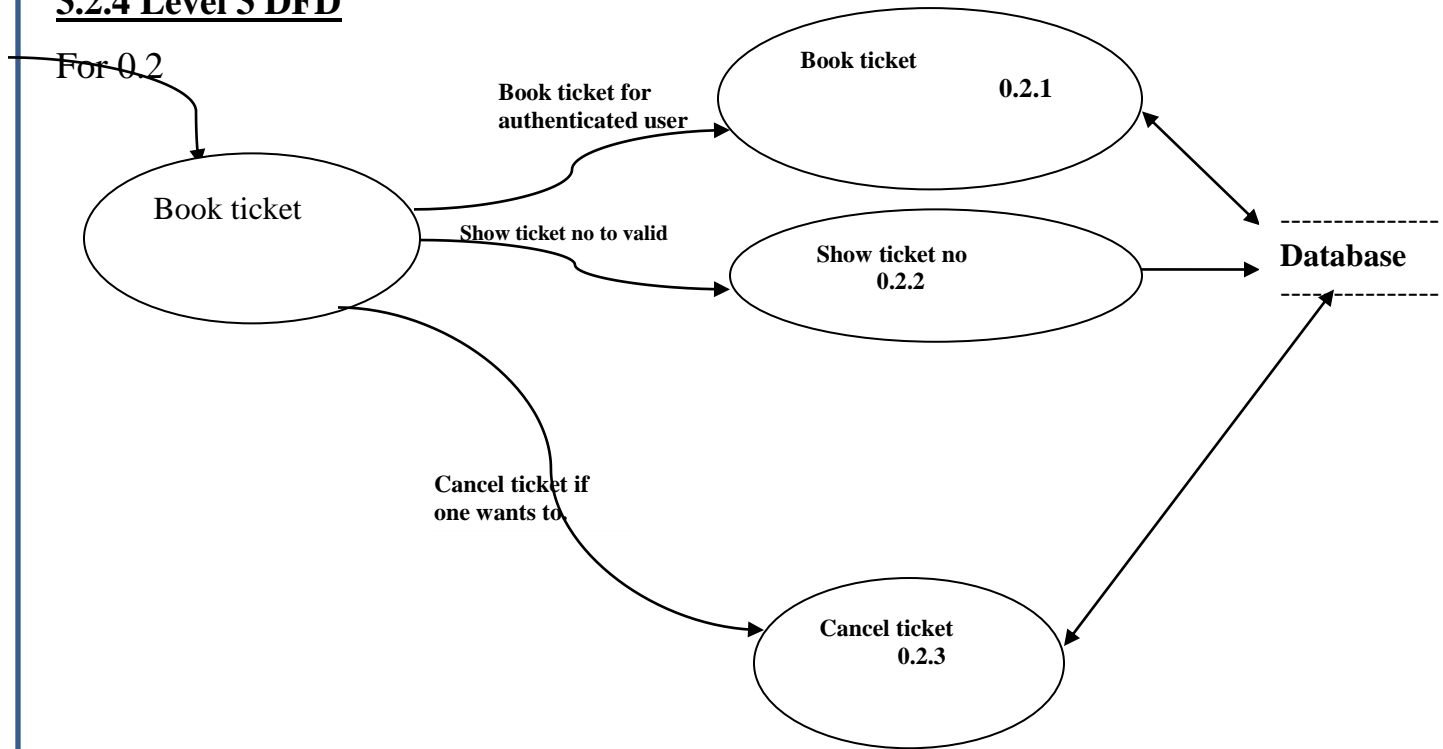
For 0.1(Registered user)



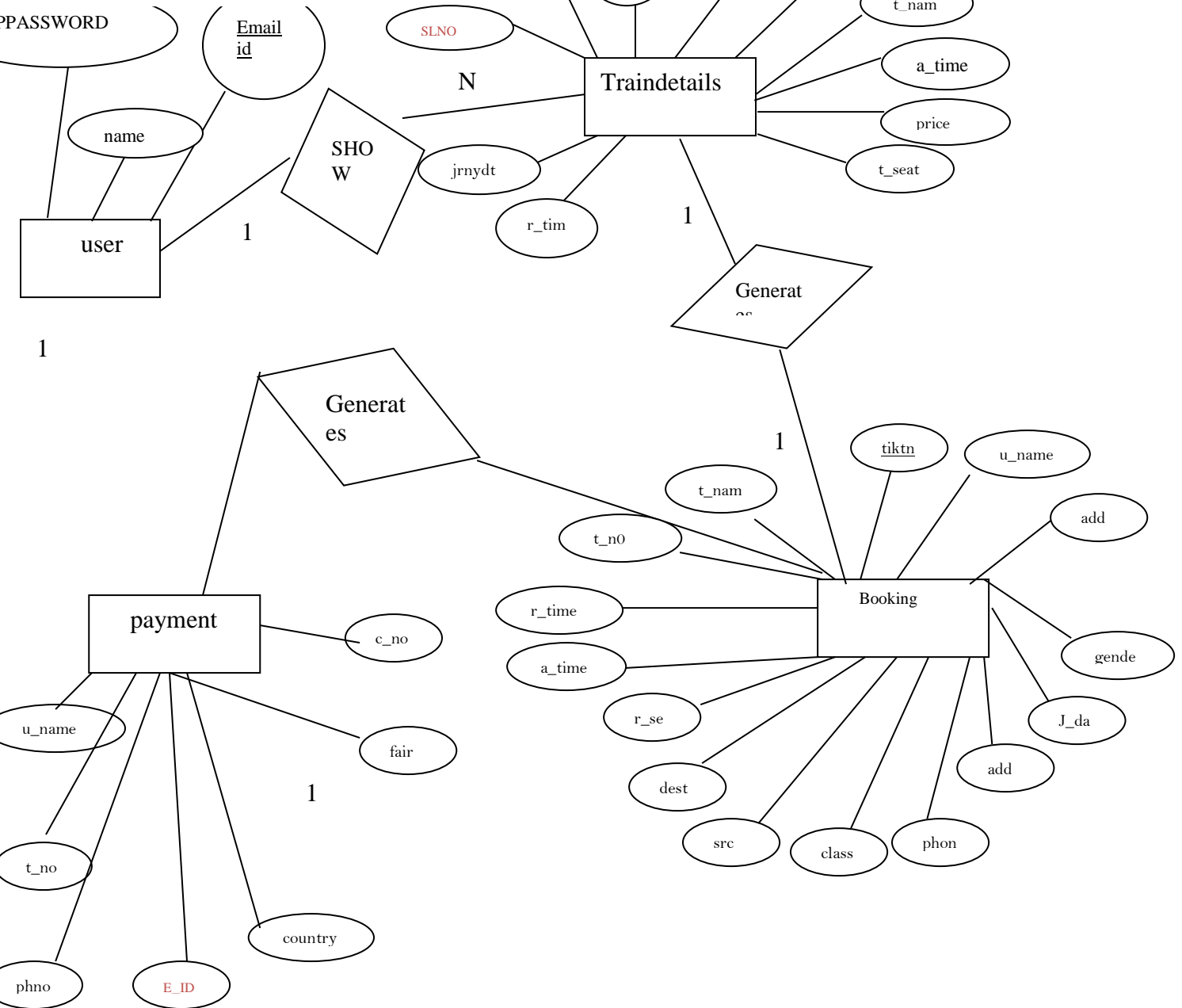
(Administrator)



### 3.2.4 Level 3 DFD



# 3 E-R DIAGRAM





## 4. SDLC (Software development Life Cycle)

Every activity has a life cycle and software development process is not an exception for the same. Even if you are not aware of SDLC you still must be following it unknowingly. But if a software professional is aware about SDLC he can execute the project in a much controlled fashion. One of the big benefits of this awareness is that hot blooded developers will not start directly execution (coding) which can really lead to project running in an uncontrolled fashion. Second it helps customer and software professional to avoid Confusion by anticipating the problems and issues before hand. In short SDLC defines the various stages in a software life cycle. But before we try to understand what SDLC is all about. We need to get a broader view of the start and end of SDLC. Any project started if it does not have a start and end then its already in trouble. It's like if you go out for a drive you should know where to start and where to end or else you are moving around endlessly. Below is the figure that shows typical flow in SDLC which has five main models .

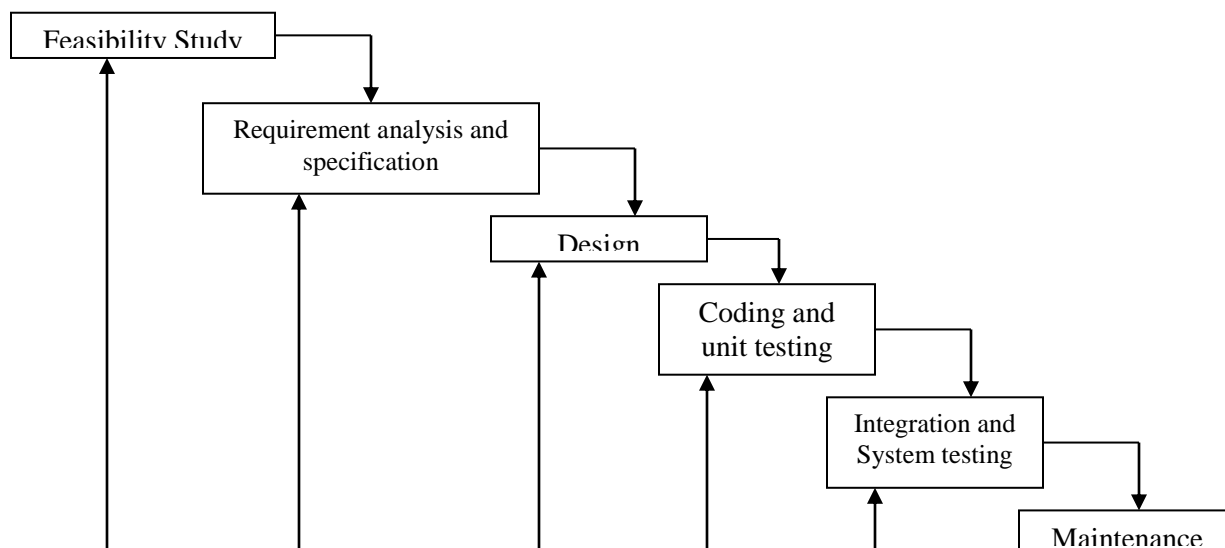
- **Waterfall** - Big Bang and Phased model .
- **Iterative** - Spiral and Incremental model.

### **Iterative model**

Iterative model was introduced because of problems faced in Waterfall model.

The iterative waterfall model is used in the development of the system. The system is developed in increments, each increments adding some functional capability to the system until the full system is fully implemented.

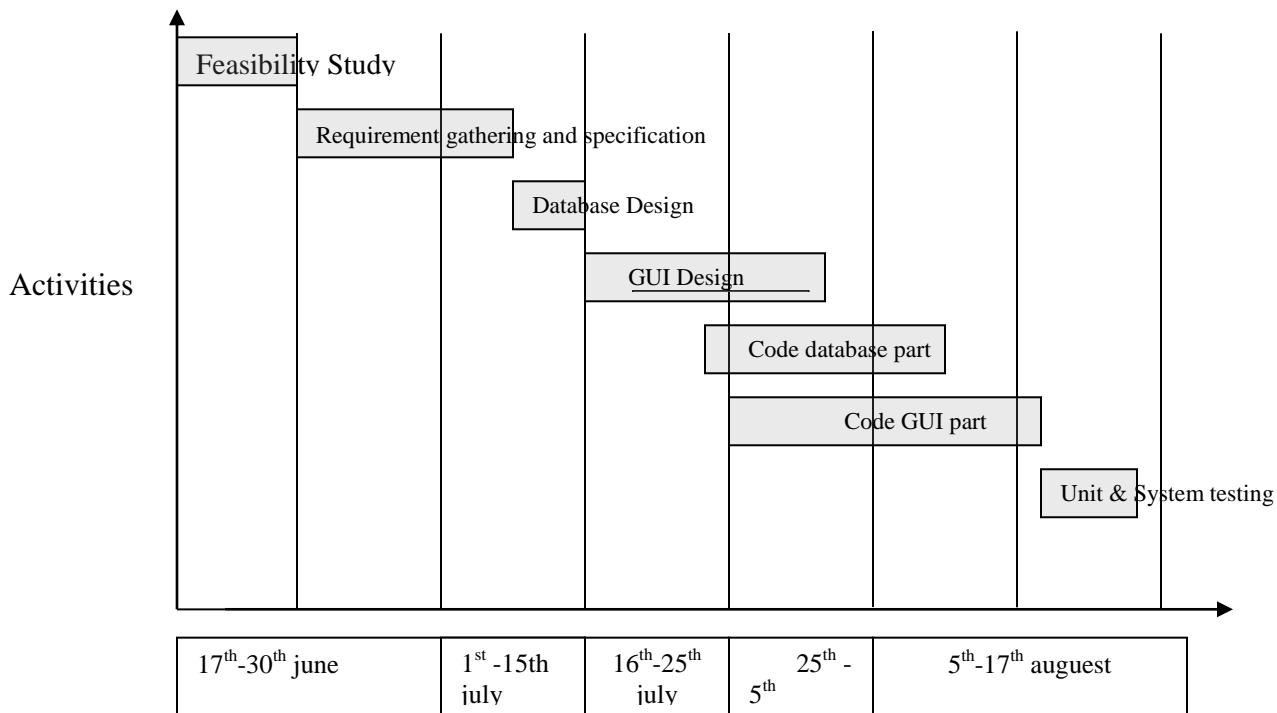
The advantage of this approach is that it will result in better testing, as testing of each increment is easier than testing the entire system in totality. Furthermore, this approach provided us with important feedback that was very useful in the implementation of the system.



## Development Schedule

The work on the proposed ONLINE RAILWAY TICKET RESERVATION was started on 17<sup>th</sup> June, 2011 and it was estimated to be over by 17<sup>th</sup> of August, 2011.

The following Gantt chart has explained the estimated duration of the different phases of the software development work diagrammatically:



## 4.1 Implementation Details

### 4.1.1 System Overview

Online railway ticket reservation system is a web based application. It has been developed using ASP.NET and C# as the code end programming language. A MS SQL Server database consisting of multiple tables is used for data storage.

This Website is a online travel booking website, which is capable of booking tour of national and international destination with easy steps at the cheapest rate . It allows the Administrator to perform all operations and view bookings. The general user is however given only restricted access.

Travelmasti helps in booking tour packages. The user can't book any tour until he is a registered user.

## 4.1 MySQL

MySQL server: – MySQL server is basically a database server which is mostly used for storing user data into the required database in a specific table for easy access of these data in the future. The database server works when a local application invokes it. Before storing data into a database with the help of database server, PHP sends a SQL query to MySQL database server for establishing a connection to the server by using the loopback address, i.e., 127.0.0.1 along with the user name and password for getting authentication from the database server. Since connection is established locally with the database server by PHP, so there is no chance of getting access to database server for modifying database by the client. Also , when PHP request for information retrieval from the database server by sending SQL query then the database server sends back the result of query after executing it by the database server. Another method of accessing database server is only possible by locally, i.e., only administrator of that particular computer can get all the access facilities of the database server as well as all the database which are not available to restricted users. PHP can update information in the database server if it has the administrator username and password to access the specific database, otherwise connection will be rejected by MySQL server and the database cannot be updated.

Since before the dawn of the computer age , people have been using databases. Before computers, a database may have been a Rolodex containing phone numbers of the important people you knew, or it was a filing cabinet that contained all the personnel records for the company. Today, databases are computer-based and are found virtually everywhere. From desktop databases of your record collection to Web-enabled databases that run large corporations.

#### 4.1.1.2 EVOLUTION OF ASP.NET

The first beta version of ASP was code named denali. Denali allowed the developer to execute code within a web page. Advanced functions could be performed using ActiveX Data Objects. The next version of ASP was ASP 1.0, WHICH WAS available as an add-on IIS 3.0. In this version of ASP, ADO had become faster and effective as compared with the previous version. The next version ASP 2.0, came as a part of windows NT 4.0. Now components were easier to build because of the introduction of Microsoft Transaction Server, which allowed the components to be a part of transaction. Then, ASP 3.0 was introduced which came along with windows 2000. In this version, Microsoft combined MTS with core COM into COM+ and included it as a part of windows 2000 itself.

The latest version, of ASP is ASP.NET. ASP.NET has come to us along with the .NET framework. ASP.NET is an object oriented server side scripting tool. Hence, it facilitates easy development of object oriented and granularized code.

#### **Drawbacks of ASP**

- VBScripts and JavaScript are the only two scripting languages available in ASP. These are basic non-typed languages. You cannot use strongly typed languages like Visual Basic or c++.
- ASP pages are interpreted. This makes their execution slower.
- ASP pages are very untidy. They are a spaghetti-like mixture of code. HTML and text.
- While creating a web application using ASP pages, the programmers and the designer had to work on the same life. The programmers had to write the code to provide required functionality and the designers too had to create the graphics and content, and all this had to be combined into a single file.
- In ASP, you have to write code to provide any functionality you require. For example, if you required any validations to be performed you had to write code for it to occur. A huge numbers of lines of code had to be written.
- Re-use of code was not given much focus in ASP. You could do it only by using the include statement.
- There was no debugging mechanism in ASP. You could debug ASP application only by using the response.write. This is very tedious and not very effective.
- In ASP, you had to stop the web server to install a new version of a DLL. DLL'S had to be registered in the registry to be available for use in an application. Moreover, the DLL registration process is a very complex one.

#### **Advantage of ASP.NET**

- ASP.NET supports strongly typed languages like VB, c#, and much more.
- ASP.NET pages get compiled instead of being interpreted, thus their execution speed is faster than ASP pages.
- ASP.NET pages are tidier than ASP pages. The code can be separated from the HTML design and text. Thus, programmers can work separately from the designers.

- ASP.NET provides server controls that are declarative. You just have to declare them and you can use them. Thus, the number of lines of code to be written is reused.
- ASP.NET supports re-use of code by the mechanism of inheritance. For example, you can inherit c# classes and use them to provide the required functionality.
- ASP.NET has an inbuilt method called Trace, which helps you in debugging a page. You can either display the trace information at the end of the page or re-direct it to another location to check later.

## **Features of ASP.NET**

- ASP.NET can recognize the type of browser the client is using and accordingly display the content to the client. For example, if the client uses an uplevel browser (ie> 4.0 version), then the validation is performed on the client –side and on the server-side. However, if the client is using a downlevel browser, then the validation is performed only on the server-side.
- ASP.NET improves performance by using server-side caching. It allows you to cache the entire output of a page for re-use by other clients.
- ASP.NET functionality can be coded using different languages like C# or VB.NET. However, only one language can be used for coding in a single page.
- ASP.NET ships with many built –in server controls that have the common required functionalities. For example, the developer need not create a control for accepting data; the textbox control is provided for this purpose. Thus, the developer need not to recreate these controls to obtain the required functionality.
- A web service can be described as a function that can be deployed over the web and can be called by any application or other services. It can be a business application or a system function. ASP.NET allows you to create such web services.

## **Minimum Requirements**

The software requirements to successfully run all the programs are

- Operating System - Windows 7, Windows XP.
- Microsoft IIS WEB server 5.0
- SQL Server 2005
- Visual Studio 2005

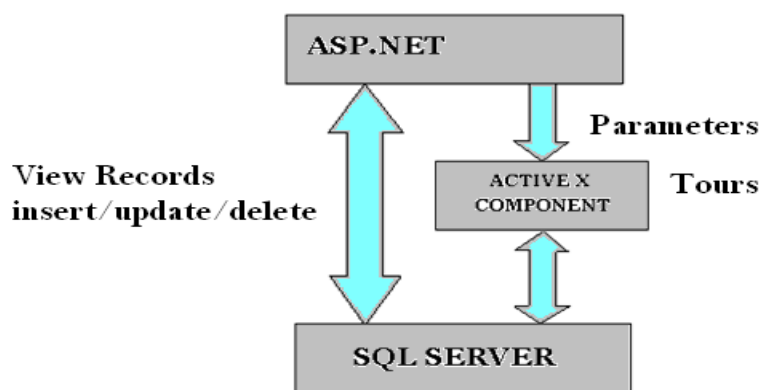
## Database Tables

The following tables were created for the application:

Table Name	Description
Train details	Store details of each train
Booking	Stores details of user and particular train
Bank	Stores the details of all banking information of user while booking a ticket.

## High-level Diagram

Following is a high-level diagram depicting the overall working of the system:



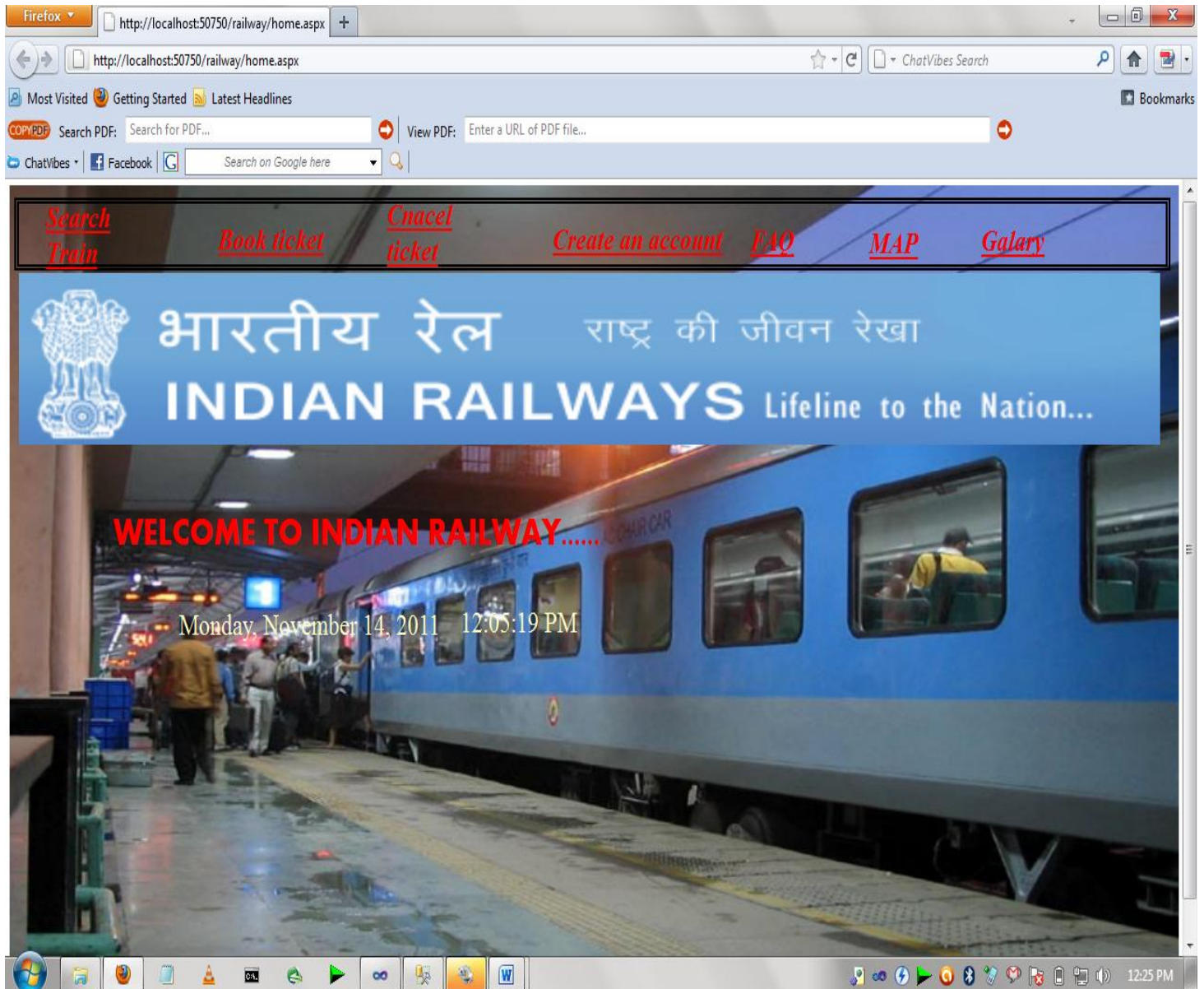
## Basic System Architectural Design

### The system has a three level architecture:

- The first level (front end) uses ASP.NET technology with C# at the code end, to provide the users with the front-end.
- The lower lever (back end) uses MS SQL Server to house the database.
- The middle level comes into play only when Available tours are to be searched. This is achieved through the use of Active X Components (Data Grid). This picks up the requisite data from the database (depending upon the tours available and any other required conditions) and uses them to show the available tours.

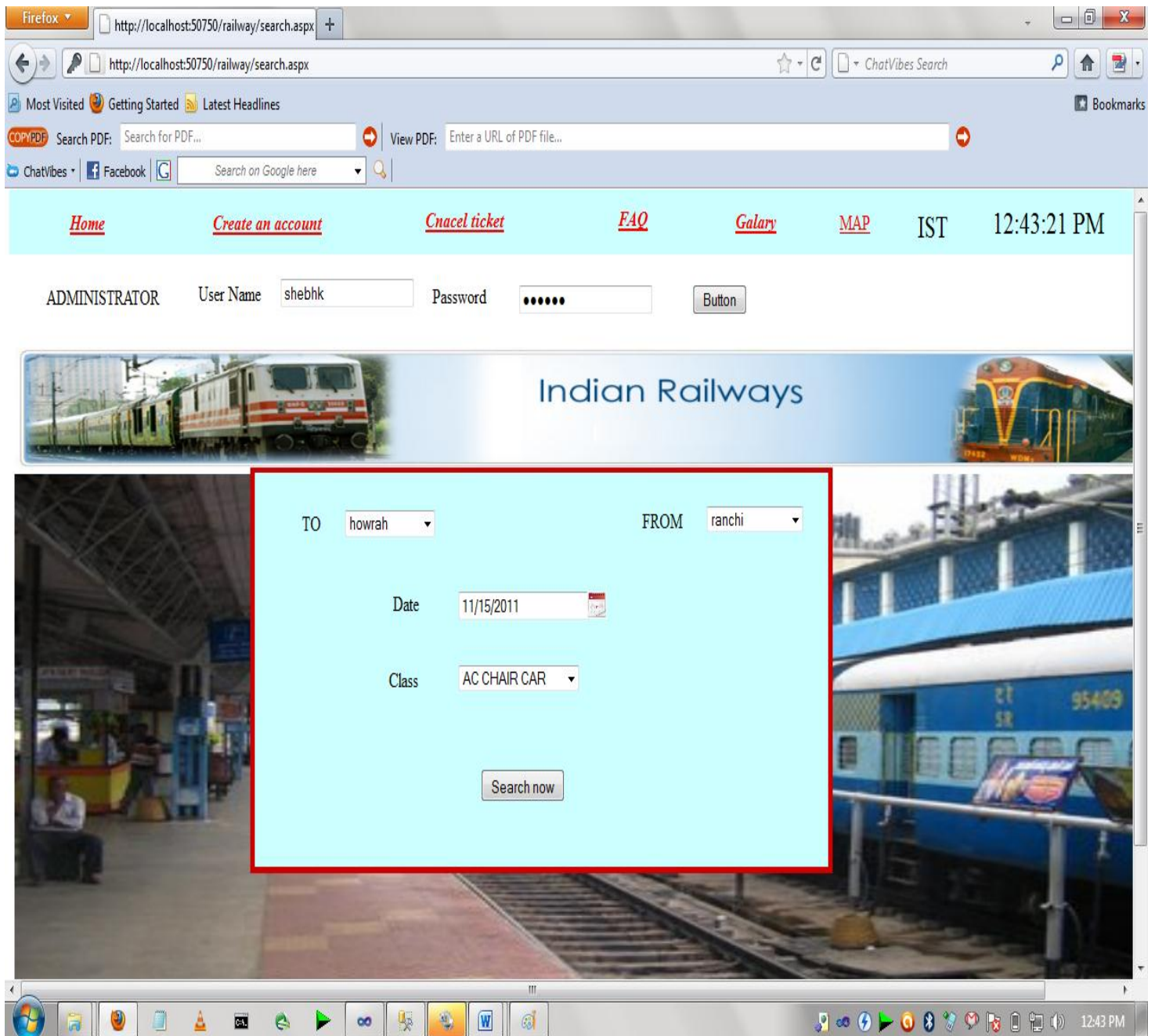
After starting the web application this is the front page.





### HOME PAGE.

For searching the train user should enter the source(to) and destination(from),date and class in which the the user want to go.To press the “search now” user can know the train details.

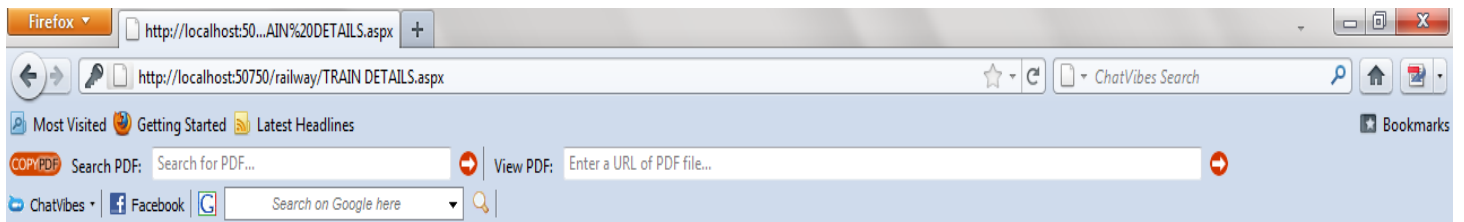


## SEARCH TRAIN PAGE.

There is another part of that page which is ADMINISTRATOR ,by which administrator can modify the train deatails.

Here user find the train detail and to press the “book ticket” option for booking the ticket.





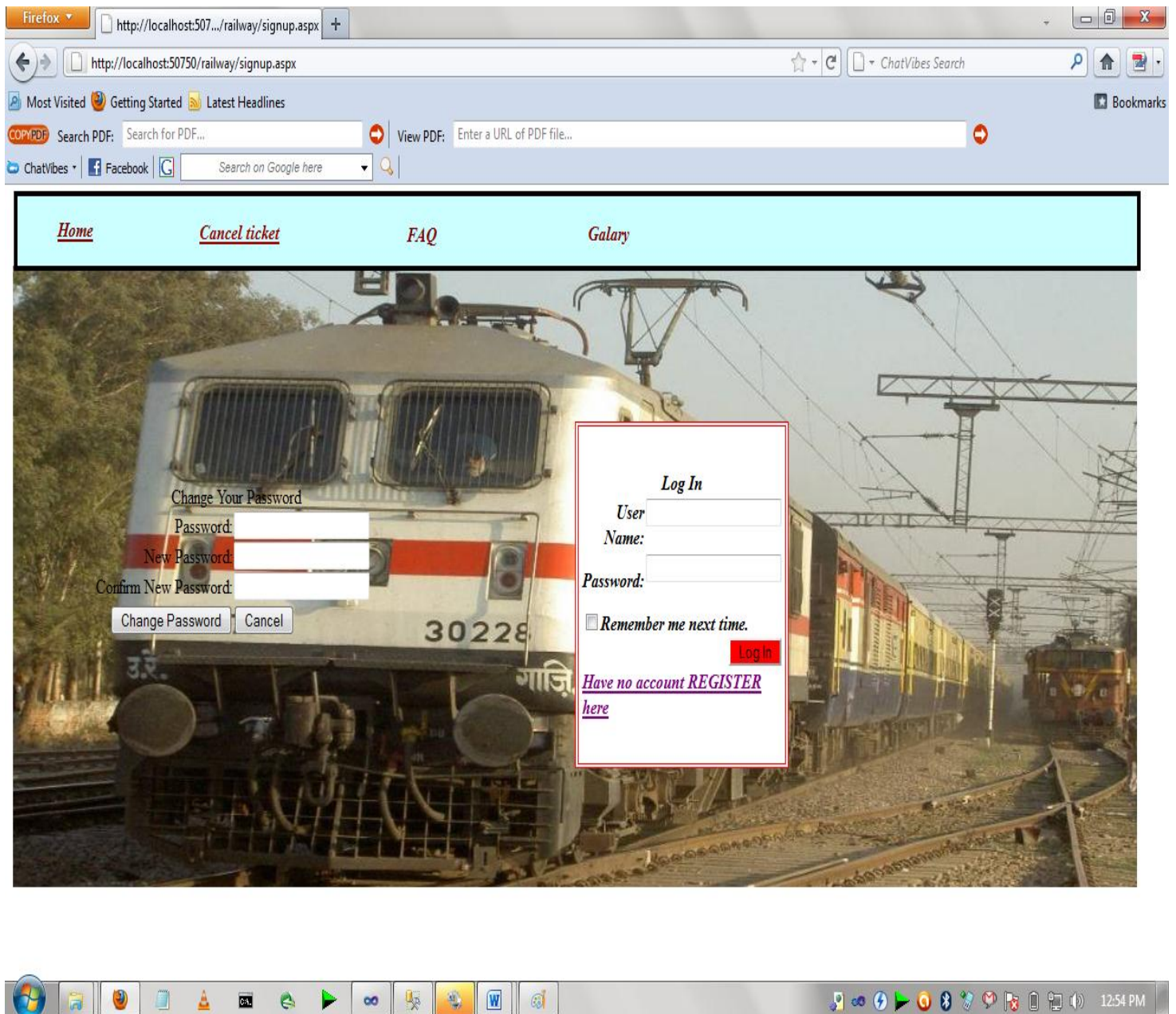
#### TRAIN DEATAIL

	TRAIN NO	TRAIN NAME	FARE	ARRIVAL TIME	DEPARTURE TIME	TOTAL SEAT	CLASS	SOURCE	DESTINATION	DATE
<a href="#">book ticket</a>	12019	SATABDI EXP	645	13:10	6:05	100	AC CHAIR CAR	howrah	ranchi	
<a href="#">book ticket</a>	18617	HOWRAH HATIA EXP	496	22:20	7:05	300	AC CHAIR CAR	howrah	ranchi	16/7/1011
<a href="#">book ticket</a>	18627	INTERCITY EXP	395	22:15	14:15	150	AC CHAIR CAR	howrah	ranchi	15/7/2011



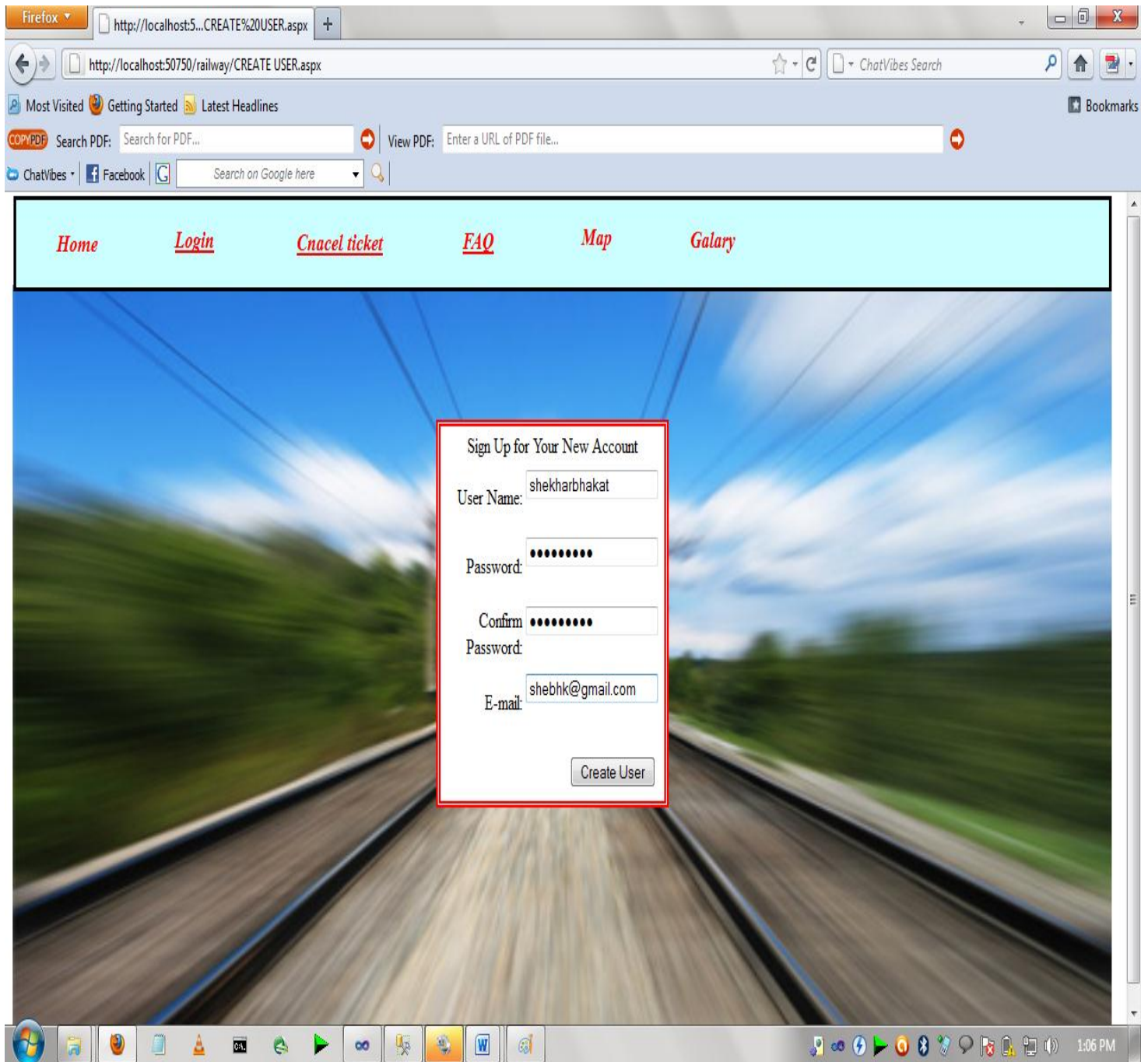
#### TRAIN DETAILS PAGE.

To book a ticket a user first login with user name and password and if user forget his password then there is a another option to change the password.



## LOG IN PAGE.

For a new user there is a hyperlink by which user can create a new account.



CREATE USER PAGE.

After login this page is open and in this page there are two parts one is TRAIN INFORMATION which is automatically comes from the train details page and other part is PERSONAL DETAILS which is filled by user.



Firefox | http://localhost:507...railway/booking.aspx

http://localhost:50750/railway/booking.aspx

Most Visited | Getting Started | Latest Headlines

Search PDF: Search for PDF... | View PDF: Enter a URL of PDF file...

ChatVibes | Facebook | Search on Google here

**TRAIN INFORMATION...**

**TRAIN NAME** SATABDI EXP

**TRAIN NO** 12019

**SOURCE** howrah

**DESTINATION** ranchi

**CLASS** AC CHAIR CAR

**SEAT REQUIRED** 4 *Seat Available*

**TOTAL FARE** 2580

**ARRIVAL TIME** 13:10

**DEPARTURE TIME** 6:05

**DATE** &nbsp;

**PERSONAL DETAILS...**

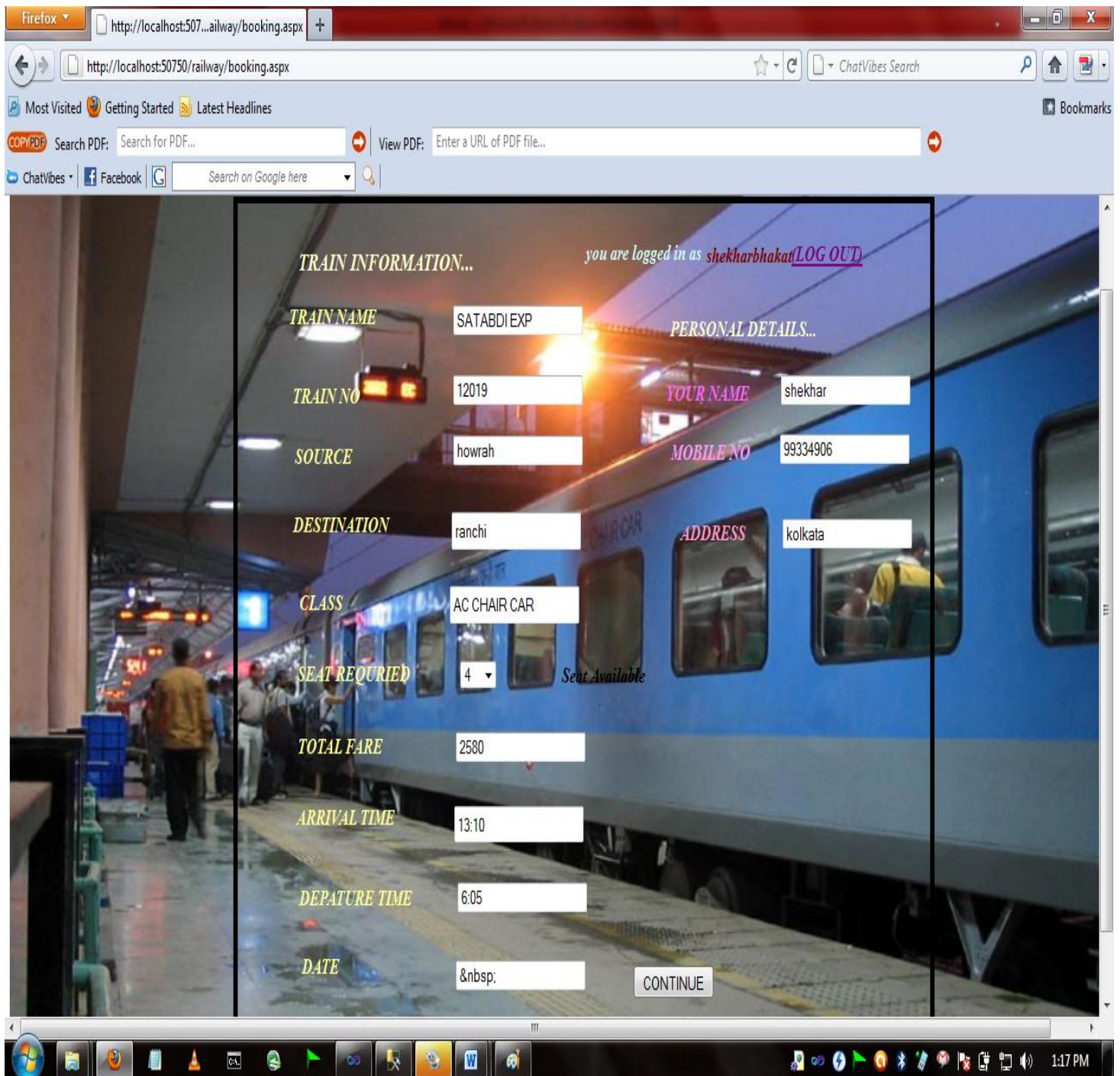
**YOUR NAME** shekhar

**MOBILE NO** 99334906

**ADDRESS** kolkata

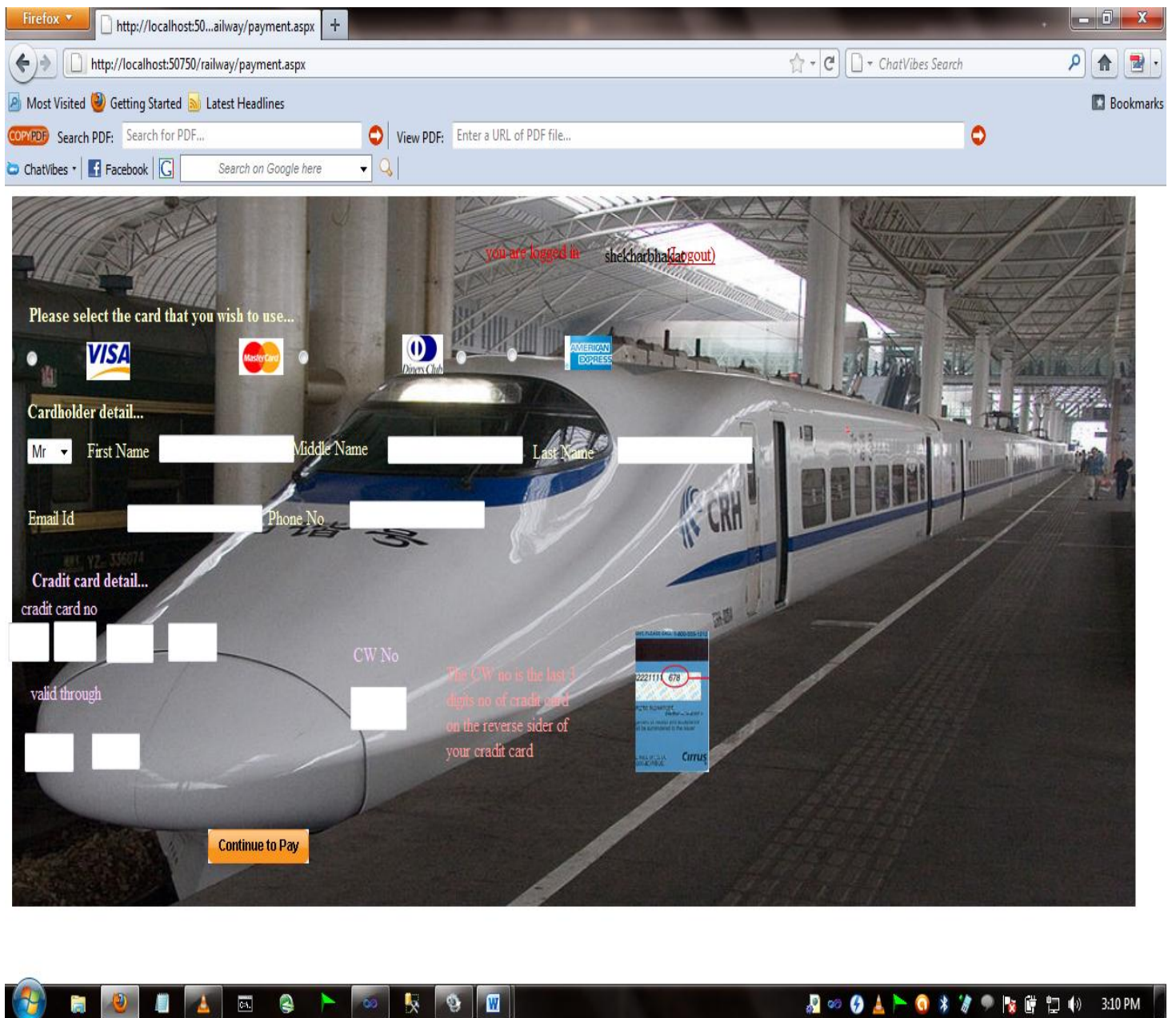
you are logged in as shekharbhakat [LOG OUT](#)

**CONTINUE**



## TICKET BOOKING FORM PAGE.

To press the continue option user would go to the payment page.

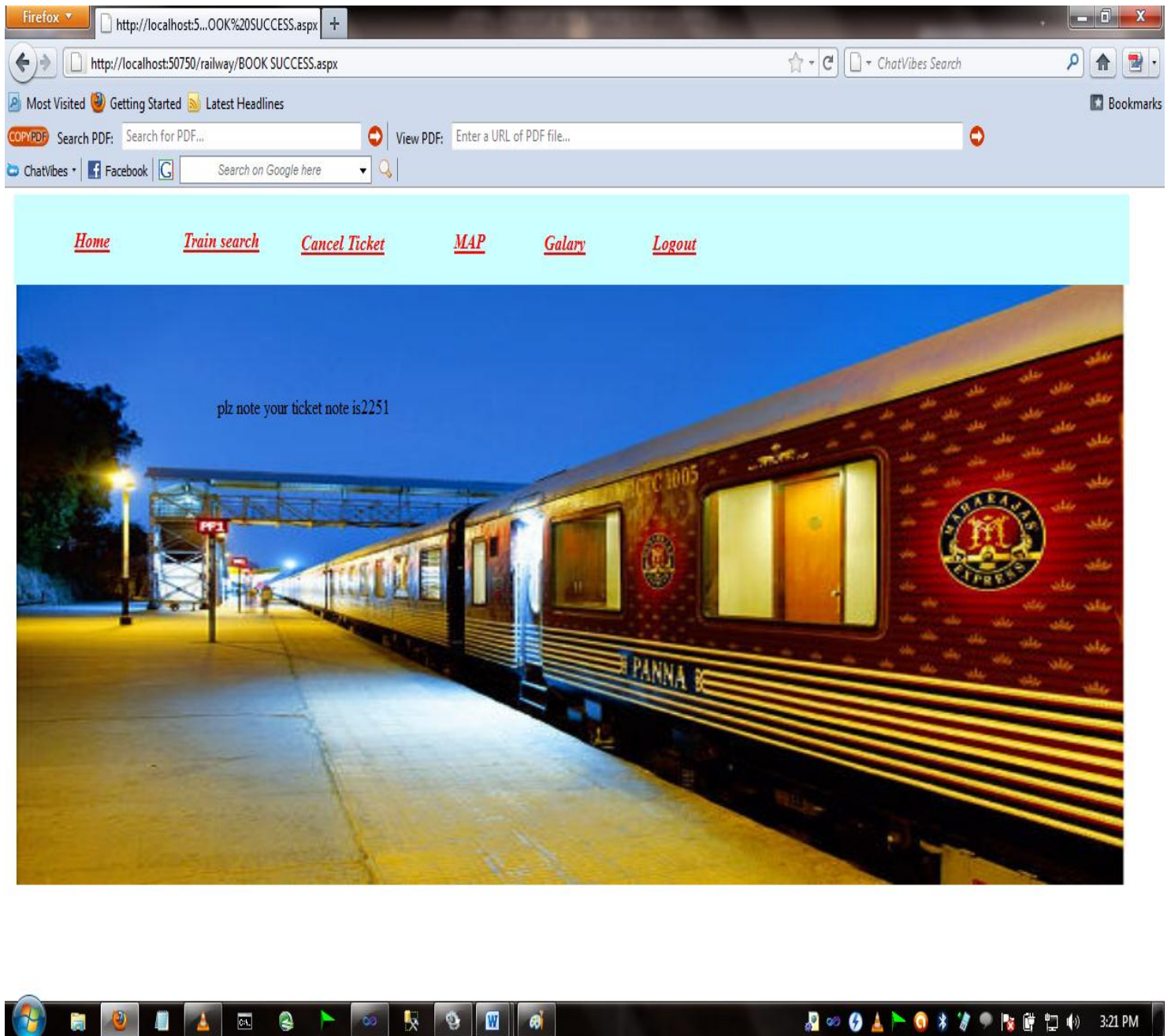


## PAYMENT PAGE.

Here user should fill up all the necessary details of personal and card that he wants to use to book a ticket.



After filling up all the information in the payment page user press the “continue to pay” button and the following page is coming.



### TICKET NO PAGE.

In this page user find his ticket no.

If the user wants to cancel the ticket then he/she press the cancel ticket option to cancel the ticket .In that case user should fill the name and ticket no to find the train and then click the cancel ticket hyperlink which delete the ticket from the datadase.

Firefox

Most Visited

Search PDF:

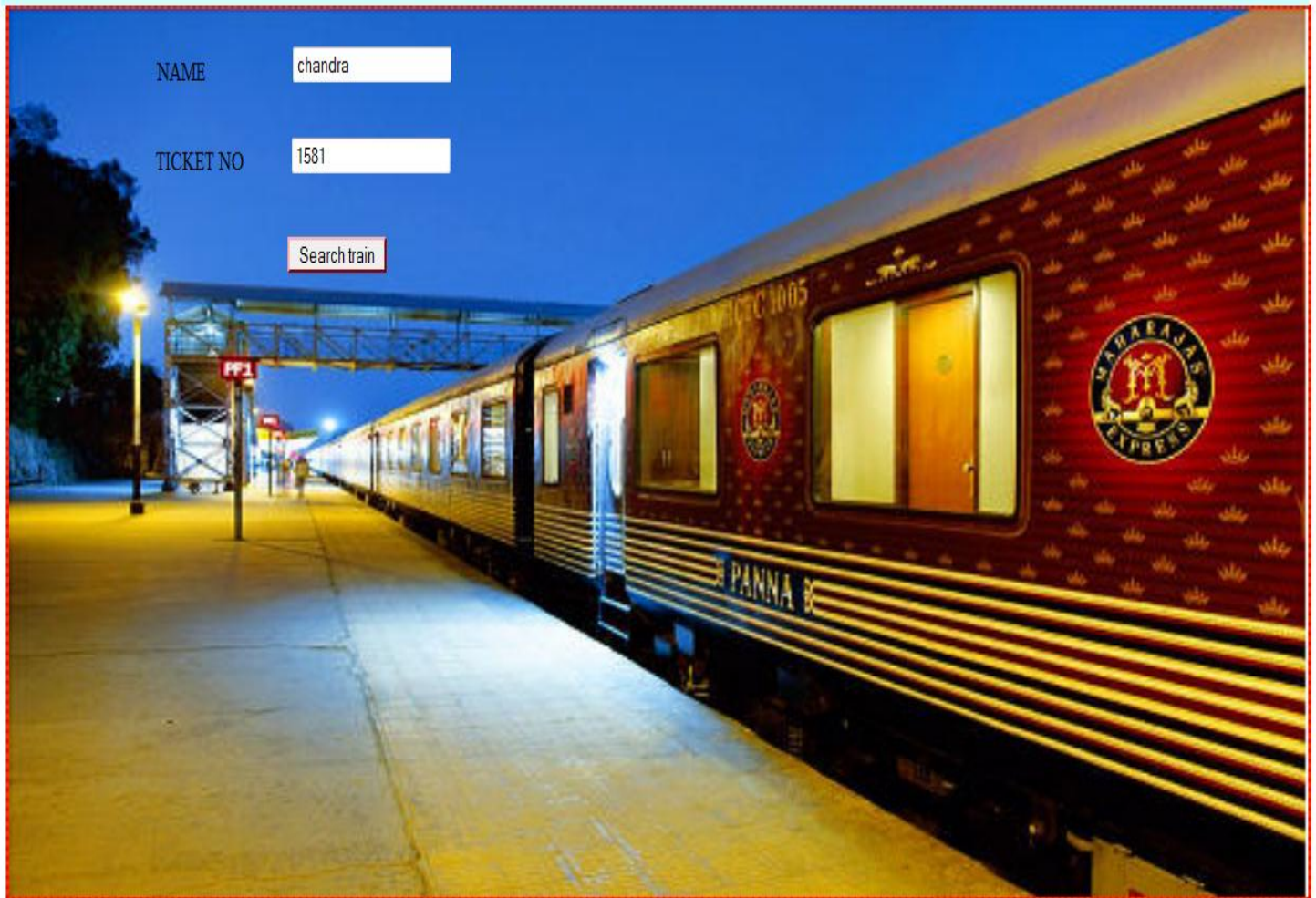
[Home](#)

[Search train](#)

[Map](#)

[Galary](#)

[logout](#)





Firefox | http://localhost:49806/railway/cancel.aspx

http://localhost:49806/railway/cancel.aspx

Most Visited | Getting Started | Latest Headlines

COPY PDF | Search PDF: Search for PDF... | View PDF: Enter a URL of PDF file...

ChatVibes | Facebook | Search on Google here

Home | Search train | Map | Gallery | Logout

NAME: chandra

TICKET NO: 1581

Search train

	bookid	train name	train no	source	destination	class	seat required	your name	mobile no	address	arrival time	depature time	total fare	date
<a href="#">cancel ticket</a>	1581	satabdi exp	12343	kolkata	ranchi	FIRST AC	5	chandra	99334906	PURULIA	14	15	2500	7/15/2011

Windows Taskbar: 5:04 PM

There are many pics of hotels clicking on which makes the image larger.

Firefox | Gallery

http://localhost:49806/railway/gallery.html

Most Visited | Getting Started | Latest Headlines

COPY PDF | Search PDF: Search for PDF... | View PDF: Enter a URL of PDF file...

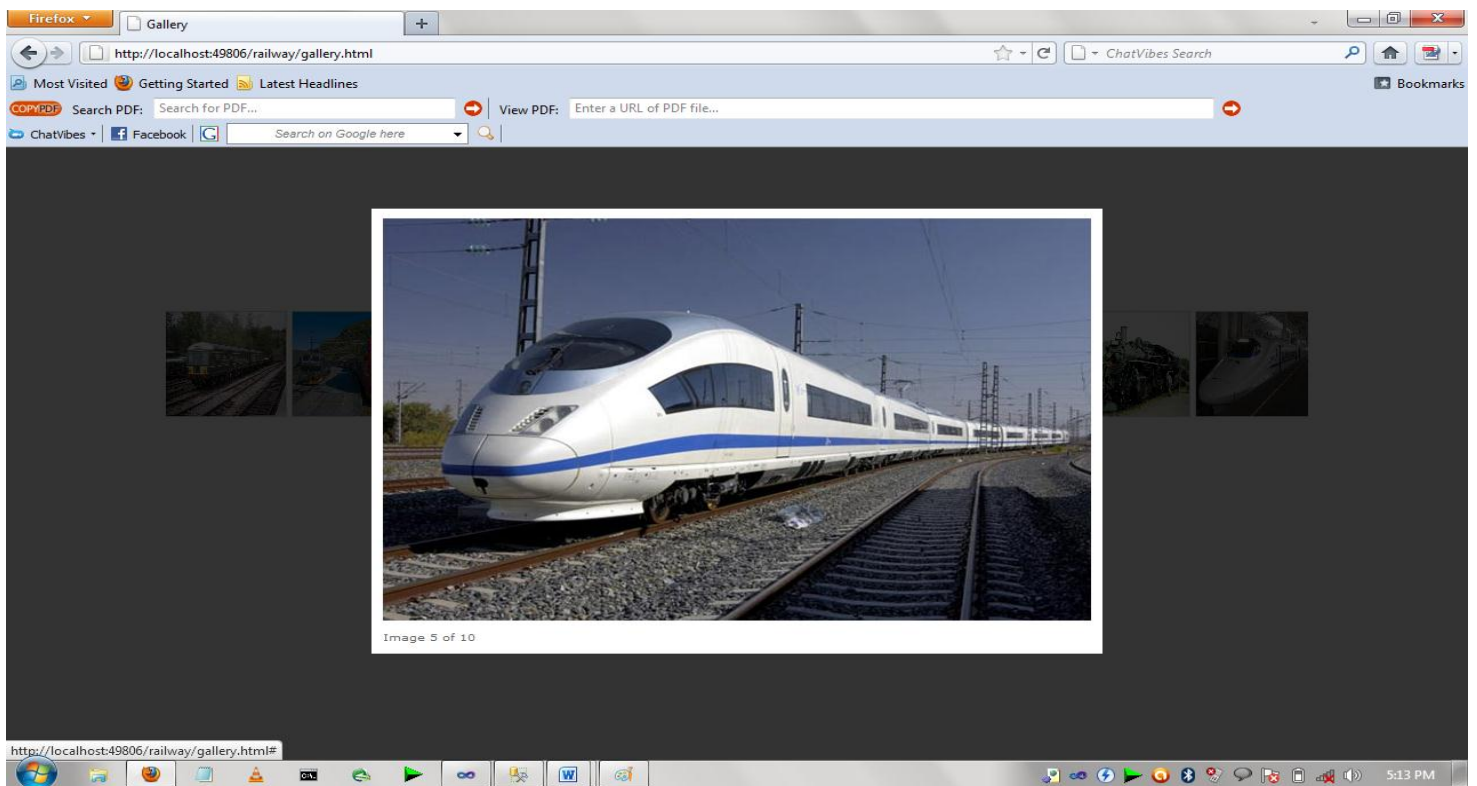
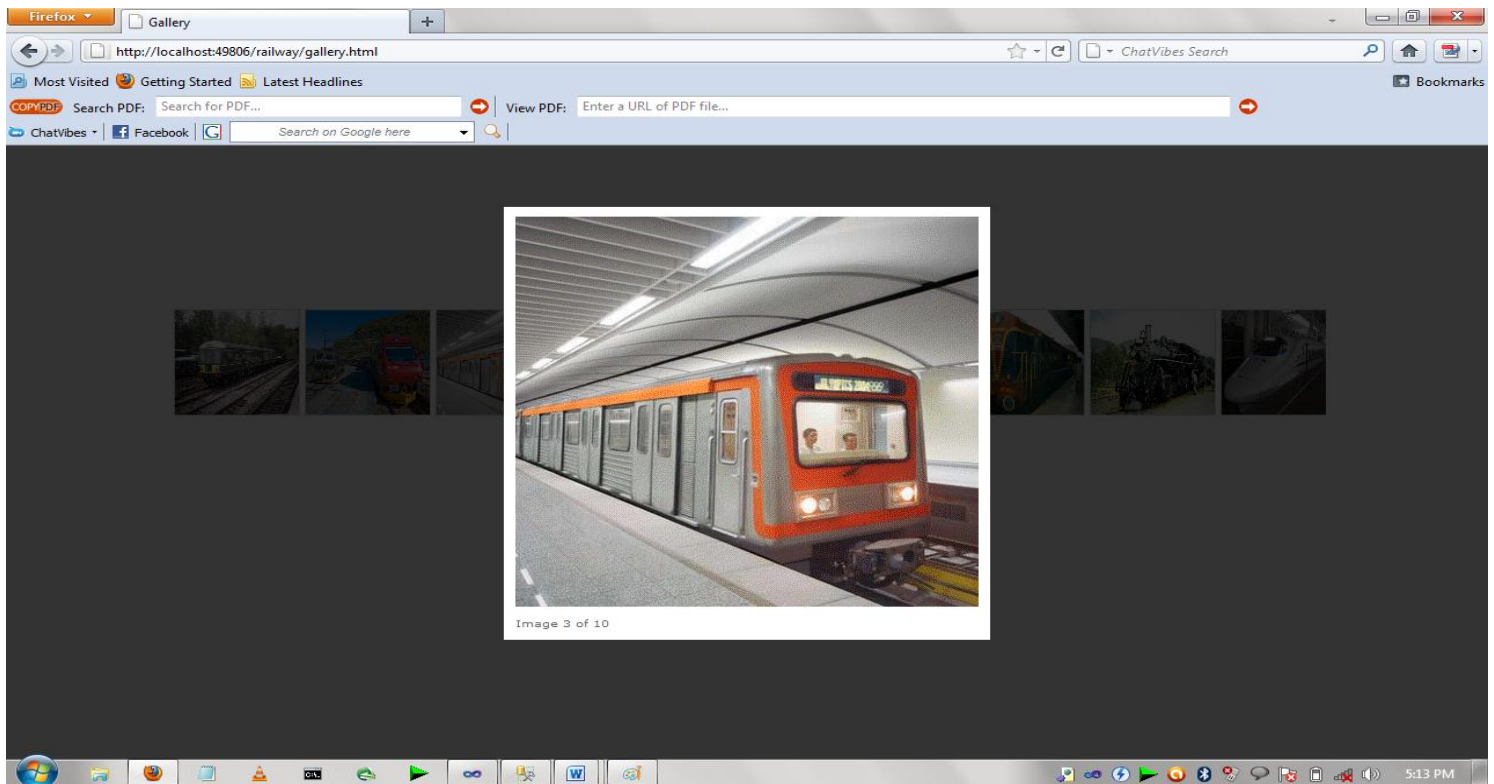
ChatVibes | Facebook | Search on Google here



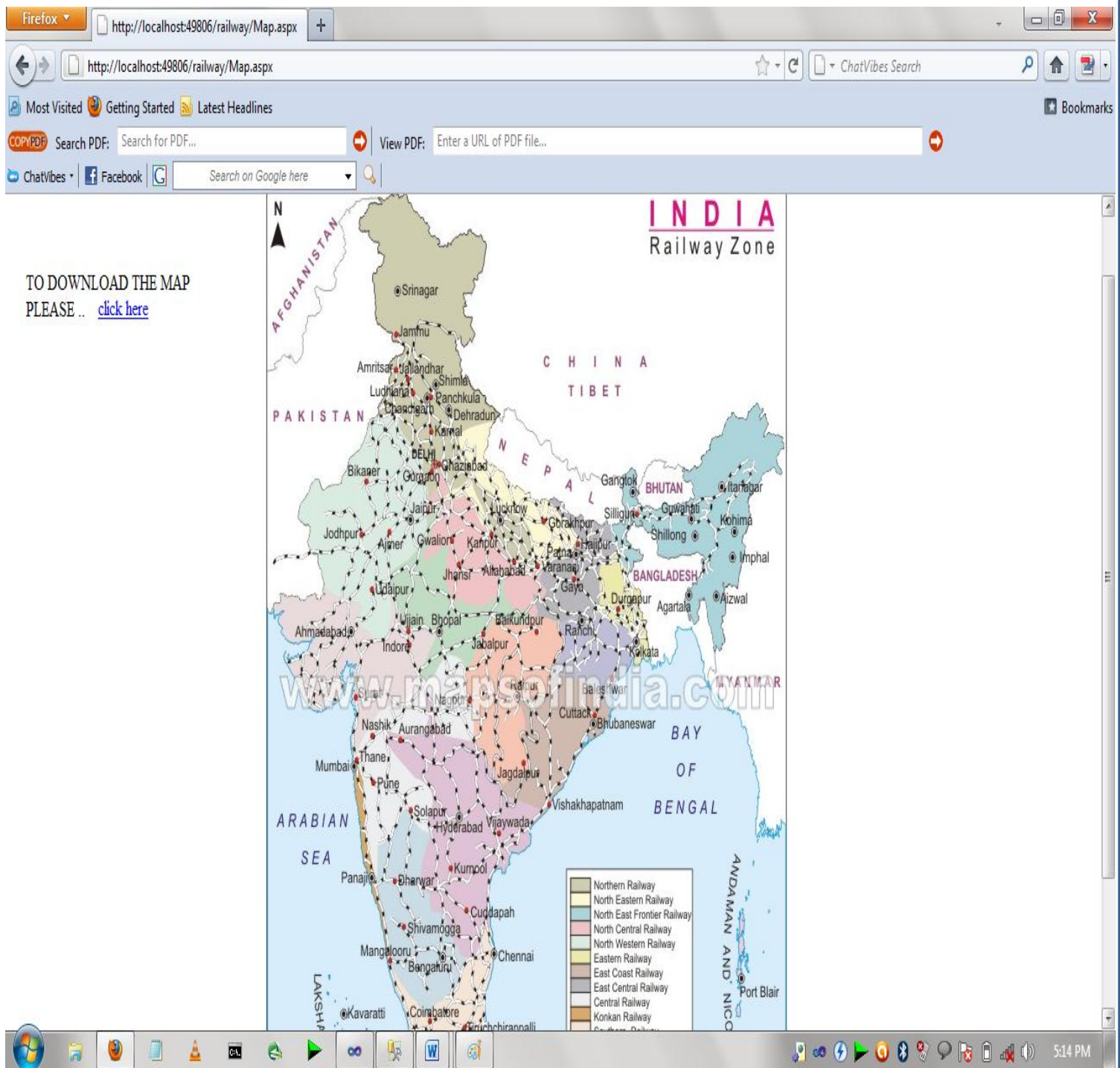
Image 7 of 10

Windows Taskbar: 5:11 PM



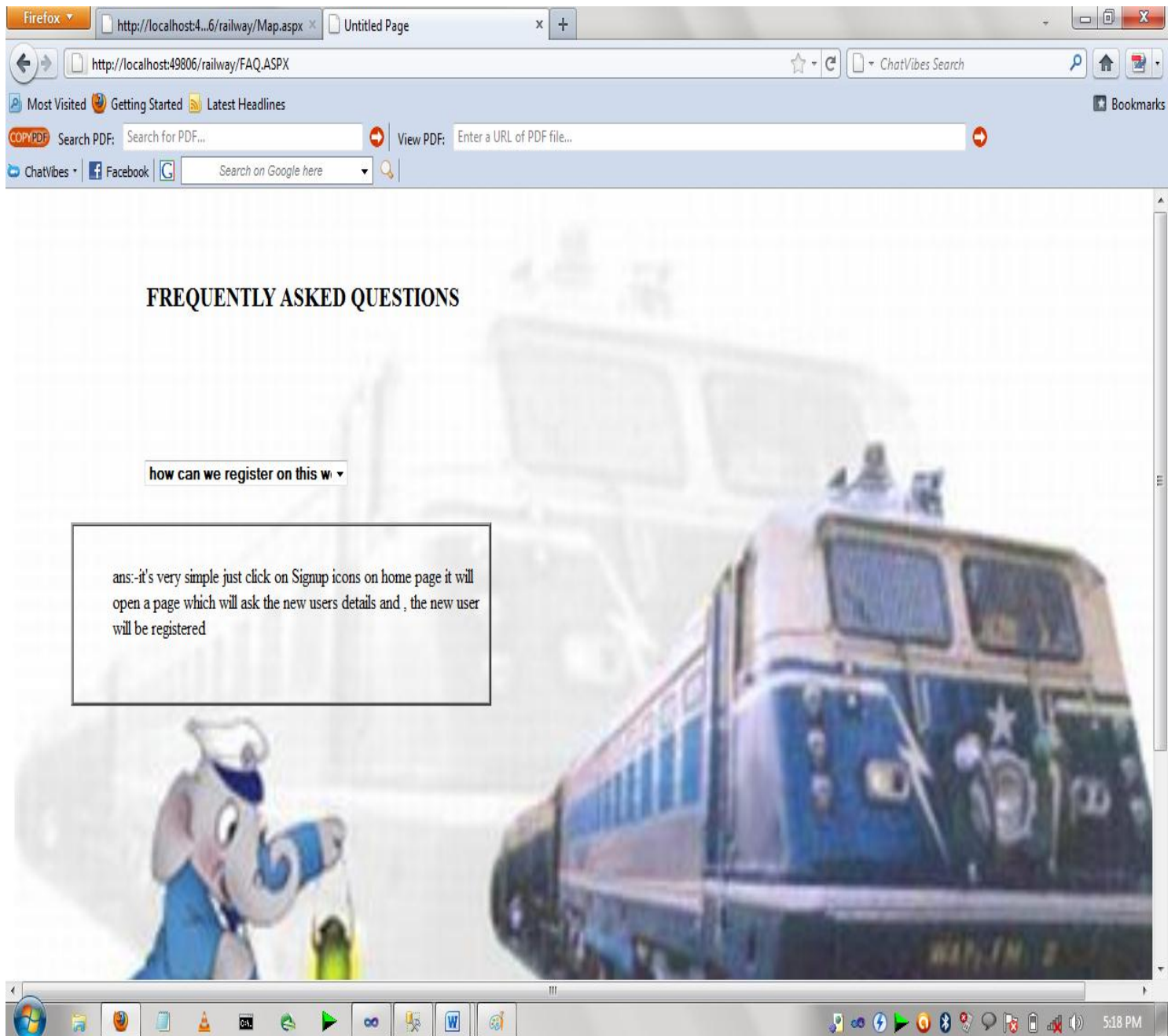


There is another helping window for the user to find the railway route across the country. Here also have a download link to download the map.



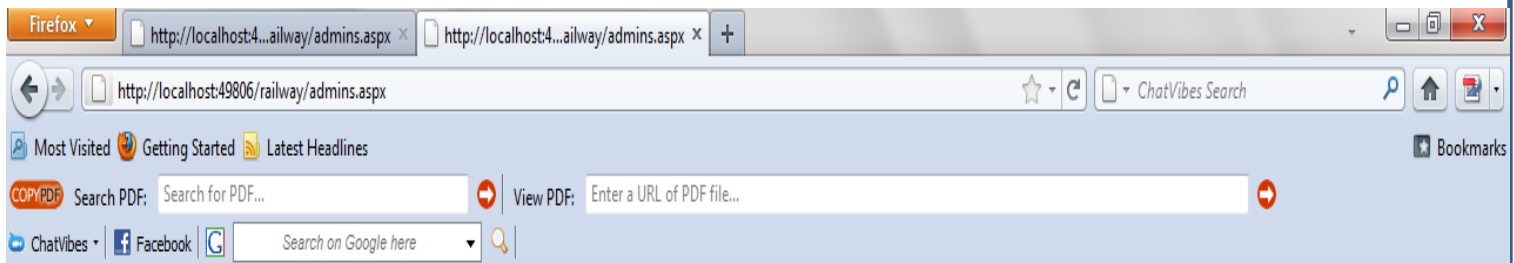
## MAP PAGE.

.Here is a FAQ section where user asked some important question and the site automatically generate the answare.



FAQ page.

For the administrator use this page will open.Only admin can open this page .



TRAIN NO	12019
TRAIN NAME	SATABDI EXP
FARE	645
ARRIVAL TIME	13:10
DEPARTURE TIME	6:05
TOTAL SEAT	100
CLASS	AC CHAIR CAR
SOURCE	howrah
DESTINATION	ranchi
DATE	
<a href="#">Update</a> <a href="#">Cancel</a>	
1 2 3 4 5 6 7	



ADMINISTRATOR EDITING PAGE.



## 5. Results and Discussions

### 5.1 Test Results

#### 5.1.1 Unit Tests

Starting from the bottom the first test level is "Unit Testing". It involves checking that each feature specified in the "Component Design" has been implemented in the component.

In theory an independent tester should do this, but in practice the developer usually does it, as they are the only people who understand how a component works. The problem with a component is that it performs only a small part of the functionality of a system, and it relies on co-operating with other parts of the system, which may not have been built yet. To overcome this, the developer either builds, or uses special software to trick the component into believe it is working in a fully functional system.

**The summary of unit tests is provided below:**

**For User:**

UNIT	PURPOSE	VERIFIED
Search Train	This unit search the trains.	Yes
Train details	This unit shows the trains of a particular source to destination in a particular date and a specific seat .	Yes
Book ticket.	This unit user can select a particular train and book ticket .	Yes
Login.	This unit login the registered user and create an account for a new user.	Yes
Fill the booking form.	User fill the form to book ticket.	Yes
payment.	User fill the form and pay the money with the help of credit card.	Yes
Ticket no	This unit allows to show his ticket no.	Yes
Cancel ticket	This unit allows user to cancel ticket.	Yes

**For Administrator**

UNIT	PURPOSE	VERIFIED
Administrator Login	This unit detects the authorization of the Administrator.	Yes
Change the train details	This unit allows the administrator to change the train details.	Yes


## Integration Testing

As the components are constructed and tested they are then linked together to check if they work with each other. It is a fact that two components that have passed all their tests, when connected to each other produce one new component full of faults. These tests can be done by specialists, or by the developers.

Integration Testing is not focused on what the components are doing but on how they communicate with each other, as specified in the "System Design". The "System Design" defines relationships between components.

The tests are organized to check all the interfaces, until all the components have been built and interfaced to each other producing the whole system.

Thus this test was successfully done. No conflicts or inconsistencies were detected.

## System Testing

Once the entire system has been built then it has to be tested against the "System Specification" to check if it delivers the features required. It is still developer focused, although specialist developers known as systems testers are normally employed to do it. In essence System Testing is not about checking the individual parts of the design, but about checking the system as a whole. In fact it is one giant component.

System testing can involve a number of specialist types of test to see if all the functional and non - functional requirements have been met. In addition to functional requirements these may include the following types of testing for the

non - functional requirements:

- Performance - Are the performance criteria met?
- Volume - Can large volumes of information be handled?
- Stress - Can peak volumes of information be handled?
- Documentation - Is the documentation usable for the system?
- Robustness - Does the system remain stable under adverse circumstances?

The system was found to perform its function properly under all conditions.

## Acceptance Testing

Acceptance Testing checks the system against the "Requirements". It is similar to systems testing in that the whole system is checked but the important difference is the change in focus:

Systems testing checks that the system that was specified has been delivered. Acceptance Testing checks that the system will deliver what was requested.

The customer should always do acceptance testing and not the developer. The customer knows what is required from the system to achieve value in the business and is the only person qualified to make that judgment. This testing is more of getting the answer for whether the software delivered is as defined by the customer. It's like getting a green flag from the customer that the software is up to the expectation and ready to be used.

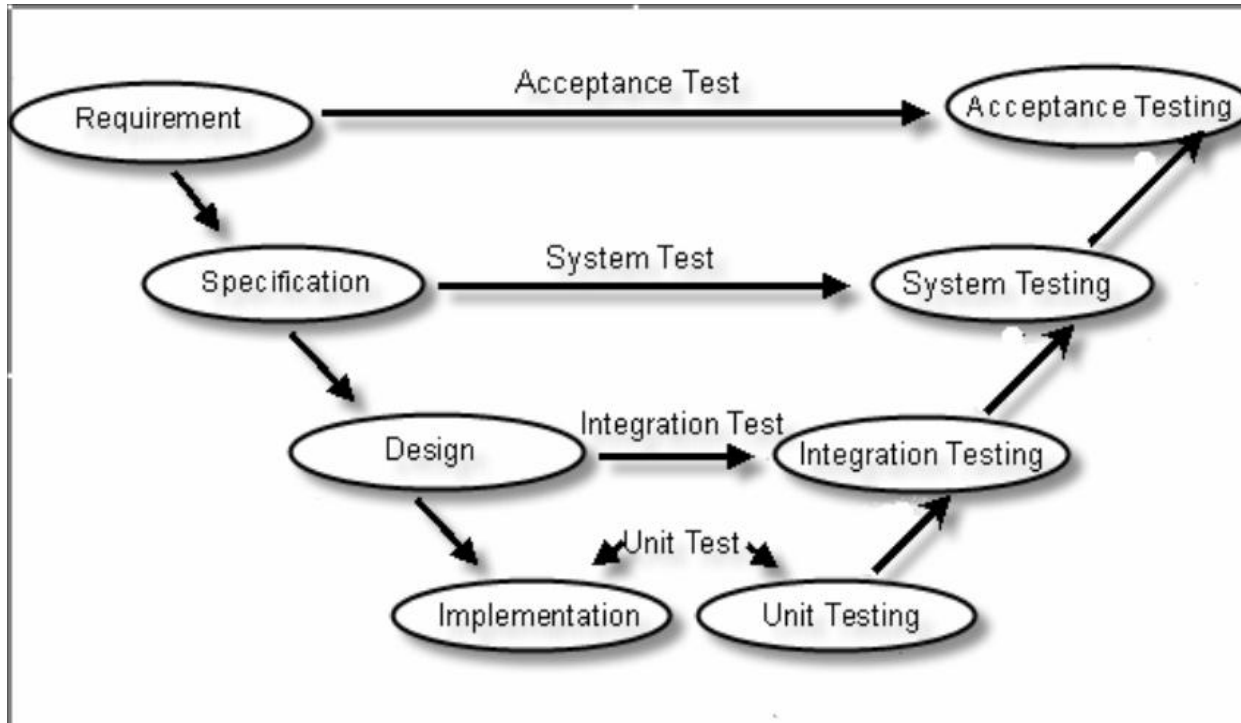


Figure 1.4: - V model cycle flow

### 5.1.2 Result

Online railway ticket reservation system was successfully designed and developed as per the specifications. It was extensively tested using a database which contains data similar to what can be expected in an actual database. The system was found to work satisfactorily without any errors under all conditions.

## **6. Summary and Conclusions**

### **6.1 Summary of Achievements**

The following achievements were made during the project:

- We had the opportunity to learn a new technology ASP.net
- Learned to work in visual studio 2010.
- We learned to handle a project efficiently and correctly.
- Learned to tackle various adverse situations while managing and developing software.
- Learning about the functioning of the IT industry and work ethics in the corporate world.
- Learning to work with C#.NET and MS SQL Server 2005.
- Learning about the different phases of software development and the software engineering processes involved in the development of software.

### **6.2 Main difficulties encountered**

- The main difficulty that was encountered during this project was that we had to learn a new technology ASP.net as well as a new language C# with which we were not at all familiar with earlier .
- Time constraint.
- Learning the use of triggers.

### **6.3 Limitations of the Project**

- Print ticket option is not provided here.
- Ajax could not be used.



## 7. BIBLIOGRAPHY

### Website

- [Dynamicdrive.com](http://Dynamicdrive.com)
- [Freecsstemplates.com](http://Freecsstemplates.com)

### Books

- Microsoft Official Custom Workshop
- ASP.NET The Complete Reference\_(Herbert Schild)
- Microsoft ASP training kit 2.0 framework(70-528)
- Database Management System,Rameez Elmasri & Shamkant Navathe.









