Mini Project Report

on

MULTIPLEX THEATER ONLINE BOOKING SYSTEM

Submitted by

SREEJESH.P.V

RAMEEZ.E.A

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NIJIN RAJ.A

in partial fulfilment for the award of the Degree

of

B. TECH DEGREE

in

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Division of Computer Engineering
School of Engineering
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CERTIFICATE

Certified that this is a bonafide record of the project work titled

MULTIPLEX THEATER ONLINE BOOKING SYSTEM

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of VI semester Computer Science & Engineering in the year 2014 in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Computer Science & Engineering of Cochin University of Science & Technology

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Head of the Division

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Rameez E.A
Sreejesh.P.V
Nijin Raj.A
Yaseen Ashraf.U.T

ABSTRACT

Our project basically manages the ticket booking process of a multiplex, providing an interface to the user to book movie tickets in a more easy way. At the front end we have used PHP and at the back end My SQL server. The project proceeds through a sequence of well-designed forms provided with validations to ensure consistency, reliability and most importantly correctness of information fed into the database.

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Chapter 1

INTRODUCTION

1.1 OBJECTIVES

Cinema-going is one of the most popular out-of-home cultural activities, affecting a serious of social, economic and cultural phenomena in modern societies. Cinemas are considered to be an integral part of cities and they contribute to the definition of a local geography and identity. They also contribute to the preservation of the collective memory, since they constitute a significant social and cultural practice linked to a specific place, which acts as a common reference or landmark for many individuals.

Through this project we present a comprehensive solution for ticket booking in multiplexes. Theater management system, an online ticket selling software that is easy to understand, easy to use and offers the simplicity of fast point-and-click service to the customers.

This powerful software program is specifically designed for theater owners, to sell tickets online. This intuitive visual interface makes day-to-day aspects of selling, exchanging, refunding, and reporting fast and easy for both the user and administrators. Theater management controls all back-end functionalities like, movie details, ticket rate and show time, customer information and sales history saved in a database, etc. Theater admin manages the report details like counter wise report, daily, weekly, monthly report and movie report etc.

1.2 LIMITATIONS

Our project has the following limitations:-

1. In this system the customer will not select seat number. The authorized people in this process will be the employee who works at the cinema.
2. In this system the customer can book the tickets only for the present day. Advanced booking for the upcoming movies (2 or 3 months before the movie is released) is not included but can be included later.
3. Also, a printing system will not be in this project. In future, a ticket printing system can be integrated.
4. The customers who have booked the tickets must reach the multiplex 30 minutes prior to the show time or else ticket will get cancelled.

CHAPTER 2

STUDY OF EXISTING SYSTEM

For studying the existing system on ticket booking, we conducted a case study on a major ticket booking venture present today in India.

2.1 A case study on KVR Cinemas:-

An Online Ordering, Payment And Loyalty Management Solution For Krishna Village Roadshow (KVR) Cinemas

KVR Cinemas has broken many national records in field of cinema exhibition. Their theatres, the first chains of multiplexes in the country, boast of the highest box office collections in India for 5 consecutive years. The cumulative admissions till date have exceeded more than 6 million movie goers.

KVR Cinemas is a brand name synonymous with state-of-the-art cinema exhibition in India. It started operations as a joint venture between Krishna Exhibitors and Village Roadshow Pictures, one of the world's largest media distribution conglomerates. KVR Cinemas specializes in developing and operating state-of-the-art Multiplexes and has been a pioneer in multiplex development by setting up India's first - KVR Anupam 4, at Saket in city of Delhi. Over the last three years, KVR Cinemas has established itself as a very strong brand associated with movies, quality exhibition, food and youth targeted promotions. The company presently has 4 multiplex theatres with 12 screens in the city of Delhi with another 7 screen theatre under construction in city of

Gurgaon, which is the fastest growing suburb in India. By attracting a record number of urban middle & upper income consumers to the complex, major national & international brands - have opened their outlets in the multiplexes, making KVR the destination for complete family entertainment.

Situation

Faced with an increasing number of customers standing in long queues outside their theatres, KVR faced the challenge of providing "Customer Delight". Customers desperately wanted a easy way of ordering and paying for their tickets without the delays and inconvenience of standing in long queues.KVR needed a mechanism to administer their loyalty program "The KVR Movie Club", as well as provide for other promotional and membership services to help partners maximize their presence at the multiplexes. KVR Cinemas had introduced phone booking but it was not to prove viable, as customers were often "no-shows", leading to un-sold seats. This affected business profits.

Solution

1. Movie Ticket Booking over the Internet

In response to the KVR Cinemas requirements, we proposed an Ebusiness solution using Microsoft Platform which would enable movie goers to book their tickets electronically over the Internet from the comfort of their office or home. With the advent of the modern age, the typical user didn't have enough time to stand in line outside the theaters. The online solution allows users to select their

shows, book and pay for their tickets. This guarantees them a ticket even before they arrive at the cinema hall.

2. Secure electronic booking through bank payment gateway

Customers were provided with a convenient option of booking tickets through the Internet via a secure channel using Verisign SSL (Secure Socket Layer) and for the first-time the customers experienced the advantages of an electronic ordering system. This feature enabled customers to get confirmed tickets online from the web site by making payment using their credit card or debit cards. Trisoft integrated the online transaction seamlessly with the bank Payment Gateway Server.

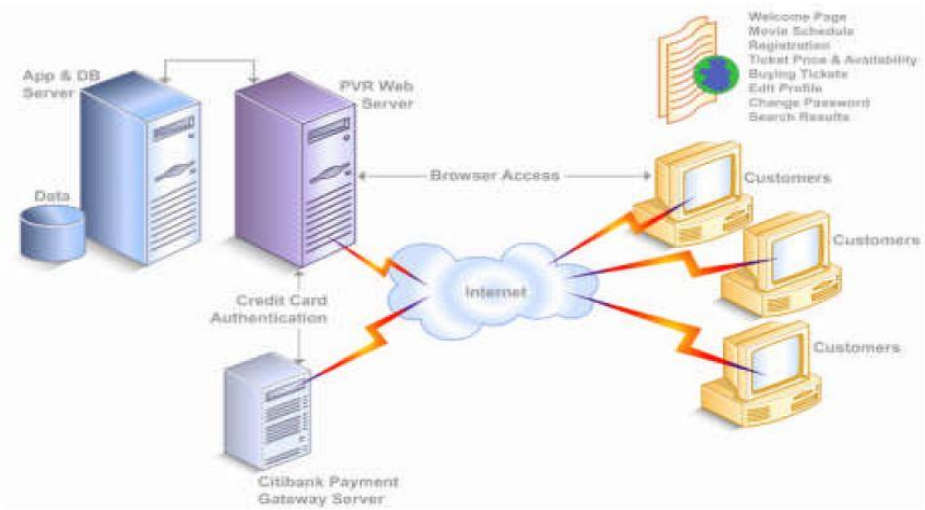

Fig 2.1 Internet booking

In order to market the website to the customers and increase the customer base for online booking, KVR Cinemas introduced the concept of a movie club for those users who register themselves as members. Once a customer becomes a member, they are allowed to buy tickets within minutes using their credit cards and, can participate in contests and win prizes. Members can also subscribe to newsletters containing movie-related events and movie charts.

3. Statement of Account and Payment Reconciliation

The application also provides the facility to generate an end-of-month statement of transactions executed by the system. This helps the KVR staff to reconcile their accounts with the Citibank Payment Gateway and has drastically reduced the time-consuming process of manual reconciliation.

4. The Technology

The website runs on Microsoft Windows 2000 Server and Microsoft SQL Server 2000. It receives more than 200,000 hits a per day and has the capacity to cater to 250 concurrent users at any given time.

Benefits

The movie portal has benefited KVR in many ways out of which a few have been outlaid below:

- Convenient online ticket booking through the Internet, which in turn leads

to more, and repeat customers and shorter queues.

- Access to information and other movie-related promotional news through the newsletters.
- Increased Operational Efficiency through painless transaction reconciliation at the month end.
- Online Brand extension by projecting a tech-savvy image, and appealing to Generation Y consumers who spend a lot of time browsing the Internet.
- The Club Class memberships through the portal have built successful and lasting relationships with customers who are provided with special services like contests, loyalty points and redemption against exciting gifts, home delivery of tickets at a nominal cost, online account maintenance and more.

2.2 Proposed System

We propose a system which is more reliable, entertaining and easy than the present system.

- Our solution targets those users who do not have spare time to stand in queue for booking tickets. We propose an easy way of ordering and paying for the tickets without any delays and inconvenience.
- The people who book tickets are assured of a ticket before going to the theater without their physical presence.
- Customers who book tickets will receive an instant message (m-ticket) in

their mobile phone. By splashing this m-ticket at the counter of multiplex, the customer can get the physical ticket.

- The staff at the multiplex no longer needs complicated manual ticket availability and tracking mechanisms for issuing tickets. The ticket information is stored securely in a database which can be accessed any time for verification.

Chapter 3

DATABASE DESIGN

The database-planning phase begins when a customer requests to develop a database project. It is set of tasks or activities, which decide the resources required in the database development and time limits of different activities.

3.1 SOFTWARE REQUIREMENT SPECIFICATION(SRS)

3.1.1 Collection of Requirements

Requirements analysis is done in order to understand the problem, which is to be solved. That is very important activity for the development of database system. The requirements and the collection analysis phase produce both data requirements and functional requirements. The data requirements are used as a source of database design. The data requirements should be specified in as detailed and complete form as possible.

In parallel with specifying the data requirements, it is useful to specify the known functional requirements of the application. These consist of user-defined operations that will be applied to the database (retrievals and updates). The functional requirements are used as a source of application software design.

The Data-requirements are given as follows :-

User Module

- **User Registration**

- User Register with Name, A Username(for logging in later),Password, Phone Number, E-mail address.

- **User Login**

- User Can Book the Ticket After Log in.
- User Login with User Name and Password.
- Forgot Password use for Retrieve Password.

- **Check Availability**

- After Login, User, Can Search Movie From Movie List.
- User Can Check Ticket Availability.
- User can also check the Movie Running Hours.
- If Ticket is Available User Can Book Ticket.

- **Book Ticket.**

- User can book ticket by specifying username and Phone Number.
- Then Select Number Of Seats to Book.
- A conformation Message will be sent to the Given Number. The content of the message is as shown below:-

“Film name-Random 5 letter Code-Show Time”

Admin Control:

- **Admin User Login.**
- Admin User Login with Admin User Name and Password.
- **Show Manage.**
- Admin Can Change Show Name and Show Time.
- **Movie Mange.**
- Admin Can Add New Movie.
- Admin Can Edit Old Movie Details.
- Admin Can Delete Movie.
- **Schedule Manage.**
- Admin Can Add New Movie Schedule.
- Admin Can Edit Movie Schedule.
- Admin Can Delete Movie Schedule.
- **User Manage**
- Admin Can control the signed up users
- Admin can delete the account of users who didn't show up for the movie after booking tickets.
- **Counter Control**
- Counter Employee Login with Counter User Name and Password..
- Counter Employee type the message shown by the Customer in the field given and confirm the user.
- Tickets are issued from the Counter.

3.1.2 FUNCTIONAL REQUIREMENTS

1. The schedule of the movies will be generated via a query according to the data selected by the user.
2. A way in which users(both customer & admin) can login to the system to perform different operation.
3. A way in which the customer can commit order by “Point and Click” method.
4. The system can verify the data before transaction.

3.1.3 SOFTWARE AND HARDWARE REQUIREMENTS

- Intel core i3 2nd generation is used as processor because it is faster & provide reliable and stable working environment.
- A RAM size of 1gb is used as it will provide fast reading & writing capabilities.

3.2 CONCEPTUAL DESIGN

Once all the requirements have been collected and analyzed, the next step is to create a conceptual schema for the database, using a high-level conceptual data model. This phase is the conceptual design. The result of this phase is an Entity-Relationship (ER) diagram. It is a high-level data model of the specific application area. It describes how different entities (objects, items) are related to each other. It also describes what attributes (properties) each entity has. It includes the definitions of all the concepts (entities, attributes) of the application area.

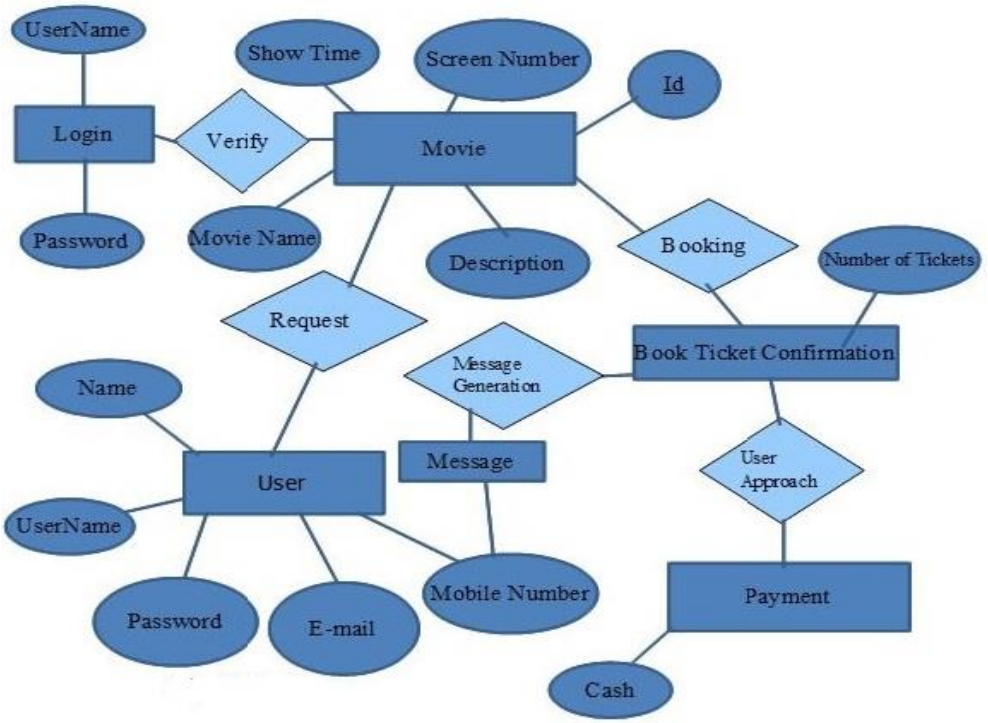

Fig 3.2.1 ER diagram

3.3 Logical Design

There are rules how the ER model or class diagram is transferred to relation schemas. The relation schemas are the basis for table definitions. In this phase (if not done in previous phase) the primary keys and foreign keys are defined.

While preparing the logical design part, we applied relational data model.

To do this, we decided to use MySQL Server.

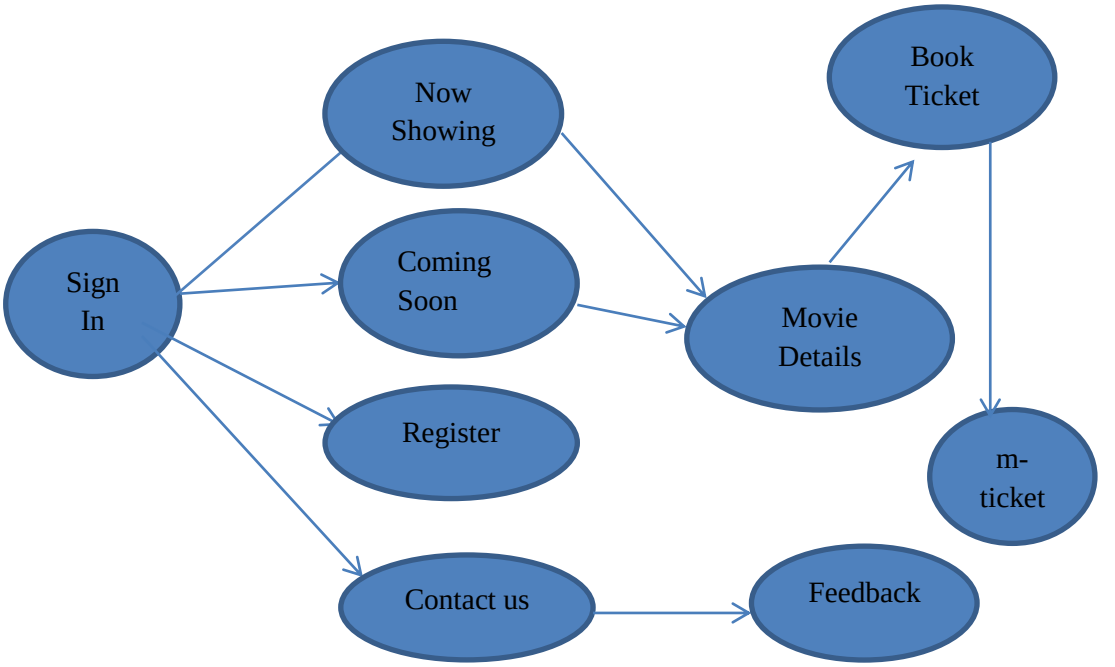

Fig 3.3.1 Data Flow Diagram

Activity Diagrams

1. Booking Tickets

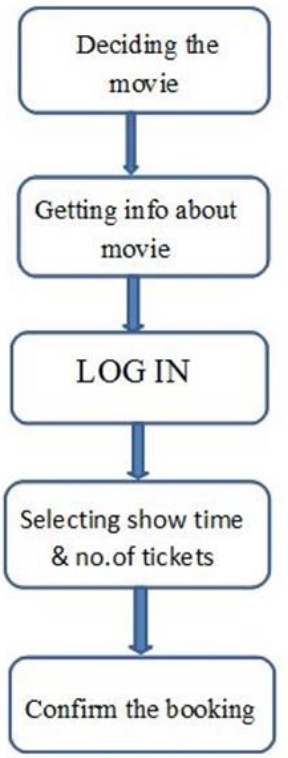

Fig 3.3.2 Activity Diagram 1

2. Issuing Tickets

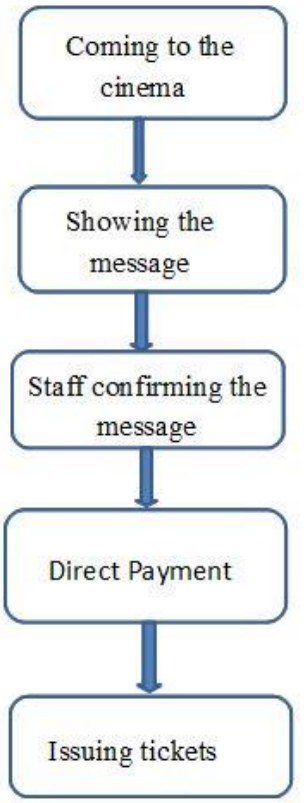

Fig 3.3.3 Activity Diagram 2

3.4 IMPLEMENTATION

The various system tools that have been used in developing both the front end, back end and other tools of the project are being discussed in this chapter.

3.4.1 FRONT END:

JSP, HTML, CSS, JAVA SCRIPTS are utilized to implement the frontend.

Java Server Page (JSP)

Different pages in the applications are designed using jsp. A java sever page component is a type of java servlet that is designed to fulfill the role of a user interface for a java web application. Web development write JSPs as text files that combine HTML or XHTML code, XML elements, and embedded JSP actions and commands. Using JSP, one can collect input from users through web page.

HTML (Hyper Text Markup Language)

HTML is a syntax used to format a text document on the web.

CSS (Cascading Style Sheets)

CSS is a style sheet language used for describing the look and formatting of a document written in a markup language.

Java Script

JS is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, Communicate asynchronously, and alter the document content that is displayed.

PHP

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP code is interpreted by a web server with a PHP processor module, which generates the resulting web page: PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data.

3.4.2 BACK END

The back end is implemented using MYSQL which is used to design the databases.

MYSQL

MySQL is the world's second most widely used open-source relational database management system (RDMS). The SQL phrase stands for structured query.

3.4.3 SMS GATEWAY

An SMS gateway allows a computer to send or receive short message services (SMS) transmissions to or from a telecommunications network. Most messages are eventually routed into the mobile phone networks. Many SMS gateways support media conversion from email and other formats. A direct-to-mobile gateway is a device which has built-in wireless. GSM connectivity. It allows SMS text messages to be sent or received by email, from web pages or from other software applications by acquiring a unique identifier from the mobile phone's subscriber identity module, or "SIM card". Direct-to-mobile gateways are different from SMS aggregators, because they are installed on an organization's own network and connect to a local mobile network.

The connection to the mobile network is made by acquiring a SIM card number from the mobile operator and installing it in the gateway. Typically, direct-to-mobile gateway appliances are used for hundreds to thousands of text messages

per month. More modern appliances now offer the capability of send up to 100,000 messages each day. Several vendors that have historically provided GSM Gateway equipment for voice also have SMS capability. Some are more primitive than others. The more capable devices are designed with SIM management to regulate the number of SMS messages per SIM, ODBC to connect to a database, and HTTP interfaces to interact with third party applications.

Text messages can be sent from a personal computer to mobile devices via an SMS gateway, using most popular email client programs, such as Eudora, Thunderbird, and so on. The messages must be sent in ASCII "text-only" mode. If they are sent in HTML mode, or using non-ASCII characters, they will most likely appear as nonsense on the recipient's mobile telephone. Before the message can be sent, one must determine the domain of the mobile carrier's SMS gateway.

CHAPTER 4

USER INTERFACES

4.1 FIRST SCREEN

Fig 4.1 Home Page

Here, User can select the category he desires to book the ticket.

4.2 Ticket Booking Interface

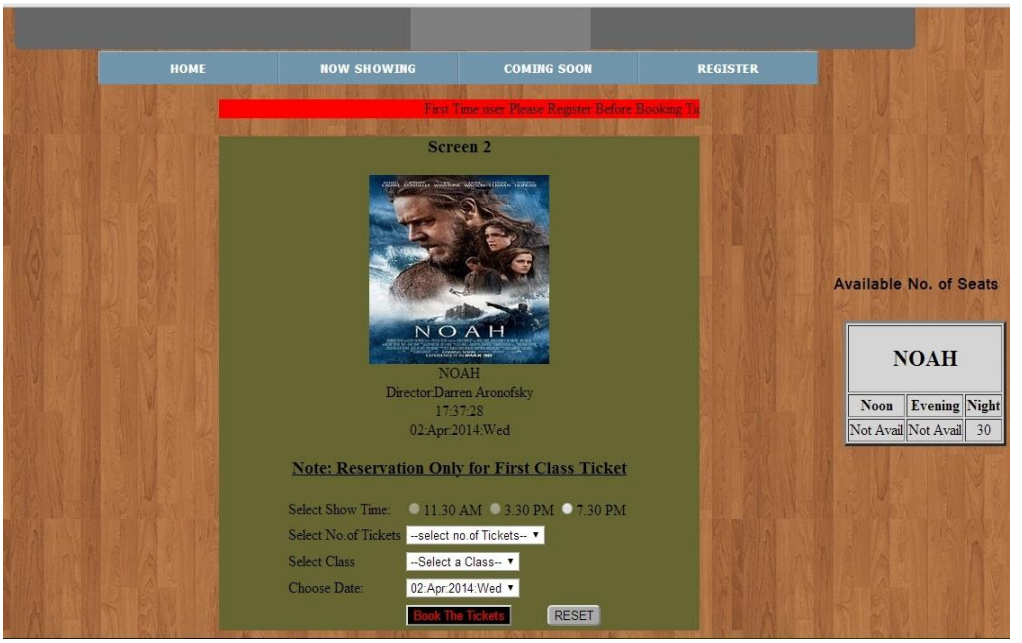

Fig 4.2 Ticket Booking Page

4.3 User Login

Fig 4.3 User login

4.4 Admin Login

Fig 4.4 Admin login

4.5 Admin Control

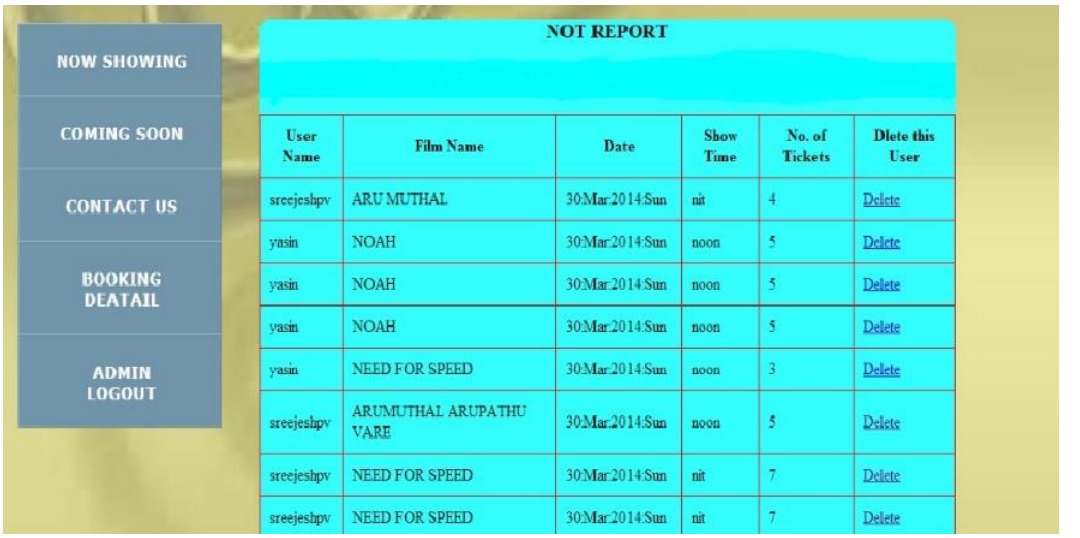

Fig 4.5 Admin control

CHAPTER 5

TESTING

We tested our program with the help some SMS Gateways.

In this Project SMS are sent to the Customer by the Clickatell's SMS Gateway.

Clickatell's SMS gateway can be used to SMS-enable any application, website or system and send messages around the globe with a variety of connection options.

Test Reports are as given below:

TEST NO.1	DATE:10-03-14
SCENARIO: For Checking the message receival, Our Website was hosted locally. Logged in with username “abc” and password “123”.Two tickets are booked for the Movie ABC.	
SMS Gateway Used: *Ozeki Message Server*	
Outcome: It is found that the Ozeki server is found to be not responding. Test was repeated for about 5 times. But no reply was obtained.	

Table 5.1 Test Number1

TEST NO.2	DATE: 20-03-14
SCENARIO: For checking the message receival once again with a different SMS Gateway. Logged in with username “abc” and password “123”.Two tickets are booked for the Movie ABC.	
SMS Gateway Used: Clickatell’s SMS Gateway	
Outcome: Message was received.	

Table 5.2 Test Number 2

CHAPTER 6

CONCLUSION

Nowadays, traditional reservation ways of cinema ticketing is dying. It's new age where technology dominates human life. With the software and technological devices, exceptions are reduced and even terminated. Also, people prefer easy, quick and safe way for every part of his life. This project is designed to meet the requirements of a cinema ticket booking system. It has been developed in PHP and the database has been built in My SQL server keeping in mind the specifications of the system.

In our project: with this cinema ticketing system; cinema companies can satisfy comfortable facilities to their customers. The relationship between cinema manager, employee, and customer satisfy a good communication to complete ticketing process. With this platform we developed, we are hoping to reduce time wasting, avoid misunderstandings, provide easy data flow, customer pleasure, and less hard work. We believe that we have accomplished our goals and satisfied with the code we developed.

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