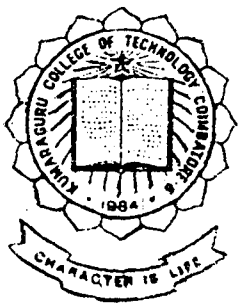
SRUTHILAYA

P-505

PROJECT WORK



2000 – 2001

Submitted By

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Under the Guidance of
Ms. S.Rajini, B.E

In partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

in **COMPUTER SCIENCE AND ENGINEERING**

of the Bharathiar University, Coimbatore.

Department of Computer Science and Engineering

Kumaraguru College of Technology

Coimbatore - 641 006.

DECLARATION

We hereby declare that this project work entitled

"SRUTHILAYA"

submitted to Kumarguru College of Technology, Coimbatore (Affiliated to Bharathiar University) is a record of original work done by us under the supervision and guidance of Ms. S. Rajini , Lecturer, Department of Computer Science, Kumarguru College of Technology, Coimbatore.

Place : Coimbatore
Date : 12-3-2001

Signature of Candidates

(S. Ramkumar)

(S.Nithya)

(S.Nirupa)

Counter Signed by Rajini N Staff in-charge

S. Rajini
Lecturer,
Kumarguru College of Technology,
Coimbatore - 641 006

ACKNOWLEDGEMENT

We express our deep sense of gratitude to **Dr. K.K. Padmanabhan Ph.D., Principal, Kumaraguru College of Technology , Coimbatore** , for providing us permission to carry out this project work.

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We express our deep sense of respectful gratitude to our guide **Ms. S. Rajini B.E., Lecturer, Department of Computer Science and Engineering** for her valuable guidance , keen suggestions , innovative ideas , inspiration , discussions , helpful criticisms and kind encouragement in all the phases of this project work . It has been indeed a great pleasure to work under her guidance.

We like to express our special thanks to all Staff members and Lab technicians in the Department of Computer Science and Engineering who helped us for the successful completion of the project.

Finally we express our deep sense of gratitude to our parents, friends and all others who had been directly or indirectly involved with this project, for their invaluable help and consideration towards us.

SYNOPSIS

Sruthilaya is an application software that has been developed with the aim of enriching the interest of the users in the field of music. Since there are no free sites for teaching music online, Sruthilaya is designed as an outstanding web-based learning system whose intent is to teaching the community Carnatic music online. The additional features include Chat, Music shopping, Query sessions, Feedback and so on.

The software has been implemented using HTML as the front-end with MS Access 2000 as the back end. Since Java has emerged as the web-master, Java servlets has been used as middleware between the application and database. It provides the necessary security. The complete software has been computerized in such a way as to provide the users with a good GUI. As it has been implemented using Java which includes Swing class, the system provides a "Look and Feel" appearance.

CONTENTS

NEED FOR COMPUTERIZATION

In this hectic world, people cannot spend their spare time to the utmost. Hence they have to use the advanced technologies available in order to pursue their interests. This application software is a boon developed with the aim of overcoming the time constraint to a great extent. When it comes to learning Carnatic music, the software indirectly overcomes the age constraints too.

Although there are many other music sites scattered all over the net , Sruthilaya proves to be the first free website for music tutorial sessions which also includes music instructions.

SYSTEM ANALYSIS

EXISTING SYSTEM:

The existing computerized system is better than the contemporary manual system like Gurukula as it provides a better interaction among people over the net . But the efficiency is still low as the prevailing sites expect the users to merely reproduce the music lessons.

PROPOSED SYSTEM:

The proposed system has been developed in such a way as to solve the problems encountered in the present systems. Sruthilaya enables all users to learn carnatic music free of cost. The system functions in a much efficient manner by providing music instructions along with the lessons.

The language chosen is Java which is platform independent and easy to construct. Servlets has been chosen for its superiority to replace the CGI scripts. Inorder to enable pluggable 'Look and Feel' appearance. Swing has been

embedded. The database has been created using MSAccess for its simplicity and easier access. As the Internet has got a wide reach, the system covers a wider area. Additional facilities like Faq's, Queries and Feedback forms provide the much needed interaction between the common people and the organization.

OVERVIEW OF THE PROJECT

The project aims at launching a more efficient web site for music that enables easy access and better resource utilization. The project is basically divided into five modules.

The first module consists of the registration form. It accepts the user fed data, checks for various constraints and stores them in a secured database.

The second module concentrates on the study tour. There are three levels of study. Each level provides instructions along with the music lessons.

The third module is the utilities module consisting of the public chat facility and sending queries to the organization. The query session has been facilitated by Servlets. The chat facility provides a public chatting controlled by Servlets.

The fourth module comprises of the feedback from the users. Enhancements shall be made in accordance with the comments and positive criticisms.

The fifth module is a boon to the users which enables the most easiest way to shop around for an exotic collection of music Cds.

HARDWARE REQUIREMENTS

Processor	:	Pentium III
Clock Speed	:	@600MHz
Main Memory	:	64 MB
Cache	:	512 KB
Hard Disk Drive	:	6.4 GB
Floppy Disk Drive	:	1.44 MB
CD-ROM Drive	:	48-X Creative
Display Type	:	SVGA Color Monitor
Mouse	:	Acer Mouse
Keyboard	:	105 Standard

SOFTWARE REQUIREMENTS

The softwares and tools needed for development are :

- JDK 1.2.2
- JSDK 2.0
- Netscape Navigator 6
- MS Access 2000
- Java Web Server

For users,

- Internet connection
- A web browser

JAVA – THE WEB MASTER

Java is a blend of the best elements of its rich heritage combined with the innovative concepts required by its unique environment. Java derives its syntax from C and most of its object - oriented features from C++. Although Java has become inseparably linked with the online environment it is first and foremost a programming language.

Java is basically an Internet programming language. There are various built-in tools available in Java for Internet programming. As a language for delivering information on the web, Java connects to the web's hypertext markup language(HTML) using a special tag called APPLET.

KEY FEATURES :

The factors which play an important role in moulding the final form of Java language are :

- Simple

- Object oriented
- Distributed
- Interpreted
- Robust
- Secure
- Neutral
- Portable
- High performance
- Multithreaded
- Dynamic

SOCKET PROGRAMMING

Java is supposed to become the premier tool for connecting computers over the net. If we are used to programming network connections in C or C++, Java supports the Internet's TCP/IP protocol both by extending the already established stream I/O objects across the network. Java supports both the TCP and UDP protocol families. TCP is used for reliable stream-based I/O across the network. UDP supports a simpler, hence a faster point-to-point and datagram - oriented model.

Inet address :

Java supports Internet naming through the Inet address, when reduced to their lowest level, are comprised of a 32-bit host identifier and a 32-bit port selector on that host. InetAddress has three methods which can be used to create instances of InetAddress.

- getLocalHost
- getByName
- getAllByName

Sockets:

The java.net package strongly differentiates between sockets and server - socket. The primary difference between the two is that a server-socket will wait around for a client to connect to it. Whereas an ordinary socket will treat the unavailability of something to connect as an error condition.

The creation of socket object also establishes the connection between Internet addresses. There aren't methods or constructors that explicitly expose the details of establishing the client connection. There are two constructors for creating sockets namely :

- Socket(String host ,int port)
- Socket(InetAddress address ,int port)
    - getInetAddress()
    - getPort()
    - getLocalPort()

Sockets for servers:

Server sockets are quite different from normal sockets. When we create a server-socket, it will register itself with the system as having an interest in client connections. It has one additional method called accept, which is a blocking call that waits for a client to initiate communications and then returns with a normal socket. Two constructs :

- ServerSocket(int port)
- ServerSocket(int port ,int count)

URL Connection :

A URL connection is that object that we use to either examine the properties of the remote resource referenced or to obtain its contents.

SWING

Swing is a major component of the JFC (Java Foundation Classes), which is the result of a large collaborative effort between Sun, Netscape, IBM and other companies. Swing provides a large number of useful GUI controls that originated with Netscape's Internet Foundations Classes (IFC).

The swing components go far beyond the IFC, to the point where there is no visible resemblance between Swing components and those of the IFC. Swing also provides the capability to quickly and easily change the look and feel of the single component or group of components. This capability, known as pluggable look and feel, is a hallmark feature of Swing.

SWING PACKAGE OVERVIEW :

Swing is a large API consisting of 9 packages and numerous classes and interfaces. Most of the swing components are contained in the javax.swing package, which also provides

classes and interfaces that support and manage the GUI components. The javax.swing.border package provides a number of interesting borders that can be used with swing components. These borders help to tailor the look and feel of component sets.

The Swing Package defines the events and event listeners used by Swing components. It is a good idea to look over the list of events and event listeners to get a feel for the types of user interactions supported by Swing. The javax.swing.table package classes and interfaces that support the feature rich and flexible JTable object. We use these classes and interfaces to tailor a table's display features.

The javax.swing.text package classes and interfaces that support the text components. These classes and interfaces control the highlighting , formatting and other aspects that are entered and edited within text components. The javax.swing.tree package classes and interfaces support the use of the JTree component.

SERVLETS

Servlets are modules that run inside request/response oriented servers , such as Java enabled web servers, and extend them in some manner. For example , a servlet might be responsible for taking data in a HTML order-entry form and applying the business logic used to update a company's order database. Servlets are to servers what applets are to browsers.

Servlets are an effective substitute for CGI scripts : they provide a way to generate dynamic documents that is both easier to write and faster to run. They also address the problem of doing server- side programming with platform specific APIs. Servlets are developed with the Java Servlet API, a *standard Java extension* .

ADVANTAGES OF SERVLETS :

- **Performance**
  - Servlets need to be loaded only once, while CGI programs need to be loaded for each client request.

- The servlet has an initialisation method that allows resource intensive actions such as database connections to be performed at startup and then reused across multiple client requests.
- Java is scalable to take advantage of multiple processors.

Platform Independence

- Servlets can run on any platform that supports the Java Virtual Machine (JVM) .
- PERL scripts can usually be moved from platform to platform, but CGI and server extensions written in C are not as portable.

Persistence

- Servlets are persistent and can maintain state.
- CGI programs use cookies that don't maintain connectivity to the database.

Extensibility

- Java is a robust, fully object oriented language.
- Java servlets can utilise Java code from any source.

MS ACCESS 2000

Microsoft Access is a user friendly database system. The reasons for the success of Access are that it is easy to use with the GUI based design and wide availability without having to compromise the core aspects. Using Microsoft Access, we can manage all our information from a single database file.

Microsoft Access is an interactive relational database management system for Microsoft Windows. Access takes the full advantage of the graphical power in Windows, giving visual access to data and simple and direct ways to view and work with information. Its powerful querying and connective capabilities helps us to find the information we want quickly, regardless of format or location. Only one query is needed to work with the data stored in different formats and network locations.

MICROSOFT ACCESS DATABASE :

A database is a collection of data related to a particular topic. A database management system is a system that stores

and retrieves information in a database. Access has the power to organize the data according to the subject so that the data is easy to track and verify. Information can be stored about how different subjects are related and hence to bring related data together.

HTML

Hyper Text Mark-up Language (HTML) is the heart of the hyper-text documents. HTML contains tags which are just ordinary text characters enclosed in angle brackets. HTML documents can be prepared on any Word documents. There is no need to have special software. HTML is not exactly a programming language.

HTML is really a set of codes - called 'tags' - for creating an entire internet browser presentation, including the parts that aren't "hyper". An HTML document is not a program. It is a well- defined collection of tags and markers which will allow us to turn ordinary text into instructions that a browser can interpret.

HTML contains special tags which allow programs to execute external programs. The applet tag enables Java programs to run on the browser. HTML also supports other scripting languages like VB Script and Java Script. It is sufficiently general to allow it to be used with a variety

of browsers and computers. Much of the popularity of the Internet can be credited to HTML which has made it easy to create web pages. Since HTML doesn't require any advanced technical skills, it is quite popular among naïve users too.

DATABASE DESIGN

DATABASE NAME : PROJECT

TABLE 1 :

NAME : CART

DESCRIPTION : This table acts as a scratch pad. It is primarily used for transaction of items the user has selected during the shopping session.

Field name	Type	Description
Cartno	Number	An unique identity to the cart
UserId	Text	Identity of the user who has ordered items
Cdno	Number	Identity of the cd selected
Qty	Number	Number of the cds ordered

TABLE 2:

NAME : BILL

DESCRIPTION : This is the final table that holds the details of the items that are chosen during shopping. Only on confirmation of the items, will the transaction be done to this table.

Field name	Type	Description
Billno	Number	Number for the bill
userId	Text	Identity of the user who confirmed the bill
amount	Currency	Amount for purchased goods.
count	Number	Number of items in the bill.

TABLE 3:

NAME : CREDIT

DESCRIPTION : This table holds the credit card details of the user. These details are verified before delivery of the orders to the user.

Field name	Type	Description
Cardno	Text	Credit card number.
Company	Text	Name of the credit card company .
Name	Text	Name of the credit card holder.
Date	Text	Expiry date of the credit card.

TABLE 4 :

NAME : CONFIRM

DESCRIPTION : This table contains the details of the confirmed items of the final bill which are delivered on acknowledgement of the credit card.

Field name	Type	Description
Billno	Number	Bill number of the confirmed bill.
UserId	Text	Identity of the user
Cdno	Number	Identity of the cd selected.
Qty	Number	Number of the cds purchased.

TABLE 5 :

NAME : FBACK

DESCRIPTION : This table holds the details of the feedback given by the user. This is checked by the administrator and is responded accordingly.

Fieldname	Type	Description
Name	Text	Name of the user
Email	Text	Email address of the user .
Telephone	Number	Telephone number of the user
Comtype	Text	Type of the comment.
Comment	Text	Comments.
Subject	Text	Subject on which comments are passed.

TABLE 6 :

NAME : SONG

DESCRIPTION : This is the main table for shopping module which holds the details of all the available music cds. This table shows the complete details about the cds such as unit price, demo track etc.,

Field name	Type	Description
Title	Text	Title of the cd
Price	Currency	Price of the cd.
Song	Text	Demo track of the cd.
Cdno	Number	Id to the cd.
Language	Text	Language of the songs in the cd.
song1	Text	Song in the demo track
Category	Text	Category to which this cd is grouped

TABLE 7 :

NAME : REGISTER

DESCRIPTION : This table maintains the data about the users of the people who wish to be members of the web site. This table can be accessed only by the administrator .

Field name	Type	Description
FirstName	Text	First name of the user
LastName	Text	Last name of the user
address1	Text	Street name of the user
city	Text	City of the user
state	Text	State of the user
country	Text	Country of the user
Email	Text	Email address of the user
phone	Number	Phone number of the user
fax	Text	Fax of the user
zipCode	Text	Zipcode of the user
userId	Text	Unique id to each user

TABLE 8 :

NAME : CUSTOMER

DESCRIPTION : This table holds the user id and password of the registered users. This table is activated when a user logs into the website.

Field name	Type	Description
userid	Text	Unique id to the user
password	Text	Password to the user

WEB PAGE DESIGN

The home page and the other intermediate information pages are designed using HTML. The pages are linked by hyperlinks and contains pictures to make it more attractive.

REGISTRATION FORM :

This is an html form with textboxes for entry of user details with their names, addresses, phone numbers, fax and most important their credit card details.

LOGIN FORM :

This form is meant for the members of the website. They enter their user name and password and henceforth enter into the site.

UTILITIES:

FAQS AND QUERIES :

This project encompasses yet another facility , E-mail as it goes online. This is a simple mailing system which facilitates any third person to mail his queries to us regarding music. This mailing system sends a mail from any person with a valid UserId in a mail server.

CHAT :

Along with the above referred facilities, there is yet another facility, public chat, in this project. This chat uses simple file updation logic. This is a simple multithreaded application where the text entered by one person is viewed by another person and replied.

IMPLEMENTATION

Implementation is the stage of the project when the theoretical design is turned into a working system. It is the most crucial stage in achieving a new successful system. Implementation involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the changeover, training of staff in the changeover procedures and evaluation of changeover methods.

Music shopping is implemented using Servlets. Session tracking is done using hidden fields since HTTP is a stateless protocol. An unique id is given to each user. This id is used in the hidden fields for session tracking. A temporary table is being used for holding the details of the goods ordered by the user during his shopping session.

Chat session is implemented using socket programming. The chat message of a user is visible to all users who are in the chat room. All users can readily indulge in public chat.

Tutorial session is implemented using HTML. Various levels of study are available to the users by providing hyperlinks. The users are provided with music instructions along with the music lessons which makes the tutorial session more interactive.

SCOPE FOR FUTURE ENHANCEMENT

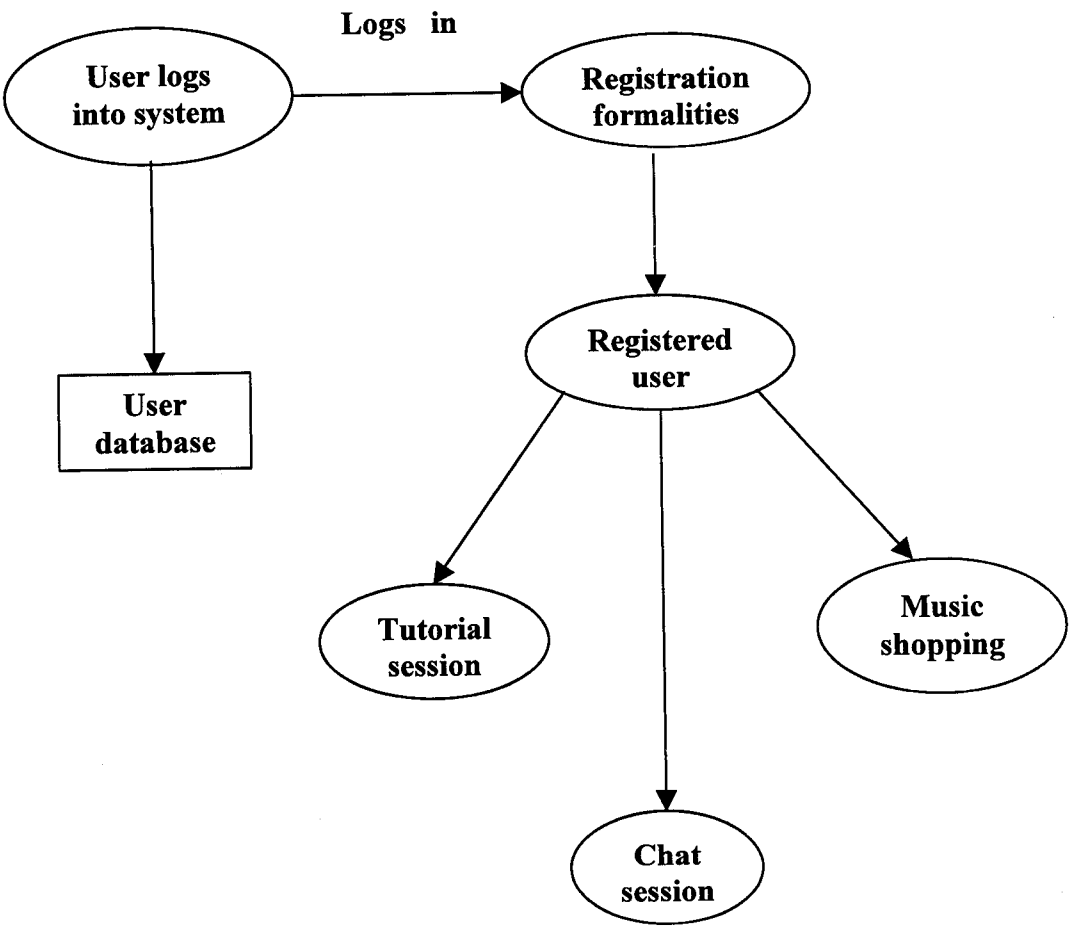
Future extensions in the system can be made in order to provide more options like that of maintaining an exotic collection of songs of musicians and matching the frequency of the user and the tutor by introducing the concept of voice recognizer. The system is a flexible one and any amendment is possible with minor routine modification.

The application of the web in the chosen areas is becoming an absolute necessity in the present day environment. The need for faster and efficient business, speedy and accurate world class services are of vital importance. The list of possible values serves this purpose to a great extent but to say whether the system can satisfy all the possible options in the areas concerned is actually very difficult. But the system is extremely adaptive to all such situations that may arise in future.

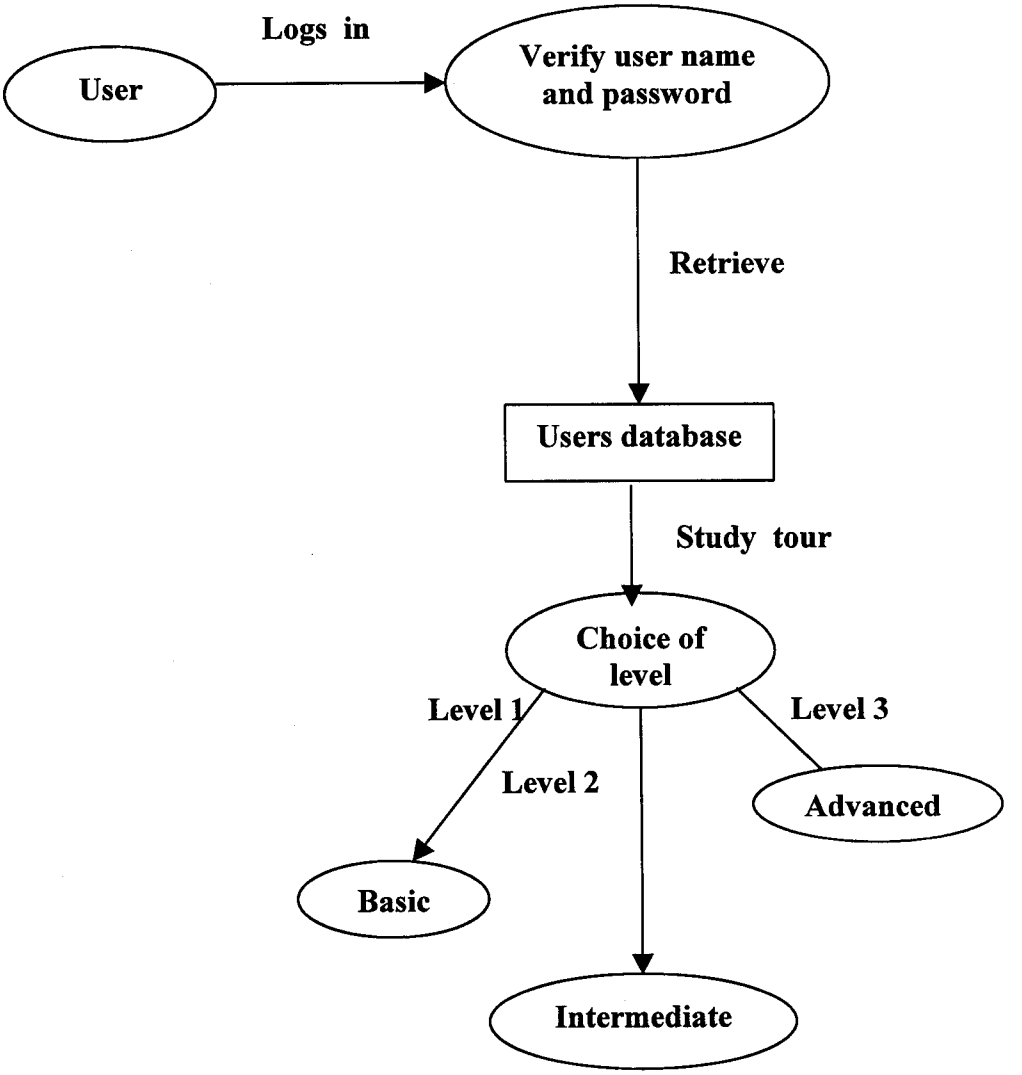
CONCLUSION

The basic objective of this project is to create an efficient and an educative website for music lovers. The users are spared of the burden of age and time constraints. The users are able to develop their interests in music in the most easiest way. Chatting session which also include queries and e-mail facilities help in a better interaction between the users and the organisation.

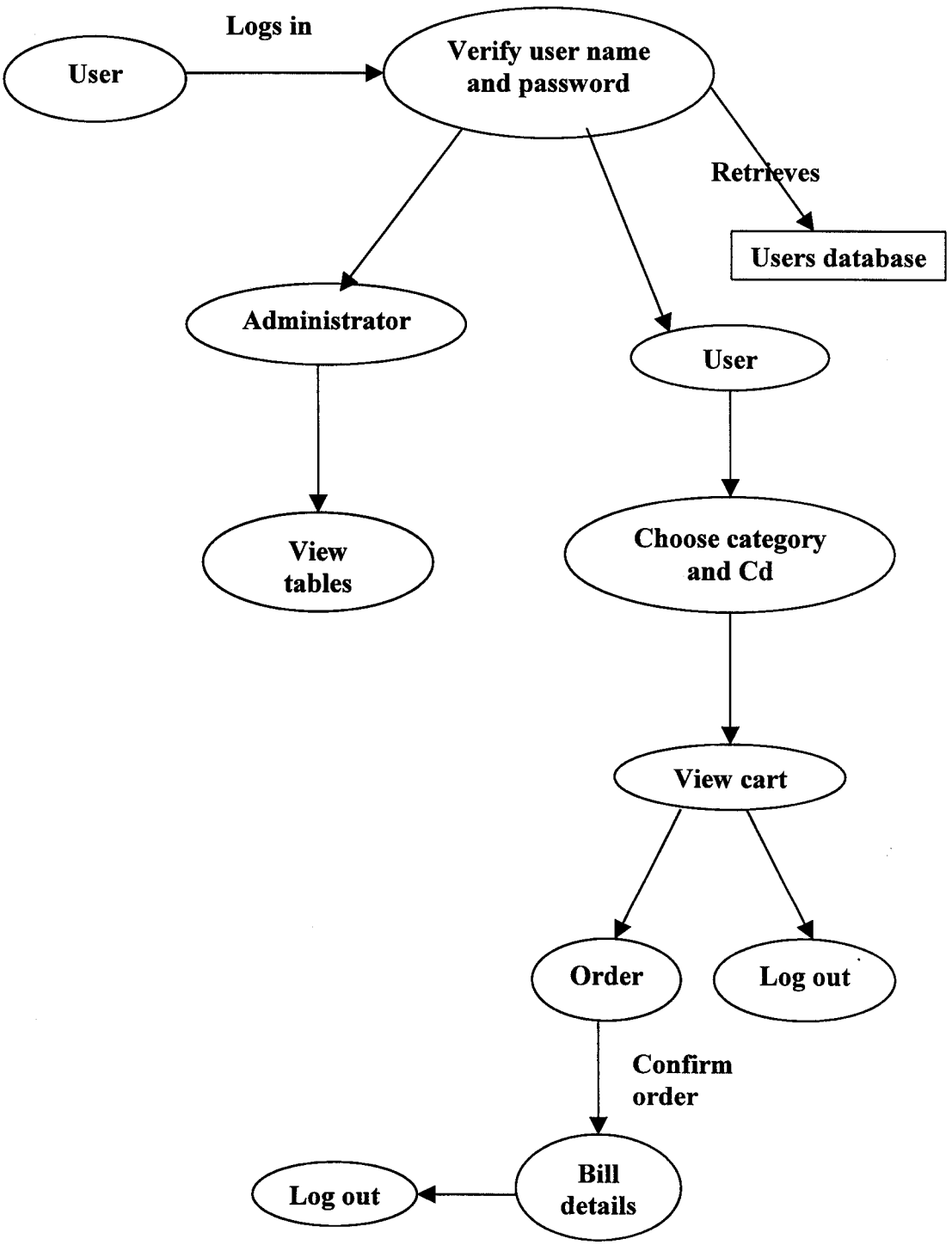
DATA FLOW DIAGRAM



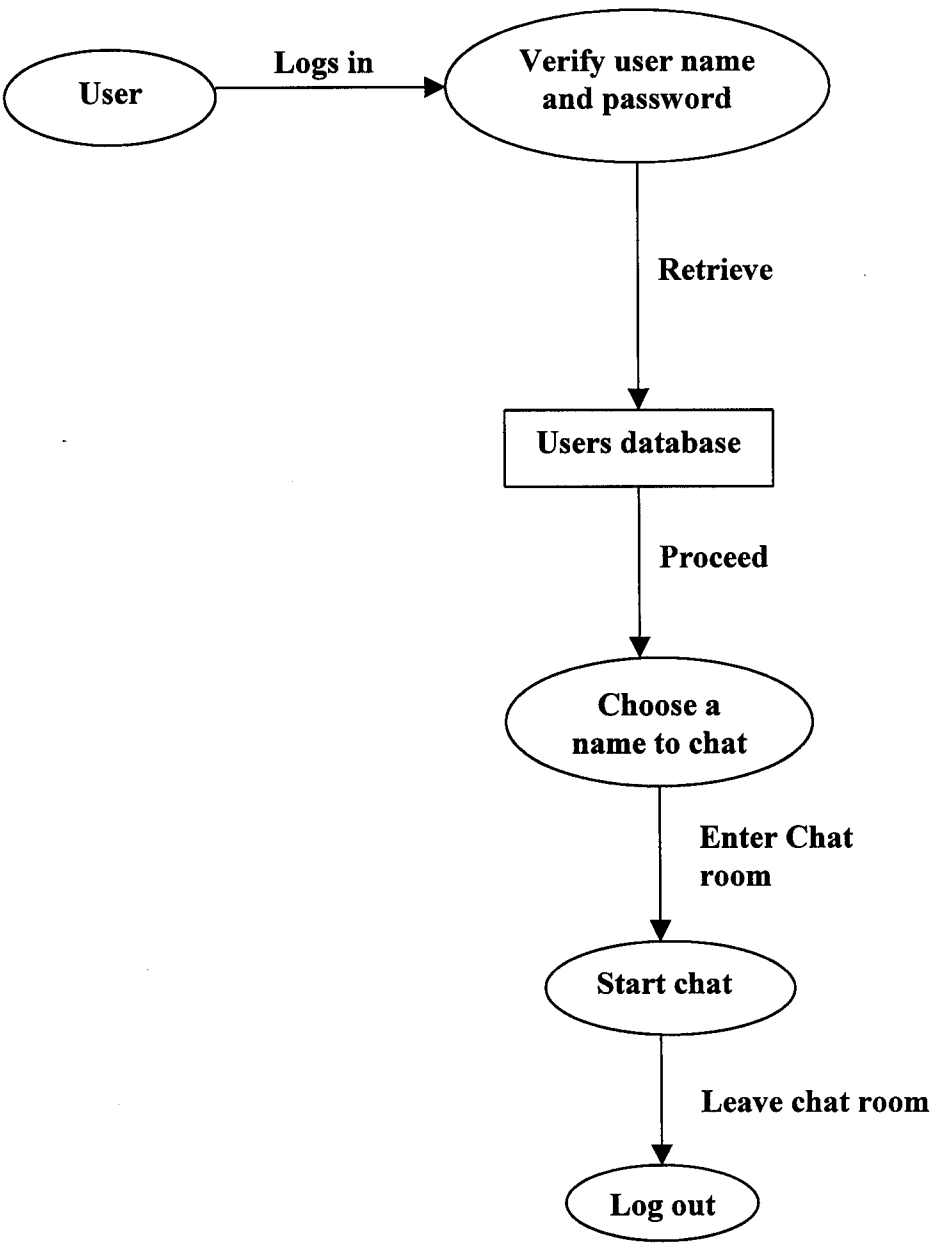
TUTORIAL SESSION



MUSIC SHOPPING



CHAT


User
Logs in
Verify user name and password
Retrieve
Users database
Proceed
Choose a name to chat
Enter Chat room
Start chat
Leave chat room
Log out

ORDER.JAVA

```
import java.util.Enumeration;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
public class order extends HttpServlet
{
    HttpServletRequest req;
    HttpServletResponse res;
    boolean flag = false;
    String user = null;
    String pass = null;
    String tqty = null;
    String tcdno = null;
    int qty=0;
    int cdno=0;
    float amt;
    float total;
    float price;
    int count = 0;
```

```
PreparedStatement st;
ResultSet rs;
PreparedStatement st1;
ResultSet rs1;
PrintWriter out;
public void init(ServletConfig c) throws ServletException
{
   super.init(c);
   try
   {
   Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
   con=DriverManager.getConnection("jdbc:odbc:project");
   }
   catch(Exception e)
   {
   }
 }
public void doGet(HttpServletRequest
requ,HttpServletResponse resp)
throws ServletException,IOException
 {
```

```
total=0;
flag = false;
req = requ;
res = resp;
user = req.getParameter("userId");
tcdno = req.getParameter("cdno");
tqty = req.getParameter("qty");
qty = Integer.parseInt(tqty);
cdno = Integer.parseInt(tcdno);
resp.setContentType("text/html");
out = resp.getWriter();
out.println("<HTML><TITLE>ORDER</TITLE>");
 out.println("<body
 background=\"d:\\ramproject\\music1.gif\" text
 =\"#FF0000\" >");
 out.println("<head><h1>customer
 tabledetails</h1></head>");
 try {
st = con.prepareStatement("  insert into cart
(userId,cdno,qty) values (?,?,?)");
```

```
    st.setInt(2,cdno);
    st.setInt(3,qty);
    st.executeUpdate();
 }
catch(Exception e)
{
    e.printStackTrace();
    System.out.println("error"+e);
}
    out.println("</table>");
     out.println("<form action =\"\\servlet\\conbill\"
     method =        \"get\"> ");
     out.println("          <table border=\"2\"
     cellpadding=\"5\" cellspacing=\"5\" width=\"30%\"> ");
     out.println("<font color = \"FF00FF\">");
     out.println("       <tr>");
      out.println("       <td width=\"25%\">S.NO</td>");
      out.println("       <td width=\"25%\">CONFIRM</td>");
      out.println("       <td width=\"25%\">TITLE</td>");
      out.println("       <td width=\"25%\">PRICE</td>");
      out.println("       <td
```

```
    out.println("       <td width=\"25%\">AMOUNT</td>");
    out.println("       </tr>");
    out.println("       </font>");
try
{
      st = con.prepareStatement("select * from cart where
    userId = ?");
          st.setString(1,user);
          rs = st.executeQuery();
          while(rs.next())
          {
                out.println("    <tr>");
                cdno = rs.getInt(2);
                st1 = con.prepareStatement("select * from
                song where cdno = ?");
                st1.setInt(1,cdno);
                rs1 = st1.executeQuery();
                while(rs1.next())
                {
                   price = rs1.getFloat(2);
                   qty = rs.getInt(3);
```

```
                count++;
                out.println("<td>"+count+"</td>");
                out.println("<td"><input type=\"checkbox\"
                name =\""+count+"\"></td>");
                out.println("<td>"+rs1.geString(1)+"</td>");
                out.println("<td>"+price+"</td>");
                out.println("<td>"+qty+"</td>");
                amt = price * qty;
                total = total + amt;
                out.println("<td>"+ amt +"</td>");
            }
            out.println("    </tr>              ");
        }
}
    catch(Exception e)
    {
    e.printStackTrace();
    System.out.println("error"+e);
    }
    out.println("</table><center>");
```

```
        out.println("<input type=\"hidden\" name=\"count\"
        value="+count+">");
        out.println("<input type=\"HIDDEN\" name=\"userId\"
        value="+user+">");
        out.println("<p><input type=\"submit\" name=\"submit\"
        value=\" CONFIRM ITEMS  \"></p>");
        out.println("</form>");
        out.println("<form action = \"\\servlet\\cancel\"
        method = \"get\">");
        out.println("<input type=\"HIDDEN\" name=\"userId\"
        value="+user+">");
        out.println("<input type=\"submit\" name=\"submit\"
        value=\" CANCEL ORDER \">");
        out.println("</form>");
        out.println("</center></body></html>");
      }
}
```

DATU.HTML

```
<html>
<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html;
charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage
4.0">
<meta name="ProgId" content="FrontPage.Editor.Document">
<title>DATU  VARISAS</title>
</head>
<body background="file:///C:/sruthilaya/background.jpg">
<h1 align="center"><font color="#CC66FF" face="Colonna
MT">DATU  VARISAS</font></h1>
<p align="center"><font color="#004000"><b>LESSON
5   </b></font> </p>
<p align="left">   <font
color="#004000"><b>      
  
</b></font><font color="#000080"><i>Click  on 
```

```
<input type="button" value="PLAY" name="B3" style="color:
#000080; font-family: Britannic Bold; letter-spacing: 2pt">
</a> 
to  hear  how   the following 
notes  are </i> </font> </p>
<p align="left"><font color="#000080"><i> being 
sung. Hear  them 
and  rehearse  them  all  at 
your  own  pace
:</i></font></p>
<ol>
  <li>
     
    <div align="center">
      <center>
      <table border="0" width="94%" height="166">
        <tr>
          <td width="25%" height="20" align="center">
            <p align="center"><font color="#000080"><b>s m g
m   </b></font></td>
          <td width="25%" height="20" align="center"><font
```

```
r   </b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>  
        s s r
r    </b></font></td>
      <td width="25%" height="20" align="center"> <font
color="#000080"> <b> g g m m</b></font></td>
    </tr>
    <tr>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>r
        p m p</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>g
        m r g</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>r
        r g g</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>m
        m p p</b></font></td>
```

```
</center>
<tr>
  <td width="25%" height="20" align="right">
   <p align="left"><font
color="#000080"><b>      
    g d p
d       </b></font></t
d>
  <td width="25%" height="20" align="right">
   <p align="left"><font
color="#000080"><b>      
    m p g
m     </b></font></p>
  </td>
  <td width="25%" height="20" align="center">
   <p align="right"> <font color="#000080"> <b> g g m
m       </b></font></td>
  <center>
  <td width="25%" height="20" align="center"> <font
color="#000080"> <b> p p d d</b></font></td>
```

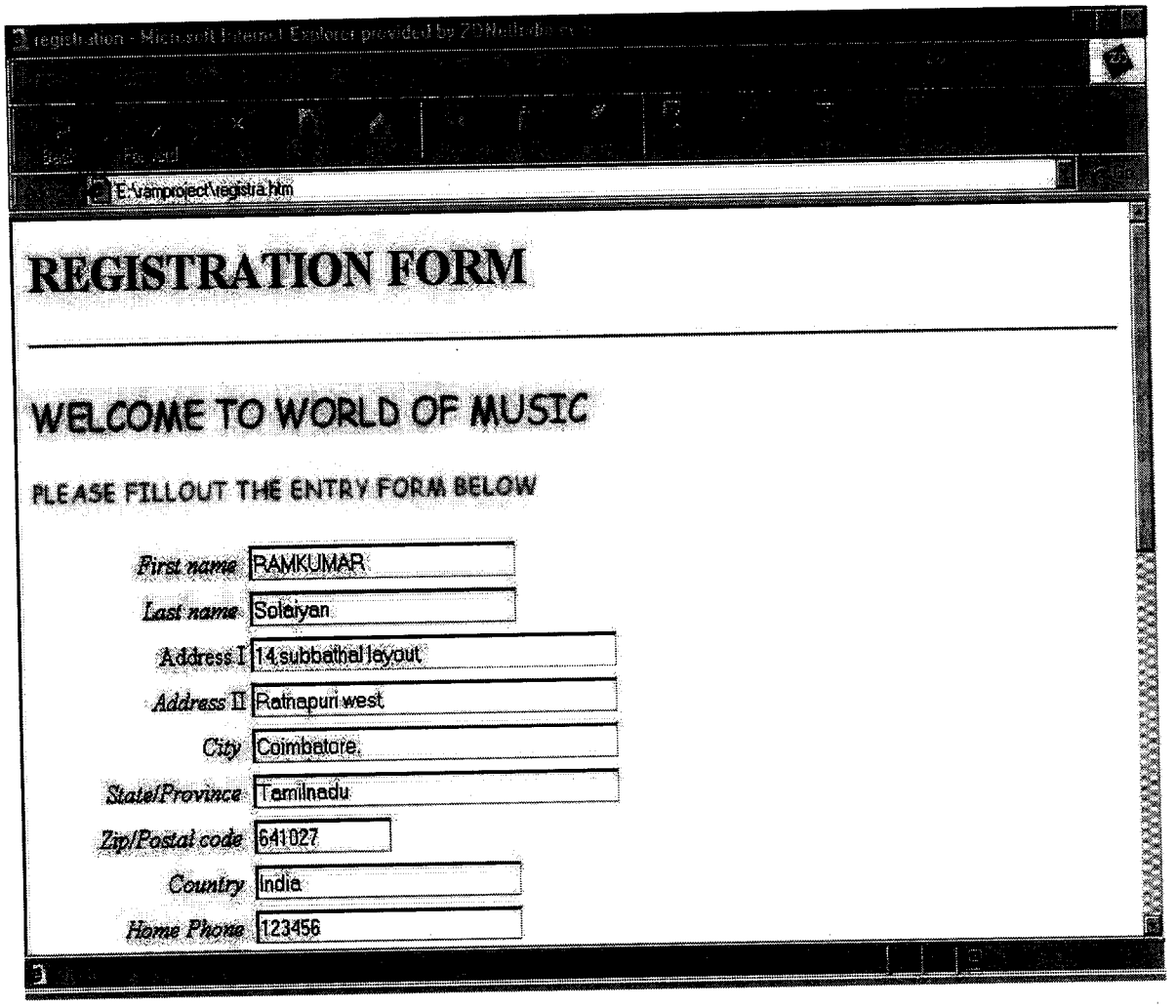
```
<tr>
 <td width="25%" height="20" align="right">
  <p align="right"><font color="#000080"><b>m  n d
n 
      </b></font></td>
 <center>
 <td width="25%" height="20" align="right"><font
color="#000080"><b>p d m p
        </b></font></td>
 </center>
 <td width="25%" height="20" align="center">
  <p align="right"> <font color="#000080"> <b> m m p
p     </b></font></td>
 <center>
 <td width="25%" height="20" align="center"> <font
color="#000080"> <b> d d  n n</b></font></td>
 </tr>
 <tr>
  <td width="25%" height="20" align="center">   <p
align="center"><font color="#000080">
```

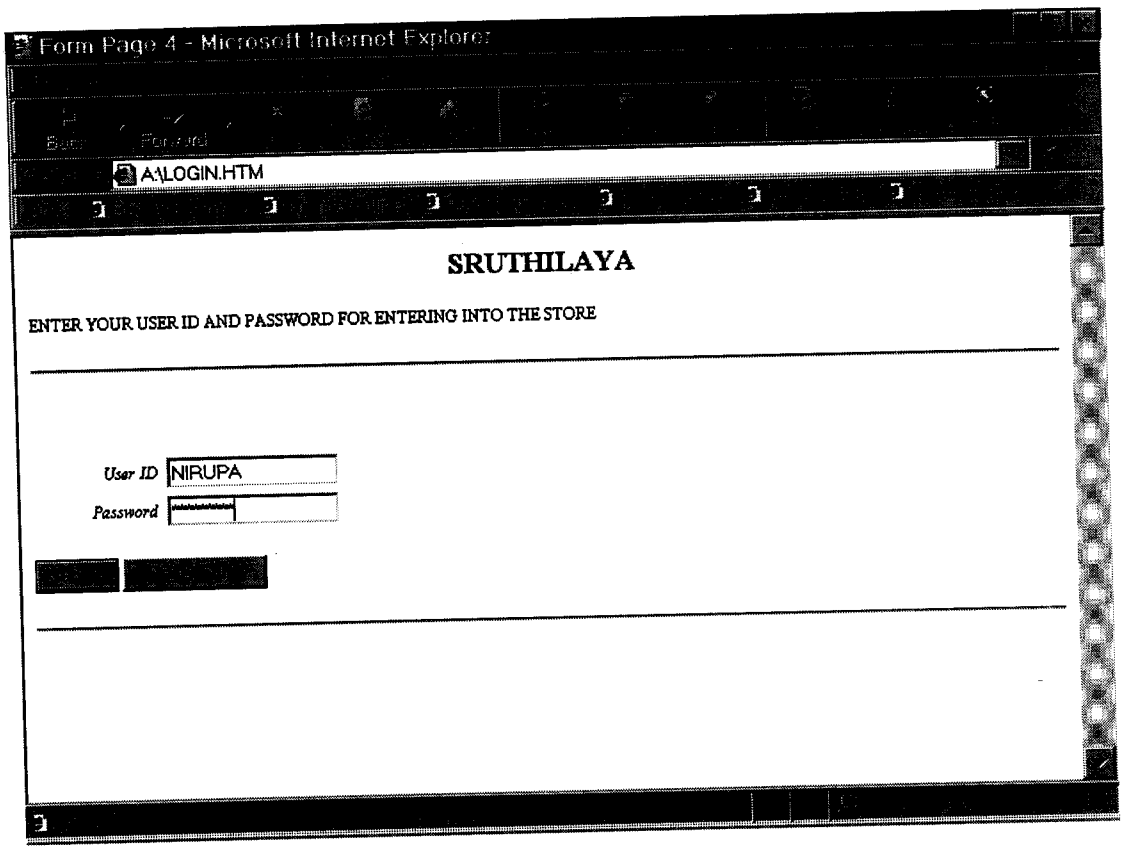
```
  </b></font></td>
        <td width="25%" height="20" align="center"> <font
color="#000080"><b>   d n p  d   </b>
</font></td>
        <td width="25%" height="20" align="center"> <font
color="#000080"><b>      p p d d
      </b></font></td>
        <td width="25%" height="20" align="center"> <font
color="#000080"> <b> n n s` s` </b></font></td>
      </tr>
      <tr>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>s` p d
p   </b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>n
          d s` n</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>s` s` n
          n</b></font></td>
```

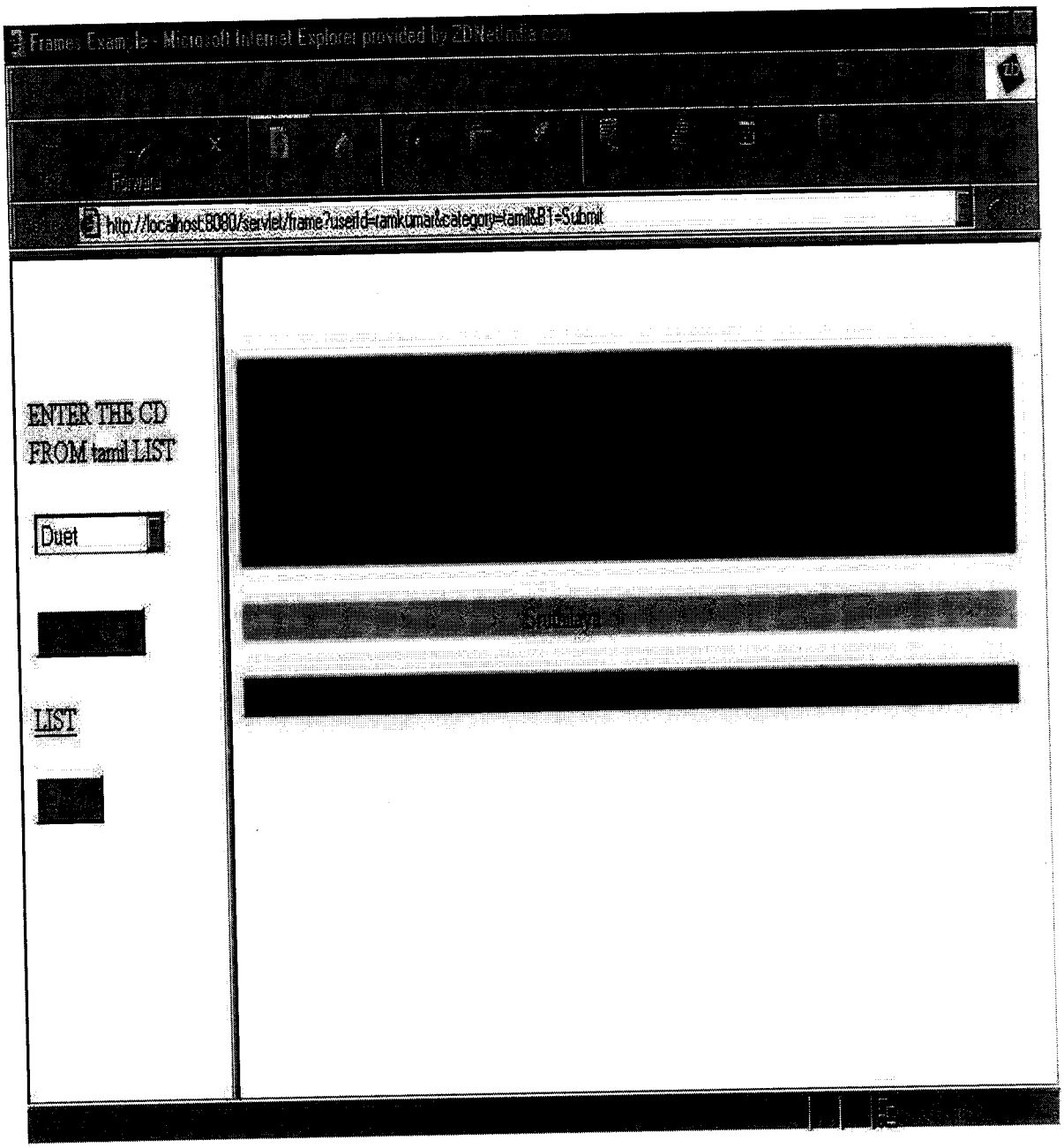
```
      <td width="25%" height="20" align="center"><font
color="#000080"><b>d
        d p p</b></font></td>
    </tr>
    <tr>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>n
        m p m&amp;nbsp;&amp;nbsp;&amp;nbsp;</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>d
        p n d</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>n
        n d d</b></font></td>
      <td width="25%" height="20" align="center"><font
color="#000080"><b>p
        p m m</b></font></td>
    </tr>
    <tr>
      <td width="25%" height="20" align="center"><font
```

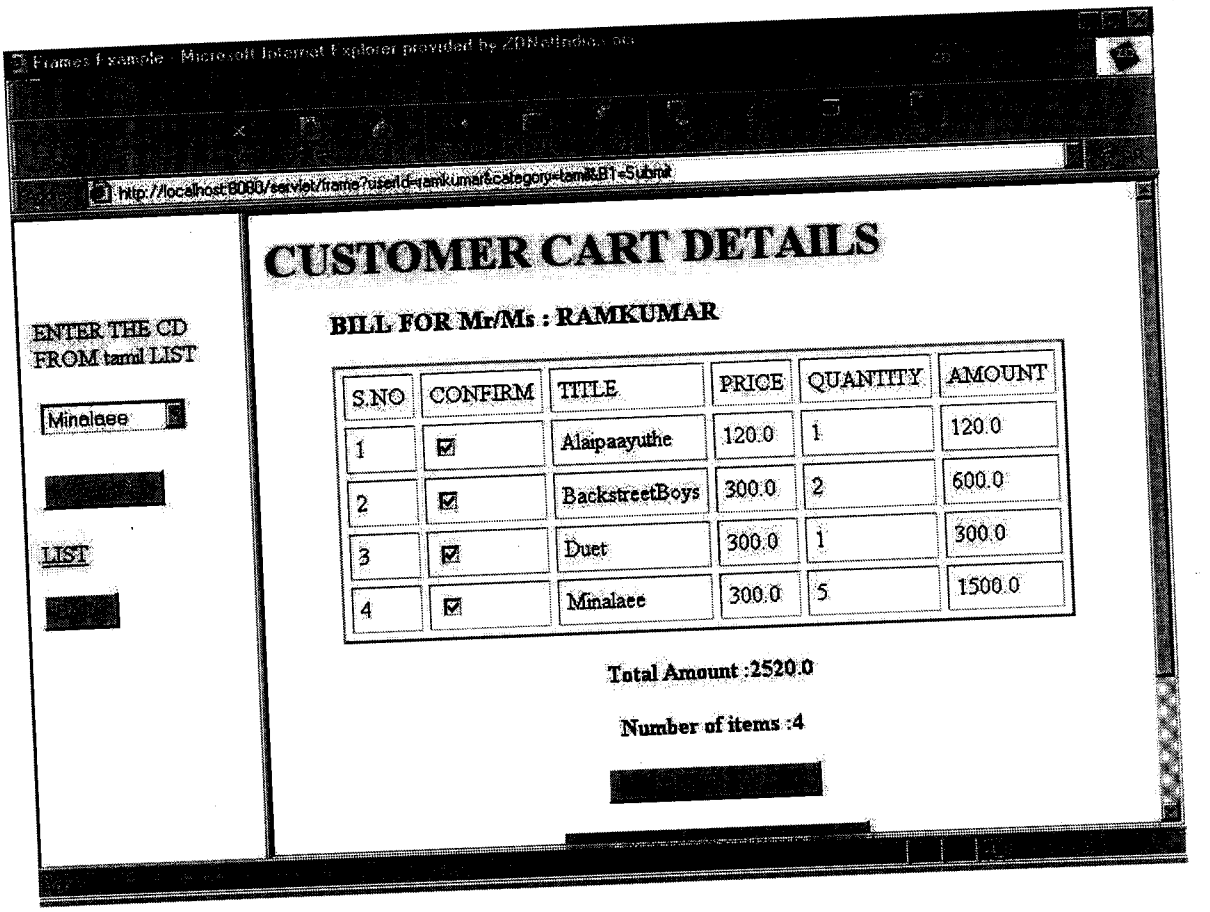
```
        &amp;nbsp;&amp;nbsp;&amp;nbsp;</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>p
          m p d</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>d
          d p p</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>m
          m g g</b></font></td>
      </tr>
      <tr>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>p
          r g r</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>m
          g p m</b></font></td>
        <td width="25%" height="20" align="center"><font
color="#000080"><b>p
          p m m&amp;nbsp;</b></font></td>
```

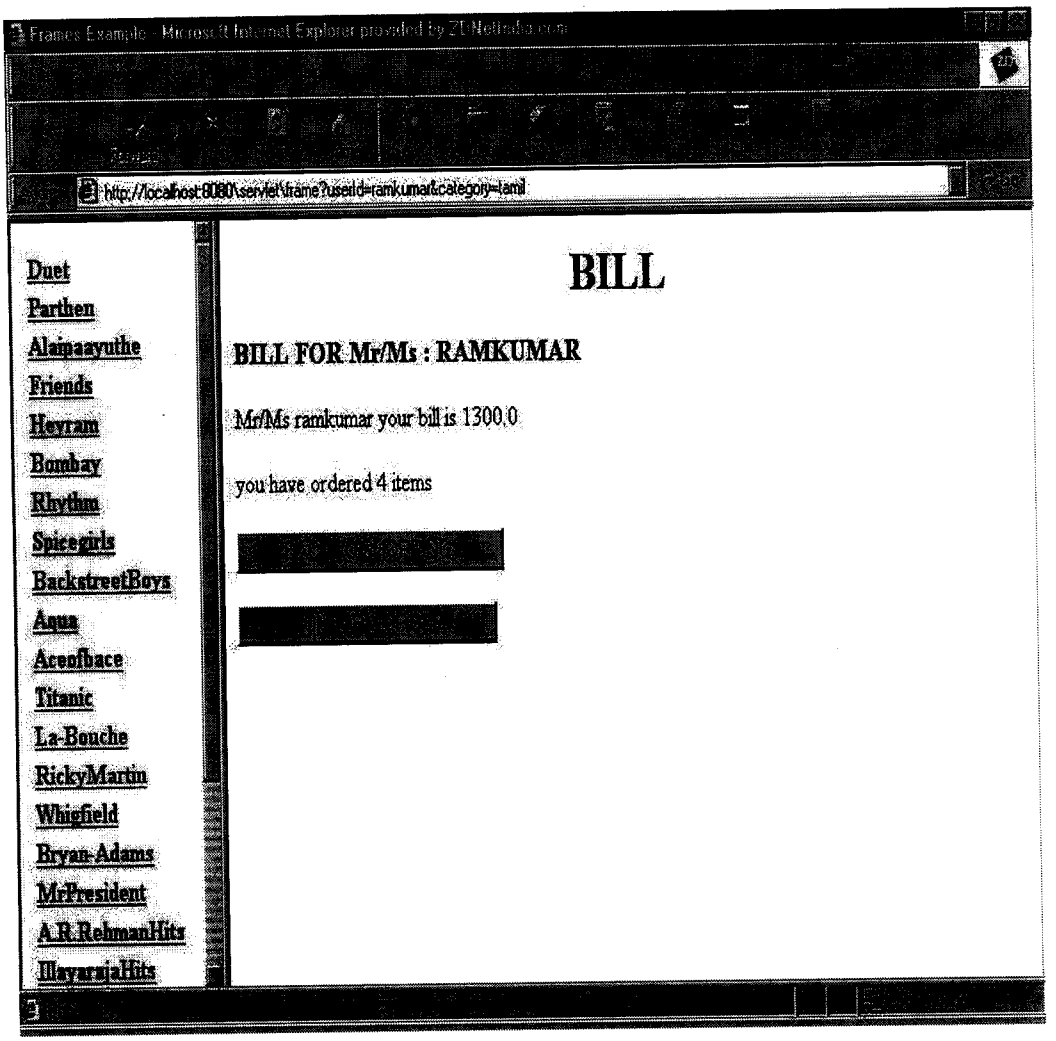
```
<td width="25%" height="20" align="center"><font
color="#000080"><b>g
        g r r</b></font></td>
      </tr>
      <tr>
       <td width="25%" height="20" align="center"><font
 color="#000080"><b>m
         m g g </b></font></td>
        <td width="25%" height="20" align="center"><font
 color="#000080"><b>r
         r s s ||</b></font></td>
       </tr>
      </table>
      </center>
     </div>
   </li>
  </ol>
  <p align="left"><font color="#000080"><b>2.</b></font></p>
  <center>
  </body>
```

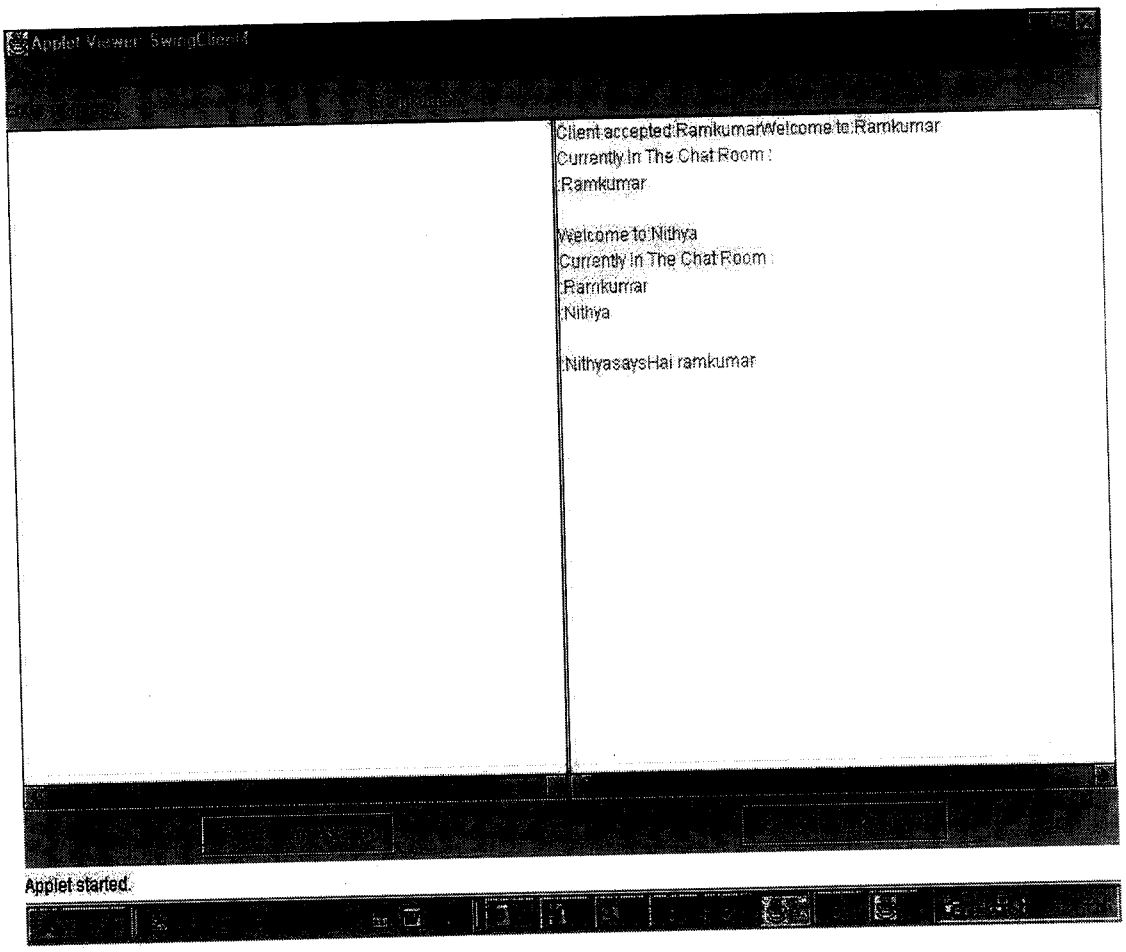

registration - Microsoft Internet Explorer provided by ZDNetIndia
E:\vamproject\registra.htm
REGISTRATION FORM
WELCOME TO WORLD OF MUSIC
PLEASE FILLOUT THE ENTRY FORM BELOW
First name RAMKUMAR
Last name Solaiyan
Address I 14,subbathal leyout
Address II Ratnapuri west
City Coimbatore.
State/Province Tamilnadu
Zip/Postal code 641027
Country India
Home Phone 123456


Form Page 4 - Microsoft Internet Explorer
A:\LOGIN.HTM
SRUTHILAYA
ENTER YOUR USER ID AND PASSWORD FOR ENTERING INTO THE STORE
User ID
NIRUPA
Password


Frames Example - Microsoft Internet Explorer provided by ZDNet India
Forward
http://localhost:8080/servlet/frame?userId=ramkumar&category=tamil&B1=Submit
ENTER THE CD
FROM tamil LIST
Duet
LIST


http://localhost:8080/servlet/frame?userId=ramkumar&category=tamil&B1=Submit
CUSTOMER CART DETAILS
ENTER THE CD FROM tamil LIST
Minalaee
LIST
BILL FOR Mr/Ms : RAMKUMAR
S.NO
CONFIRM
TITLE
PRICE
QUANTITY
AMOUNT
1
Alaipaayuthe
120.0
1
120.0
2
BackstreetBoys
300.0
2
600.0
3
Duet
300.0
1
300.0
4
Minalaee
300.0
5
1500.0
Total Amount :2520.0
Number of items :4


Frames Example - Microsoft Internet Explorer provided by ZLNetIndia.com
http://localhost:8080\servlet\frame?userId=ramkumar&category=tamil
Duet
Parthen
Alaipaayuthe
Friends
Hey ram
Bombay
Rhythm
Spicegirls
BackstreetBoys
Aqua
Aceofbace
Titanic
La-Bouche
RickyMartin
Whigfield
Bryan-Adams
MrPresident
A.R.RehmanHits
IllayarajaHits
BILL
BILL FOR Mr/Ms : RAMKUMAR
Mr/Ms ramkumar your bill is 1300.0
you have ordered 4 items


Applet Viewer: SwingClient1
Client accepted:RamkumarWelcome to:Ramkumar
Currently In The Chat Room :
:Ramkumar
Welcome to:Nithya
Currently In The Chat Room :
:Ramkumar
:Nithya
NithyasaysHai ramkumar
Applet started.

ALANKARAS

LESSON 6

Click on the [redacted] *to hear how the following notes are being sung. Hear them and rehearse them all at your own pace :*

I. Dhruva tala - Chaturasra jati (Sreekara tala)

|4 O |4 |4

Total Aksharakala : 4+2+4+4=14

|4	O	|4	|4
s r g m	g r	s r g r	s r g m
r g m p	m g	r g m g	r g m p
g m p d	p m	g m p m	g m p d
m p d n	d p	m p d p	m p d n
p d n s`	n d	p d n d	p d n s`
s` n d p	d n	s` n d n	s` n d p
n d p m	p d	n d p d	n d p m
d p m g	m p	d p m p	d p m g

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