VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELGAUM-590014



A Mini-Project Report

On

"MUSIC MANAGEMENT SYSTEM"

A Mini-project report submitted in partial fulfilment of the requirements for the award of the degree of **Bachelor of Engineering in Computer Science and Engineering** of Visvesvaraya Technological University, Belgaum.

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CERTIFICATE

This is to certify that the mini-project work entitled "MUSIC MANAGEMENT SYSTEM" has been successfully carried out by AMAN HARRIS (1AM18CS016), AKSHAY KUMAR H.S (1AM18CS013), DEVRAJ R (1AM18CS049) & B.R SHASHANK (1AM18CS037) bonafide students of AMC Engineering College in partial fulfilment of the requirements for the award of degree in Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belgaum during academic year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental Attendance. The mini project report has been approved as it satisfies the academic requirements in respect of project work for the said degree.

Guide:

Mrs Veena Bhat Asst. Prof., Dept. of CSE Dr. LATHA C A HOD, Dept. of CSE Dr. A.G NATARAJ Principal, AMCEC

ACKNOWLEDGEMENT

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ABSTRACT

The entitled project "MUSIC MANAGEMENT SYSTEM" is made keeping in mind all the aspects of the Events. The system allows only registered users to login and new users are allowed to register on the application. The Music Database project is to categorize and catalog every single piece of music for music info and albums, internet music service, listing record collections. Why did we choose it? The idea of a music database arose out of common interest of project members in Music. The concept seemed different and very interesting right in the first go. The project provides most of the basic functionality required for a music store. Since all the work that is to be done by this software can also be done manually, but this consumes time, man power and energy. So, this software will be a relief to those who have to do all this work manually. The knowledge of computers and programming has become a basic skill needed to survive in present society.

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INTRODUCTION

This application is used by two users:

- 2 Admin
- User
- The main aim is to provide an easier access to music activities to the User Logins, new subscriptions, create playlist, add and search songs.
 - The Admin can login to the login page and can add songs, add albums and manage users.
 - The Admin updates the albums and songs, as only Admin are authorized.

"MUSIC MANAGEMENT SYSTEM" has been designed to computerize the following functions that are performed by the system:

- Music details
- Subscription details
- Login Logout details

1.1 OBJECTIVES

The **main objective** is to develop Music Library Management MySQL Project is to overcome the manual errors and make a computerized system. In this project, there are various types of modules available to manage Music, Album and Playlist.

1.2 SCOPE

The scope of the project is a system on which software is installed i.e. the project is developed as a desktop application and it will work for an institute but later the project can be modified to operate online and for various organizations.

SYSTEM SPECIFICATION

2.1 HARDWARE REQUIREMENTS

PROCESSOR: Intel i7 7th gen

RAM: 8GB

HARD DISK: 1TB

2.2 SOFTWARE REQUIREMENTS

OS: Microsoft Windows 10, 64 bit

CODING LANGUAGE:

FRONT END: NETBEANS IDE 8.0.2
 It provides drivers for ORACLE database servers so as to connect to the databases very easily.

• BACK END: XAMPP v3.2.4

It is a relational database whose components (tables, forms, queries) are linked (related). The linkages between database components are created by making relationship links between them. The relationship can be:

- ♦ One component and another (one-one relationship)
- ♦ One component related to several other components(one-many)
- ♦ Several database components(many-many)

Creation of relationships between the database components reduces data redundancies and enhances ease of access of the information.

DESIGN

3.1 Description of Music Management System

The system should be designed in such a way that only authorized people should be allowed to access some particular modules. The records should be modified by only administrators and no one else. The user should always be in control of the application and not the vice versa. The user interface should be consistent so that the user can handle the application with ease and speed. The application should be visually, conceptually clear.

STEP 1:

ENTITIES ARE:

- ☐ Admin
- 2 User
- 2 Album
- Songs
- Playlist
- Subscription

STEP 2:

RELATIONS:

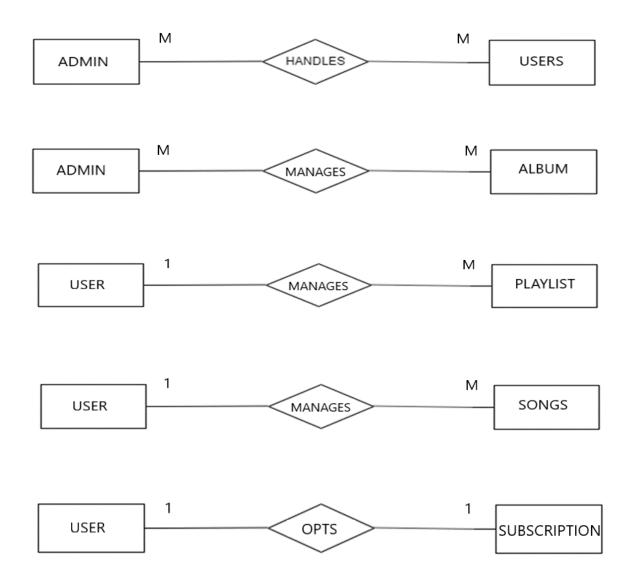


Fig.3.1 Relations

STEP 3:

OTHER ATTRIBUTES:

Admin- admin_id, admin_name, admin_mobile, adnin_password

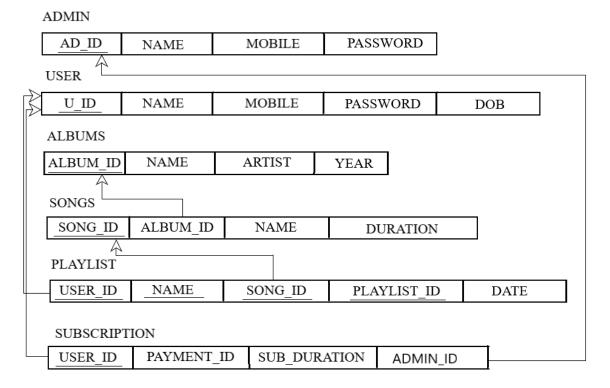
User- user_id, user_name, password, user_mobile, DOB

MUSIC MANAGEMENT SYSTEM

Album- album_id, album_name, artist, year songs- song_id, album_id, name,duration Playlist- user_id, name, song_id, playlist_id, date Subscription-User_id, payment_id, sub_date, admin_id

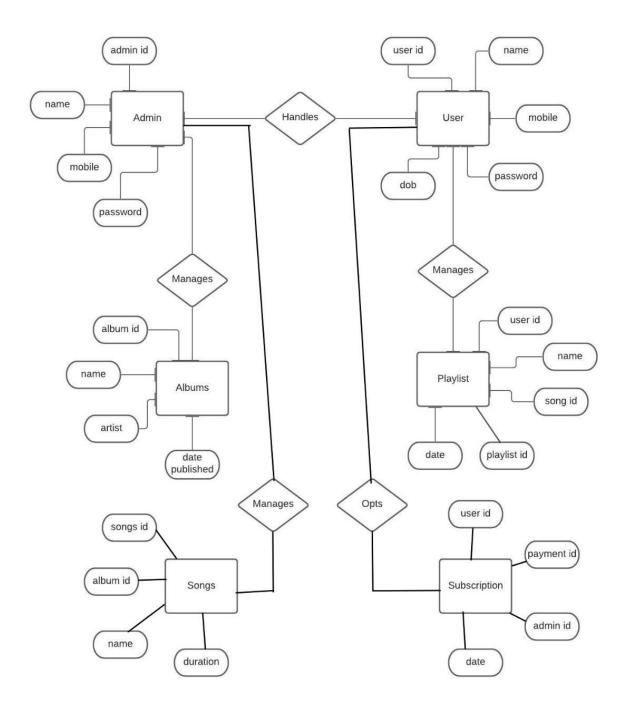
SCHEMA DIAGRAM

Fig.3.2 Schema diagram of Music Management System



STEP 4:

ER DIAGRAM



 $Fig. 3.3 \; ER \; diagram \; of \; Attendance \; Management \; System$

3.2 NORMALISATION

The basic Objective of normalization is to reduce redundancy, which means that information is to be stored only once. Storing information several times leads to wastage of storage space and increase in the total size of data stored. Relations are normalized so that when relations in the database are to be altered during the lifetime of the database, information is not lost or introduces inconsistencies. The type of alterations normally needed for relation is:

Insertion of new data values to relation. This should be possible without being forced to leave blank fields for some attributes.

Deletion of a tuple, namely, a row of a relation. This should be possible without losing vital information unknowingly.

Functional Dependency:

As the concept of dependency is very important, it is essential that it should be understood first and then proceed to the idea of normalization. There is no fool-proof algorithmic method of identifying dependency.

Properties of normalized relations:

Ideals relation after normalization should have the following properties:

No data values should be duplicated in different rows unnecessarily.

A value must be specified (and required) for every attribute in a row.

Each relation should be self-contained. In other words, if a row from a relation is deleted, important information should not be accidentally lost.

When a row is added to a relation, other relations in the database should not be affected.

A value of an attribute in a tuple may be changed independent of other tuples in the relation and other relations.

IMPLEMENTATION AND CODING

4.1 SOURCE CODE

CODE FOR ADMIN LOGIN:

```
String user;
    user = jTextField1.getText();
String pwd;
    pwd = new String (jPasswordField1.getPassword());
if("admin".equals(user) && "admin".equals(pwd)){
new AdminPage().setVisible(true);
this.setVisible(false); }
else {
String msg;
  msg = jTextField1.getText();
String username;
  username = jTextField1.getText();
String pwsd;
  pwsd = new String (iPasswordField1.getPassword());
PreparedStatement stmt=null;
ResultSet rs=null;
int val = 0:
 Class.forName("com.mysql.jdbc.Driver");
 PreparedStatement ps;
 Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
 stmt = conn.prepareStatement("select name from admin");
 rs = stmt.executeQuery();
 while(rs.next()){
  if(username.equals(rs.getString(1))){
  val = 0;
  break;
  }else {
   val=1;
  }}
if(val==1) {
 JOptionPane.showMessageDialog(this,"Enter valid ID and password");
else if(val==0) {
```

```
stmt = conn.prepareStatement("select password from admin where
name=?");
 stmt.setString(1,username);
 rs=stmt.executeQuery();
 val=0;
 while(rs.next()){
  if(pwsd.equals(rs.getString(1))){
    AdminPage admin;
    admin = new AdminPage();
    admin.setVisible(true);
 this.setVisible(false);
 }else{
   JOptionPane.showMessageDialog(this,"Enter valid id and password");
}catch(ClassNotFoundException | SQLException | HeadlessException e){
JOptionPane.showMessageDialog(null,e);}
CODE TO ADD ADMIN:
try
     Class.forName("com.mysql.jdbc.Driver");
     Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
admin(ad_id,name,mobile,password)VALUES(?,?,?,?)";
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField4.getText());
     ps.setString(3,jTextField5.getText());
     ps.setString(4,jPasswordField2.getText());
    ps.executeUpdate();
    ps.close();
     JOptionPane.showMessageDialog(this, "Admin Added", "Admin
Added", JOptionPane. INFORMATION MESSAGE);
  System.out.println("Admin Added");
   }
      catch(Exception e)
         JOptionPane.showMessageDialog(null,e);
```

}

CODE FOR USER LOGIN:

```
String user;
    user = jTextField1.getText();
String pwd;
    pwd = new String (jPasswordField1.getPassword());
if("users".equals(user) && "users".equals(pwd)){
new UserPage().setVisible(true);
this.setVisible(false); }
else {
String msg;
   msg = jTextField1.getText();
String username;
   username = jTextField1.getText();
String pwsd;
   pwsd = new String (iPasswordField1.getPassword());
PreparedStatement stmt=null;
ResultSet rs=null;
int val = 0;
try {
 Class.forName("com.mysql.jdbc.Driver");
 PreparedStatement ps:
 Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
 stmt = conn.prepareStatement("select name from users");
 rs = stmt.executeQuery();
 while(rs.next()){
  if(username.equals(rs.getString(1))){
  val = 0;
  break;
  }else {
   val=1;
  }}
if(val==1) {
 JOptionPane.showMessageDialog(this,"Enter valid ID and password");
else if(val==0) {
 stmt = conn.prepareStatement("select password from users where
name=?");
 stmt.setString(1,username);
 rs=stmt.executeQuery();
 val=0;
Dept. of CSE, AMCEC
```

```
while(rs.next()){
  if(pwsd.equals(rs.getString(1))){
    UserPage admin;
    admin = new UserPage();
    admin.setVisible(true);
 this.setVisible(false);
 }else{
   JOptionPane.showMessageDialog(this,"Enter valid id and password");
}catch(ClassNotFoundException | SQLException | HeadlessException e){
JOptionPane.showMessageDialog(null,e);}
CODE TO ADD USER:
try
     Class.forName("com.mysql.jdbc.Driver");
     Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
users(u_id,name,mobile,dob,admin_id,password)VALUES(?,?,?,?,?)";
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField2.getText());
     ps.setString(3,jTextField3.getText());
     ps.setString(4,jTextField4.getText());
       ps.setString(5,jTextField5.getText());
        ps.setString(6,jPasswordField1.getText());
    ps.executeUpdate();
    ps.close();
     JOptionPane.showMessageDialog(this, "User Added", "User
Added", JOptionPane. INFORMATION_MESSAGE);
  System.out.println("User Added");
   }
      catch(Exception e)
          JOptionPane.showMessageDialog(null,e);
          }
```

CODE TO ADD ALBUM:

```
try
     Class.forName("com.mysql.jdbc.Driver");
     Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
albums(album_id,name,artist,admin_id,date_published)VALUES(?,?,?,?,?)
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField2.getText());
     ps.setString(3,jTextField3.getText());
     ps.setString(4,jTextField4.getText());
     ps.setString(5,jTextField5.getText());
    ps.executeUpdate();
    ps.close();
     JOptionPane.showMessageDialog(this, "Album Added", "Album
Added", JOptionPane. INFORMATION MESSAGE);
  System.out.println("Album Added");
   }
      catch(Exception e)
          JOptionPane.showMessageDialog(null,e);
          }
  }
  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
  new AlbumsList().setVisible(true);
  this.setVisible(false);
CODE TO ADD SONG:
try
    Class.forName("com.mysql.jdbc.Driver");
```

```
Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
songs(song_id,song_name,album_id,duration)VALUES(?,?,?,?)";
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField2.getText());
    ps.setString(3,jTextField3.getText());
    ps.setString(4,jTextField4.getText());
    ps.executeUpdate();
    ps.close();
    JOptionPane.showMessageDialog(this, "Song Added", "Song
Added", JOption Pane. INFORMATION MESSAGE);
  System.out.println("Song Added");
  }
      catch(Exception e)
         JOptionPane.showMessageDialog(null,e);
         }
```

CODE TO SEARCH SONGS:

```
Connection conn;
    PreparedStatement ps;
     try
    { ResultSet rs;
       Class.forName("com.mysql.jdbc.Driver");
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
       String ss;
    ss = jTextField1.getText();
       ps=conn.prepareStatement("select * from songs where song_name =
?");
       ps.setString(1,jTextField1.getText());
       rs=ps.executeQuery();
       ResultSetMetaData rsm = rs.getMetaData();
       int c;
       c =rsm.getColumnCount();
       DefaultTableModel df = ( DefaultTableModel)jTable1.getModel();
       df.setRowCount(0);
```

```
while(rs.next())
{
    Vector v2 = new Vector();
    for(int i=1;i<=c;i++)
    {     v2.add(rs.getString("song_id"));
        v2.add(rs.getString("song_name"));
        v2.add(rs.getString("duration"));
    }
    df.addRow(v2);
}
catch (ClassNotFoundException | SQLException ex) {
}</pre>
```

CODE TO CREATE PLAYLIST:

```
try
     Class.forName("com.mysql.jdbc.Driver");
     Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
playlist(plist_id,p_name,user_id,song_id,date_created)
VALUES(?,?,?,?,?)";
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField2.getText());
    ps.setString(3,jTextField3.getText());
    ps.setString(4,jTextField5.getText());
    ps.setString(5,jTextField4.getText());
    ps.executeUpdate();
    ps.close();
     JOptionPane.showMessageDialog(this, "Playlist Created", "Playlist
Created", JOptionPane. INFORMATION_MESSAGE);
  System.out.println("Playlist Created");
      catch(Exception e)
          JOptionPane.showMessageDialog(null,e);
          }
```

CODE TO SUBSCRIBE:

```
try
     Class.forName("com.mysql.jdbc.Driver");
     Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
    String sql= "INSERT INTO
subscription(payment id,user id,sub date,admin id)VALUES(?,?,?,?)";
    PreparedStatement ps=conn.prepareStatement(sql);
    ps.setString(1,jTextField1.getText());
    ps.setString(2,jTextField2.getText());
     ps.setString(3,jTextField3.getText());
     ps.setString(4,jTextField4.getText());
    ps.executeUpdate();
    ps.close();
     JOptionPane.showMessageDialog(this, "Subscribed
Successfully", "Subscribed
Successfully", JOptionPane. INFORMATION_MESSAGE);
  System.out.println("Subscribed Successfully");
   }
      catch(Exception e)
          JOptionPane.showMessageDialog(null,e);
          }
```

CODE TO VIEW PLAYLIST:

```
Connection conn;
PreparedStatement ps;
try
{ ResultSet rs;
Class.forName("com.mysql.jdbc.Driver");
conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
ps=conn.prepareStatement("SELECT * FROM playlist as A RIGHT
JOIN songs as B ON A.song_id=B.song_id where p_name = ?");
ps.setString(1,jTextField1.getText());
rs=ps.executeQuery();
```

```
ResultSetMetaData rsm = rs.getMetaData();
       int c;
       c =rsm.getColumnCount();
       DefaultTableModel df = ( DefaultTableModel);Table1.getModel();
       df.setRowCount(0);
       while(rs.next())
         Vector v2 = new Vector();
         for(int i=1;i <= c;i++)
           v2.add(rs.getString("song_name"));
           v2.add(rs.getString("duration"));
         df.addRow(v2);
       }
    catch (ClassNotFoundException | SQLException ex) {
    }
CODE TO VIEW ALBUM:
   Connection conn;
    PreparedStatement ps;
     try
    { ResultSet rs;
       Class.forName("com.mysql.jdbc.Driver");
       conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/music
store?zeroDateTimeBehavior=convertToNull","root","");
       ps=conn.prepareStatement("SELECT * FROM albums as A INNER
JOIN songs as B ON A.album_id=B.album_id where name=?");
       ps.setString(1,jTextField1.getText());
       rs=ps.executeQuery();
       ResultSetMetaData rsm = rs.getMetaData();
       int c:
       c =rsm.getColumnCount();
       DefaultTableModel df = ( DefaultTableModel);Table1.getModel();
       df.setRowCount(0);
       while(rs.next())
         Vector v2 = new Vector();
         for(int i=1;i <= c;i++)
           v2.add(rs.getString("album_id"));
           v2.add(rs.getString("artist"));
           v2.add(rs.getString("date published"));
           v2.add(rs.getString("song_name"));
           v2.add(rs.getString("duration"));
         df.addRow(v2);
```

```
}
catch (ClassNotFoundException | SQLException ex) {
}
```

SNAPSHOTS

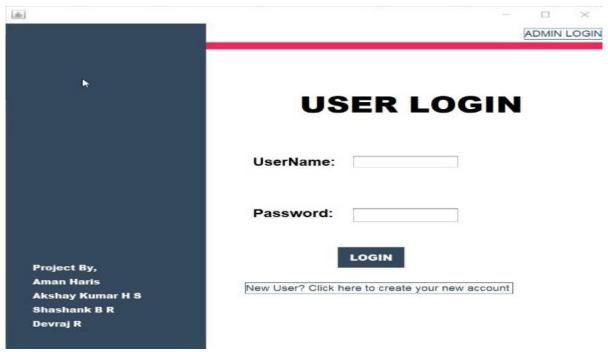


Fig.5.1 User Login

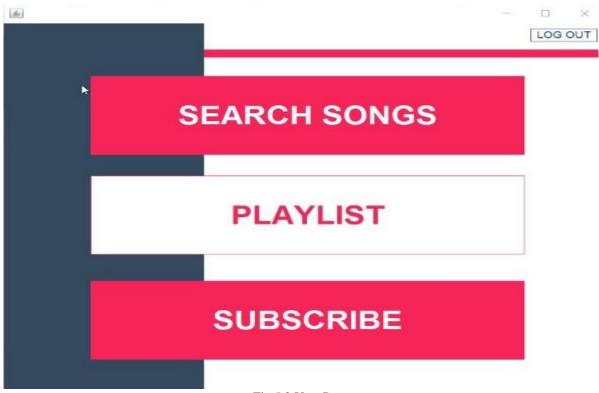


Fig.5.2 User Page

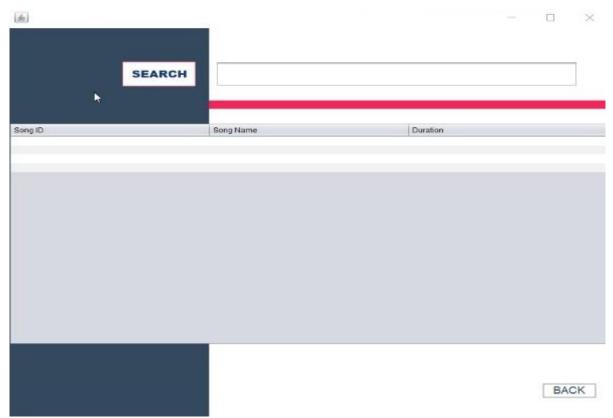


Fig.5.3 Search Songs

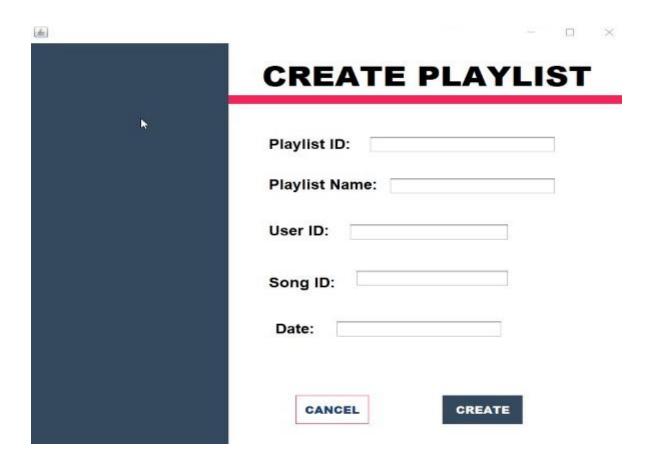


Fig.5.4 Create Playlist

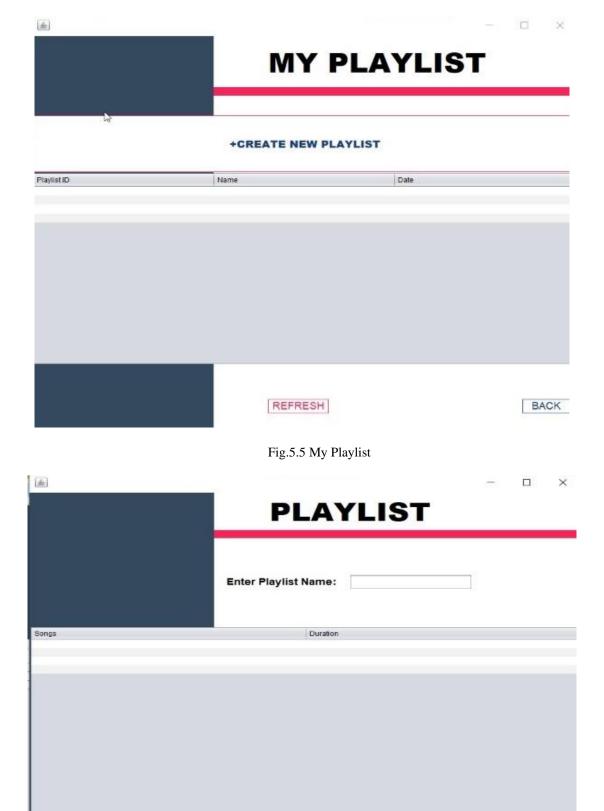


Fig.5.6 Playlist

REFRESH

ADD SONGS

BACK

血	- a ×
	SUBSCRIPTION DETAILS
×	
	Payment ID:
	User ID:
	Date:
	Admin ID:
	BACK SUBSCRIBE
€	Fig.5.7 Subscription
	NEW LISED DETAILS
*	NEW USER DETAILS
	User ID:
	Name:
	Phone No:
	DOB:
	Admin ID:
	Password:
	BACK SUBMIT

Fig.5.8 New User

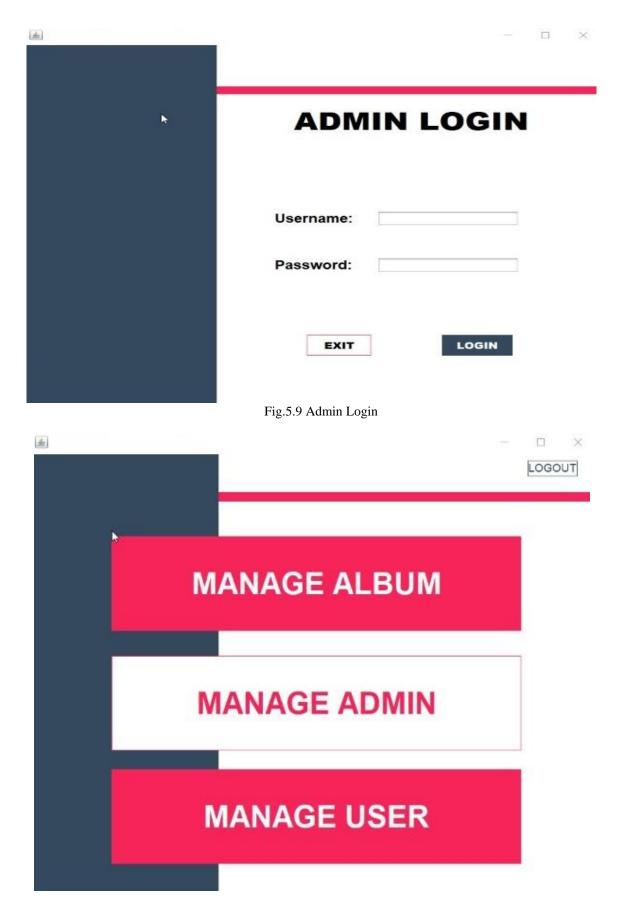


Fig.5.10 Admin Page

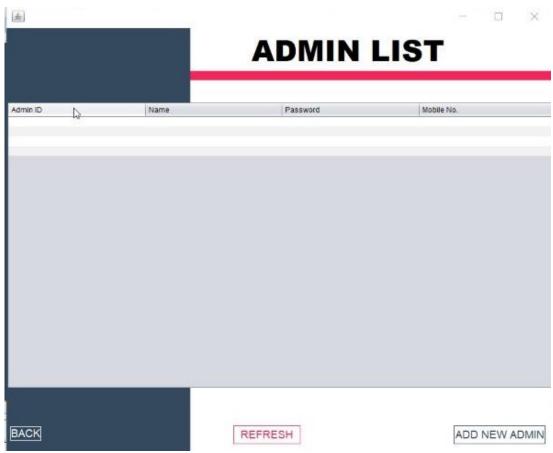


Fig.5.11 Admin List



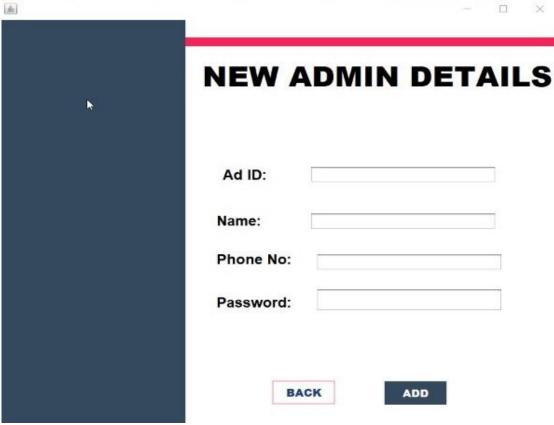


Fig.5.12 New Admin

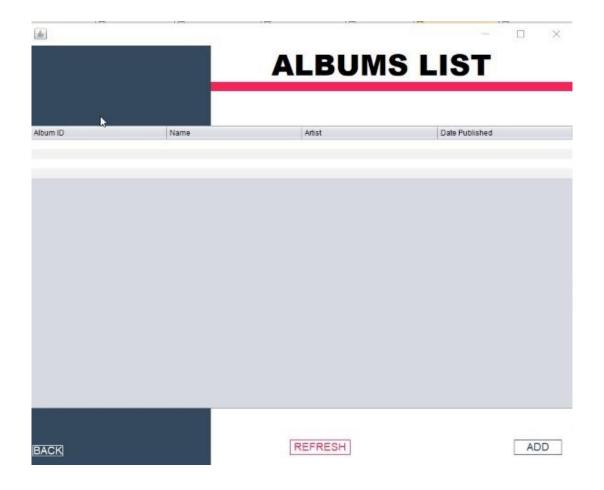


Fig.5.13 Album List

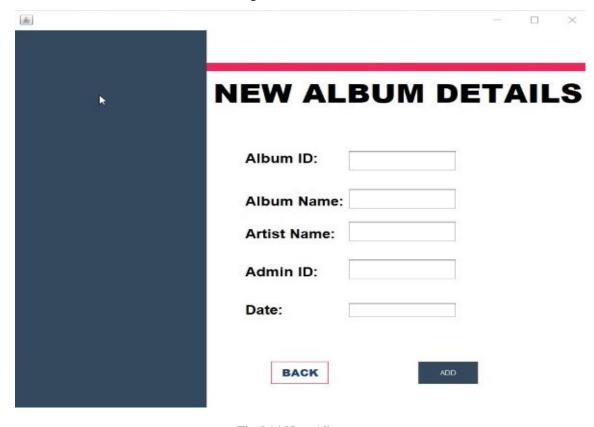


Fig.5.14 New Album

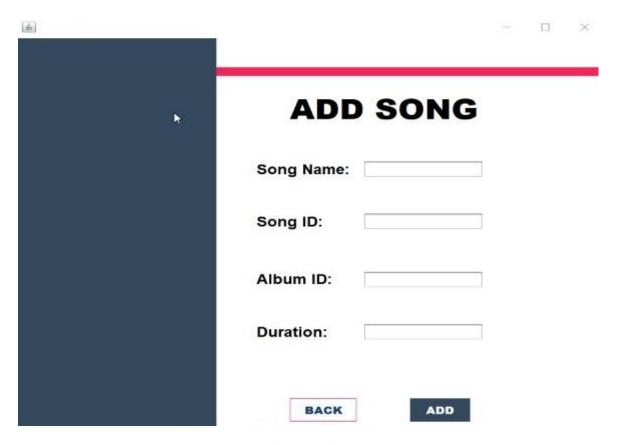


Fig.5.15 Add Songs

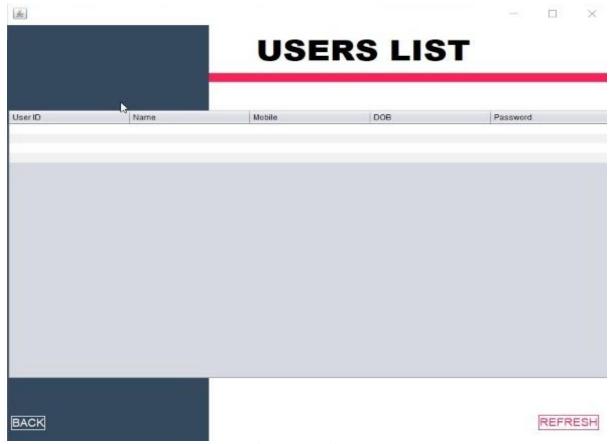


Fig.5.16 User List

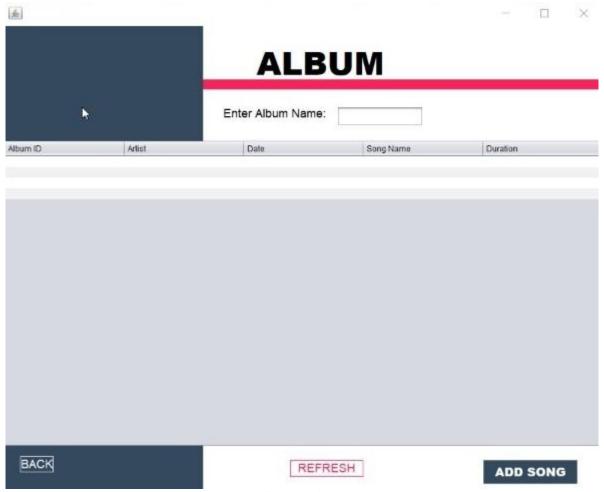


Fig.5.17 Album

CONCLUSION

It gives complete exposure of the requirement of the management for smooth functioning. There are different forms and tables are used. The data is stored in tables automatically. However, the whole system cannot be changed, but the computerized system designed not only saves time but at the same time reduces labour & expenditures. In traditional systems, there were a lot of irregularities found in generating data to where as in modified and computerized systems in every problem overcome with the press of button. This system provides the security from loss, disclosure, modification and destruction of data. This system provides integrity of proper functioning of programs.

REFERENCES

- [1] www.google.com
- [2] www.youtube.com