MUSIC MANAGEMENT SYSTEM

Submitted in partial fulfilment of the requirements for the degree of

Bachelor of Technology

in

Computer Science and Engineering

By

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November 2022

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1. ABSTRACT

The project Music management system is management software for monitoring and controlling the features of music. The project is to make a website which allows the users to listen to music and add their own collection of songs or albums which contribute towards the broadening of the website.

2. INTRODUCTION

2.1. OBJECTIVE

The objective of music management system project is to develop a web-based sample relational music application which provides users with multiple song options, categories and community polls with admin access to feedback, uploading of new songs, removing any current songs, etc. over PHP, MySQL which runs on WAMP, XAMPP or Apache2 server. The main objective was to divide the site into modules and provide user a satisfying experience.

2.2. SCOPE

The project scope is very large, it can be used by musicians, music lovers and anyone who are keen to listen or publish music albums. This project aims to create an interactive, maintainable and efficient application for the new or growing musicians who would like to upload their music free of cost along with the added functionality of making playlists/albums. This music management system can also be used to maintain audiobooks chapter-wise which is most commonly used by people. The song recommendation system embedded in this project will also help in suggesting music to the users.

2.3. DESCRIPTION ABOUT PRODUCT:

The product is the music management website which allows the user to listen to their favourite albums. The website has Submit Feedback option where the users can submit the feedback and the admins are authenticated when they log in to their account and the admins have access to delete/ modify existing songs. Admins can also view the feedback given by users and they can also add new users like verified musicians and authenticate them so that they can upload their albums conveniently. The website also has additional features like voting for your favourite song or genre and viewing statistics of votes, security where the musicians are authenticated and albums are verified in order to prevent stealing of albums.

3. LITERATURE SURVEY

3.1. SURVEY OF EXISTING WORK

The study and implementation of music technology in music education can be placed into certain categories, depending on how the technology is used. Starting with asynchronous delivery of content, one can explore distance learning, which is mainly being explored and implemented at the collegiate level [1]. We conclude that there is a large scope for the research work. Maximum work is done on the western instrument and very less work is done on the Indian instrument. Need to work on the Indian instrument, which is a very huge area for research [2].The focuses of research are defined based on two things; adaptiveness and actor(s) orientation. Some research in the music business model pertained to static or dynamic adaptiveness. In actor(s) orientation, this categorization of literature review is based on two things; single actor perspective and multi actor perspective [3].

3.2. SUMMARY OF THE SURVEY

In the period of chaotic transition from 2000 to 2015, however, public debates paid little attention to questions concerning how musicians would actually make money in the still-forming digital era, from what sources, and how musical careers might be sustained, beyond speculations about the new opportunities offered by ‘disintermediation’ and new possibilities such as ‘crowdfunding’. There is a lot of research needed to be done in Indian musical instruments.

4. PROPOSED WORK

The current existing models provide user the basic features but asks for subscription and premiums for advance ones. The advertisements in such cases can be annoying for the user, in such case to fill the gap and provide a free service or minimize the cost we tried to design a user friendly with security where musicians have to contact admins to upload their songs and admins can authenticate musician’s albums after authentication of the musician's details in order to prevent stealing of albums. The admins can create new account for the musicians and provide login credentials to the musician after properly verifying the musician’s identity so that the musicians can upload albums or songs conveniently.

5. PROJECT MANAGEMENT

5.1. PROCESS MODEL

The process model used is Waterfall Model due to the surety of requirements in the initial stage itself.

5.2. PROJECT SCHEDULING

Project scheduling is done using Gantt, Pert and timeline charts

5.2.1. GANTT CHART

ID	Task Name	Start	Finish	Duration	Complete
1	Requirements	2023-07-20	2022-07-28	7.0 d.	14.3%
2	Analysis	2023-07-29	2022-08-11	10.0 d.	25.0%
3	Design	2023-08-12	2022-08-22	7.0 d.	35.7%
4	Backend implementation	2023-08-23	2022-09-19	20.0 d.	12.5%
5	Login page	2023-09-20	2022-09-21	2.0 d.	50.0%
6	Add user page	2023-09-22	2022-09-23	2.0 d.	50.0%
7	Add album page	2023-09-26	2022-09-27	2.0 d.	100.0%
8	Add category page	2023-09-28	2022-09-29	2.0 d.	100.0%
9	Album by category page	2023-09-29	2022-09-30	2.0 d.	100.0%
10	Vote page	2023-10-03	2022-10-04	2.0 d.	100.0%
11	Vote stat page	2023-10-05	2022-10-06	2.0 d.	100.0%
12	About us page	2023-10-07	2022-10-10	2.0 d.	100.0%
13	Program testing and error control	2022-10-11	2022-10-17	5.0 d.	40.0%
14	User testing	2023-10-18	2022-10-31	10.0 d.	20.0%
15	Project delivery and presentation	2022-11-01	2022-11-09	7.0 d.	28.6%

ID	Task Name	Start	Finish	Duration	Complete
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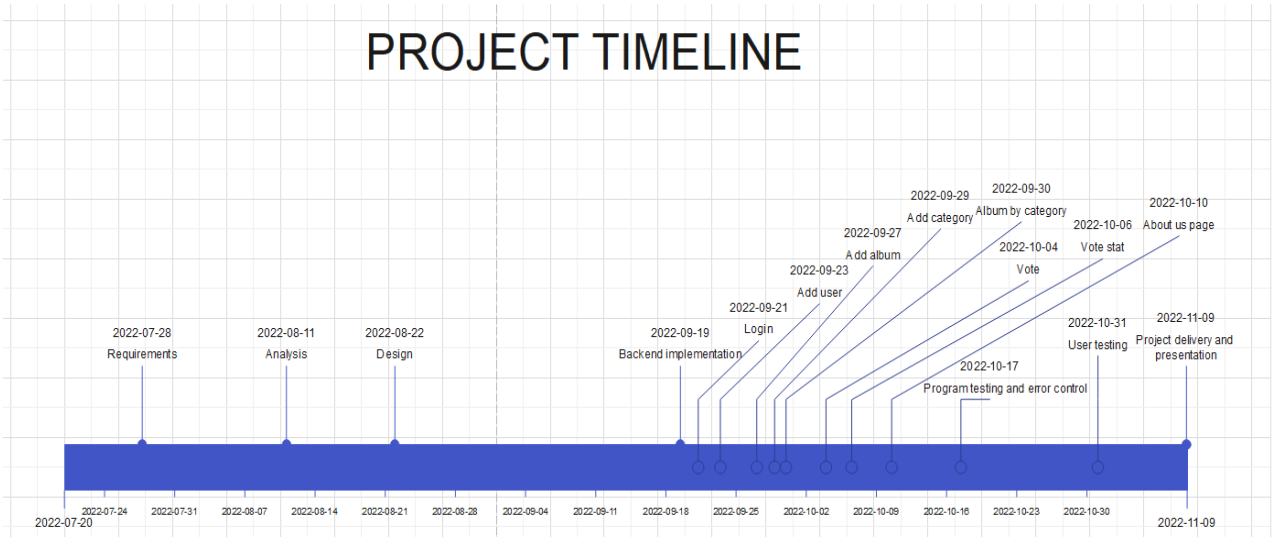
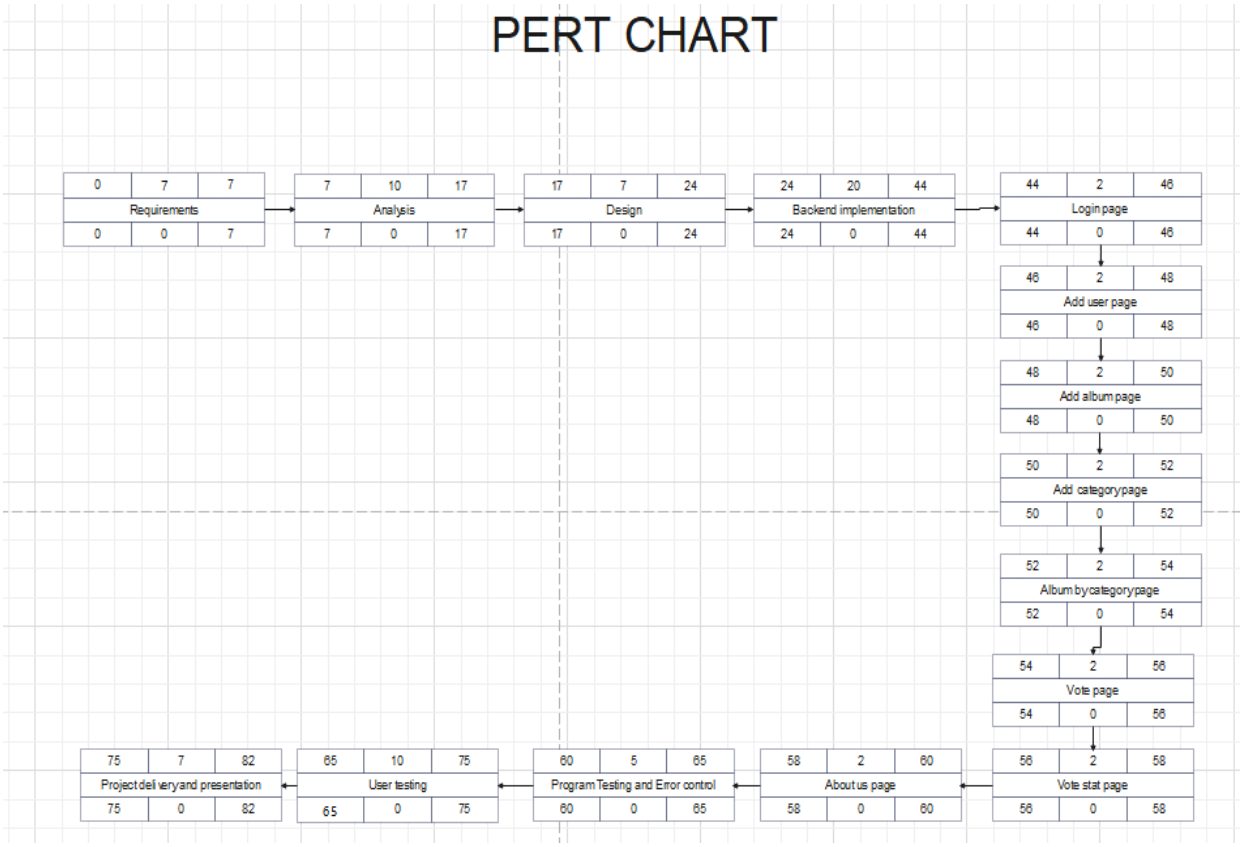
3	Design	2022-08-12	2022-08-22	7.0 d.	35.7%
4	Backend implementation	2022-08-23	2022-09-19	20.0 d.	12.5%
5	Login page	2022-09-20	2022-09-21	2.0 d.	50.0%
6	Add user page	2022-09-22	2022-09-23	2.0 d.	50.0%
7	Add album page	2022-09-26	2022-09-27	2.0 d.	100.0%
8	Add category page	2022-09-28	2022-09-29	2.0 d.	100.0%
9	Album by category page	2022-09-29	2022-09-30	2.0 d.	100.0%
10	Vote page	2022-10-03	2022-10-04	2.0 d.	100.0%
11	Vote stat page	2022-10-05	2022-10-06	2.0 d.	100.0%
12	About us page	2022-10-07	2022-10-10	2.0 d.	100.0%
13	Program testing and error control	2022-10-11	2022-10-17	5.0 d.	40.0%
14	User testing	2022-10-18	2022-10-31	10.0 d.	20.0%
15	Project delivery and presentation	2022-11-01	2022-11-09	7.0 d.	28.6%

5.2.2.TIMELINE CHART



5.2.3. PERT CHART



5.3. TABULATION OF RISKS

Risk analysis	Risk management
Data privacy Admin and user's credentials are stored in database which are at a risk of security attacks.	Admin and User data should be encrypted while storing using strong algorithms to prevent security breaches.
Internet A good internet connection is required to load the website which is not present in remote areas.	The website is designed in a way that it loads basic necessary features in presence of low-speed internet connection.
Technology People in remote areas are not much familiar with usage of phone and its websites.	The website mostly is designed in a simple manner with user familiarity so that people in remote areas can also make use of basic features and also help option will be available for users anytime for the assistance.
Transaction The attacker may steal credit card/debit card information from the payment page.	The website is protected by https protocol to ensure secure transaction.
Vote There may be fake votes given to their favourite songs by single user.	Vote can be given only once for a day by a user and user credentials are authenticated while logging in to the website.

6. REQUIREMENTS

6.1. FUNCTIONAL REQUIREMENTS

a. Registration

To enter this site a user must register himself first. Requirements of the registration are the first name, last name, email id, password, confirm password, id proof (Aadhar card/PAN card).

b. User Login

The system provides the facility to login into the system. The system will check the input of the user and if valid, then login is done otherwise, the user will be asked to re-enter the username and the password.

c. Forgot Password

The user can use reset link sent to the mail id to reset the password. It will change the password and update the new password in the database.

d. Administrator

Admin is provided with the information of user and songs. Admin can update the system software to meet the requirements. He can view registered user's information, update the system and add new latest songs.

e. User

The user can view the details of song (like singer, music director, genre, language of that song). The user can be able to search for various types of songs. In this website the user can just view the details but cannot manipulate. This website allows the user to submit a feedback form.

f. Registered Users

Registered users can buy or download the albums and add new albums into the website. Registered users can manage their profile by adding new playlists, songs and changing settings according to requirements.

6.2. NON-FUNCTIONAL REQUIREMENTS

a. Performance Requirements

The system needs to be reliable. If unable to process the request, then appropriate error message should be displayed. Web pages are to be located within the few seconds. The requested songs in this website should be loaded with in few seconds (with good internet connectivity).

b. Safety Requirements

The login details of the user need to be maintained properly. Users can be authenticated. The database should be continuously backed up.

c. Security Requirements

After entering the password and user id the user can access his profile and can make necessary changes (if required). The details of the user must be safe and secure.

d. Software Quality Attributes

1. **Usability**

The software will be embedded in a website. It should be scalable and easily adopted by a system.

2. **Reliability**

The system should have accurate results and fast responses to user's changing habits. Security User profile information will be used, so data security is one of the most important concerns of the system.

7. DESIGN

7.1. INTRODUCTION

The main purpose of this product is to design a website which would permit the clients to tune in to free music and even add their own assortment of tunes or collections. This product is designed to provide users with all the new releases, top 6 songs with rankings, news, featured songs, vote their favourite song and listen to the song. The users can simply view all the albums and click any one of them to listen to their songs.

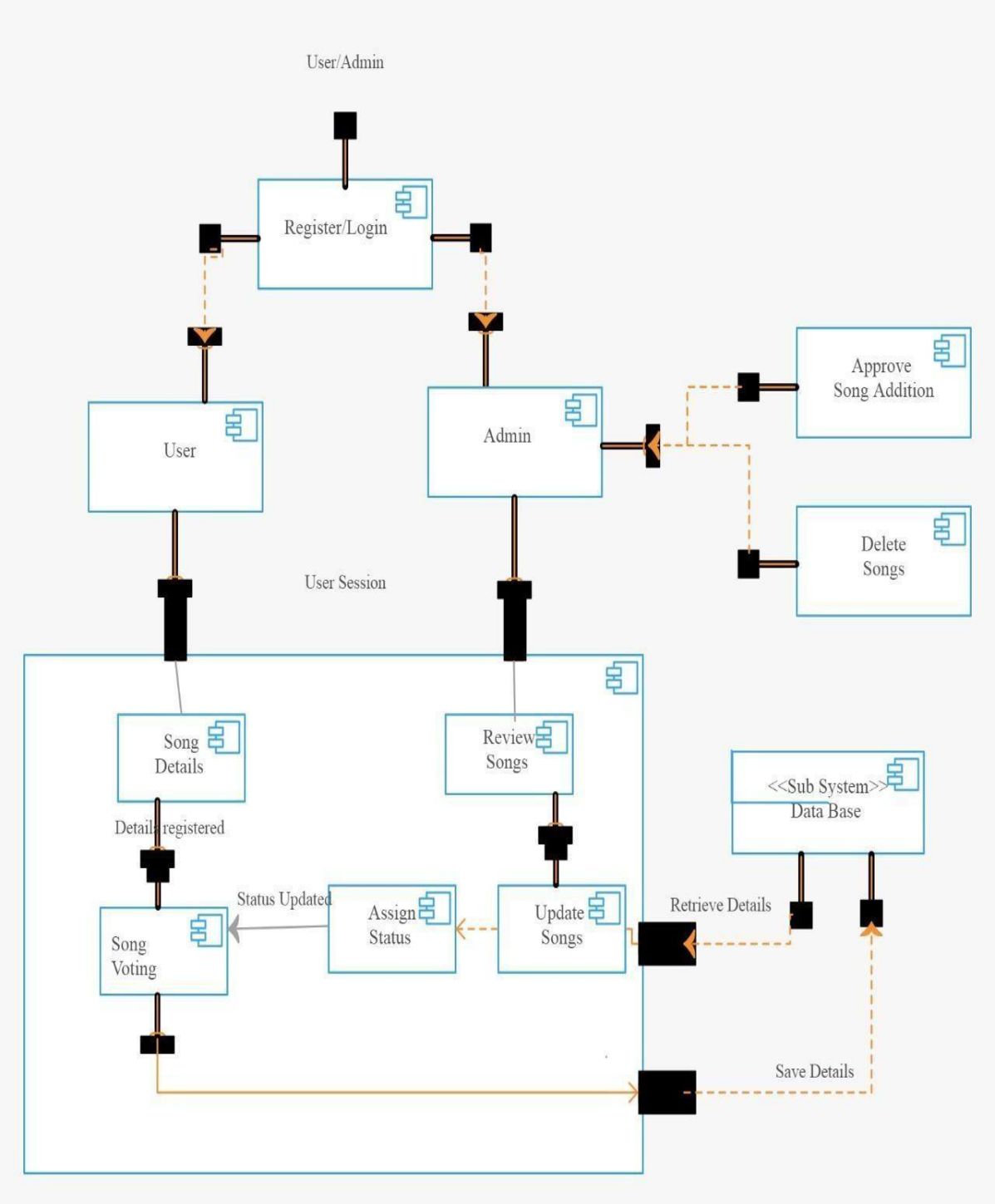
7.2. SYSTEM ARCHITECTURE DESIGN

The modules present in system architecture design are Community Poll Survey, Admin Login, Provide Feedback and Editing Albums.

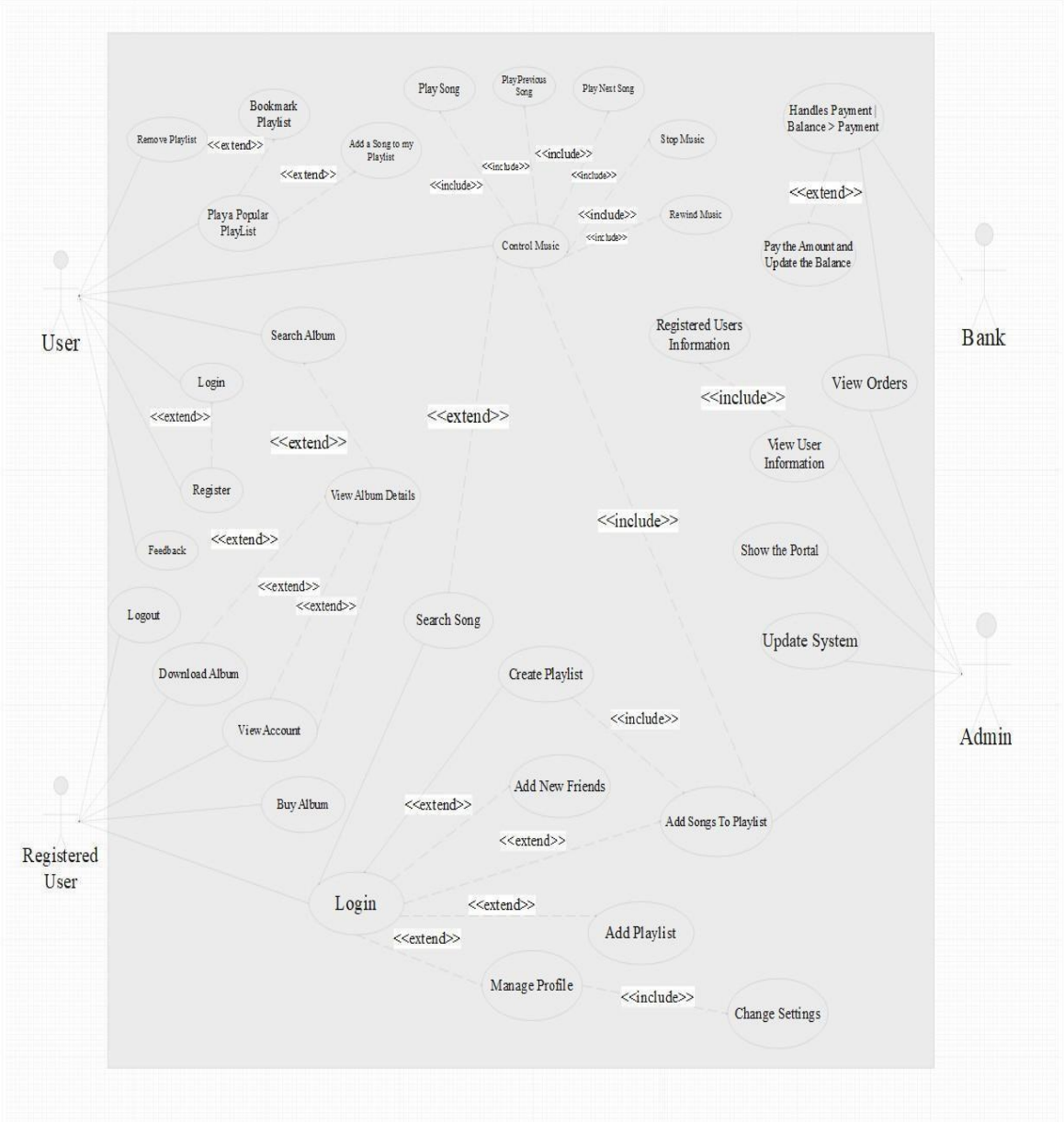
- **Community Poll Survey: -**User will be able to vote for their favourite songs and also view the songs according to song ranking.
- **Admin Login: -** Through Admin login we can login user can login to their account and access the privileges such as adding the songs to the album, viewing the feedback of the users.
- **Provide Feedback: -**The users can provide feedback through the feedback option in the website so that the admin can see the feedback about the songs. The users must be able to read reviews and provide feedback to the system.
- **Editing Albums: -** The registered users will be given privilege of adding or removing songs from their albums. They can even add their new songs into the website or they can even remove songs from the website.

7.3. APPENDICES

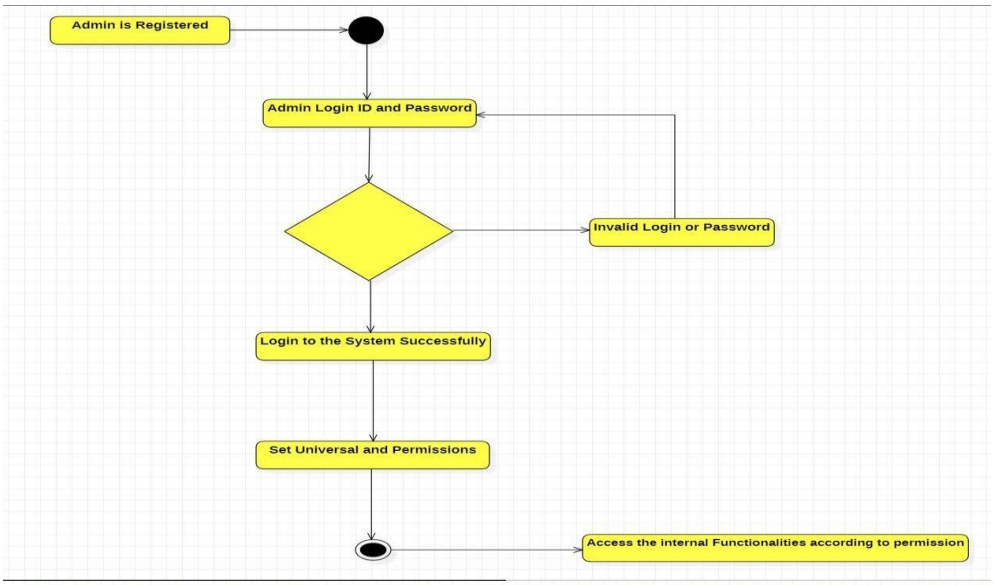
7.3.1 Component diagram

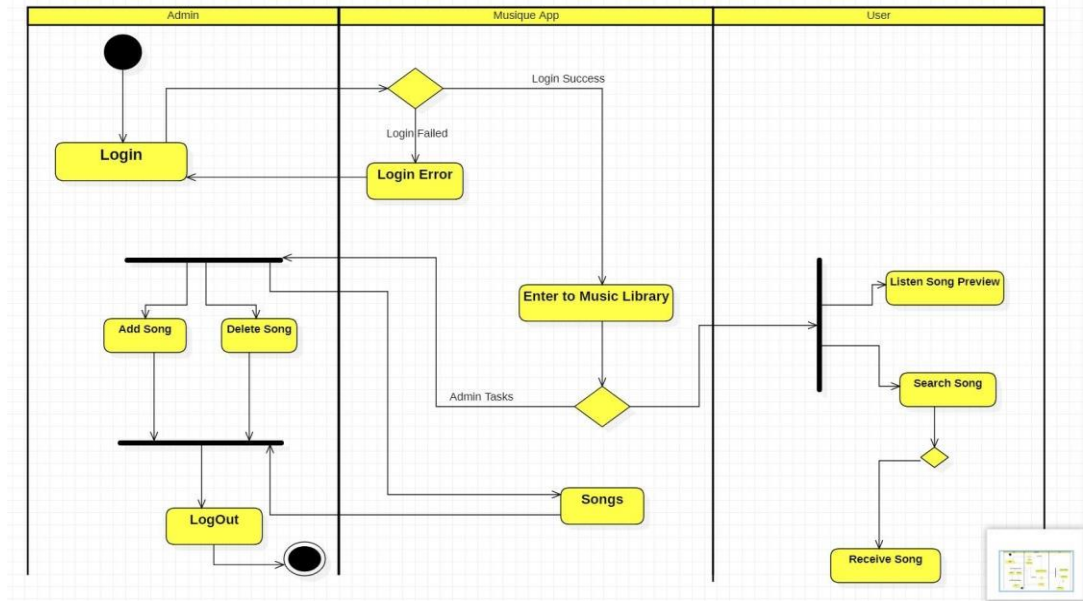


7.3.2 Use case diagram

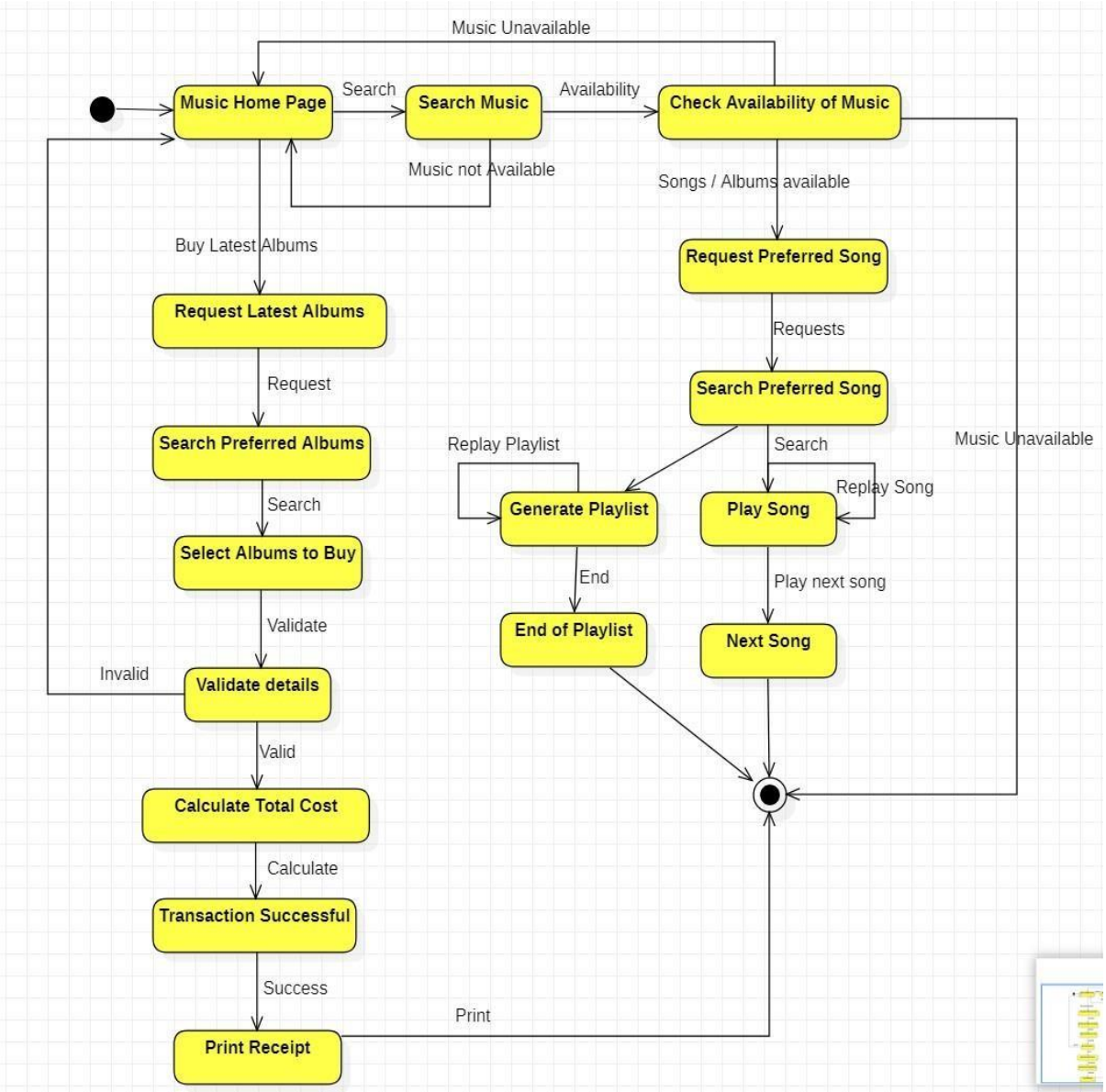


7.3.3 Activity diagram

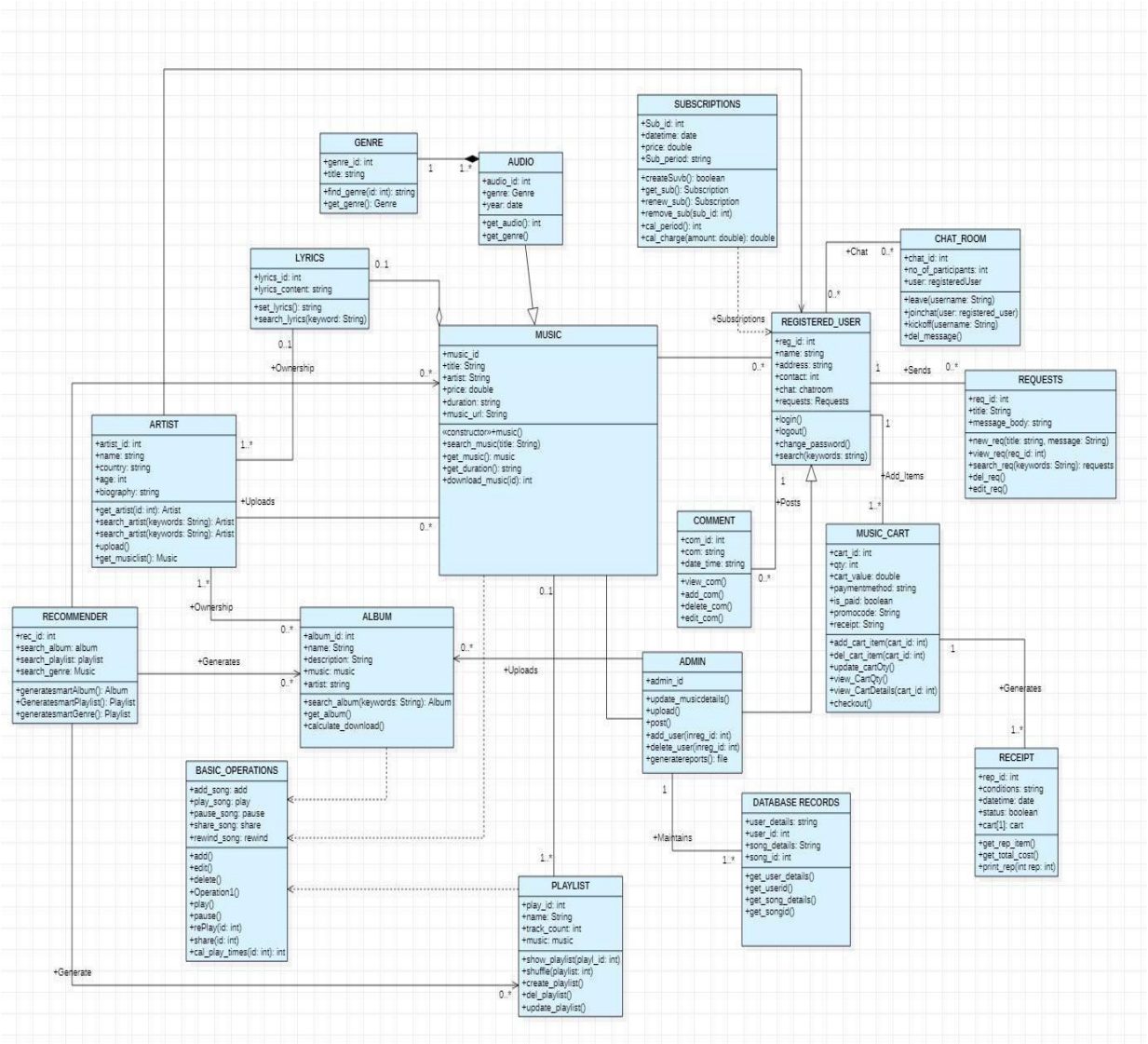




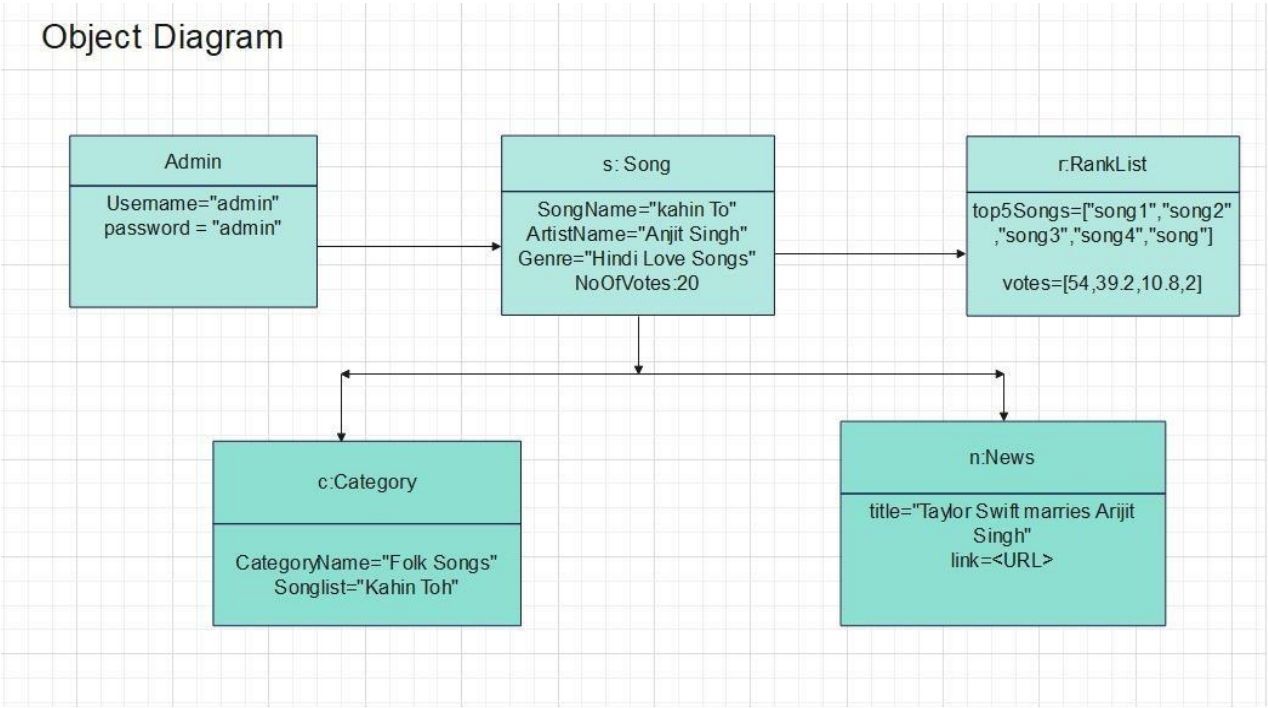
7.3.4 State chart diagram



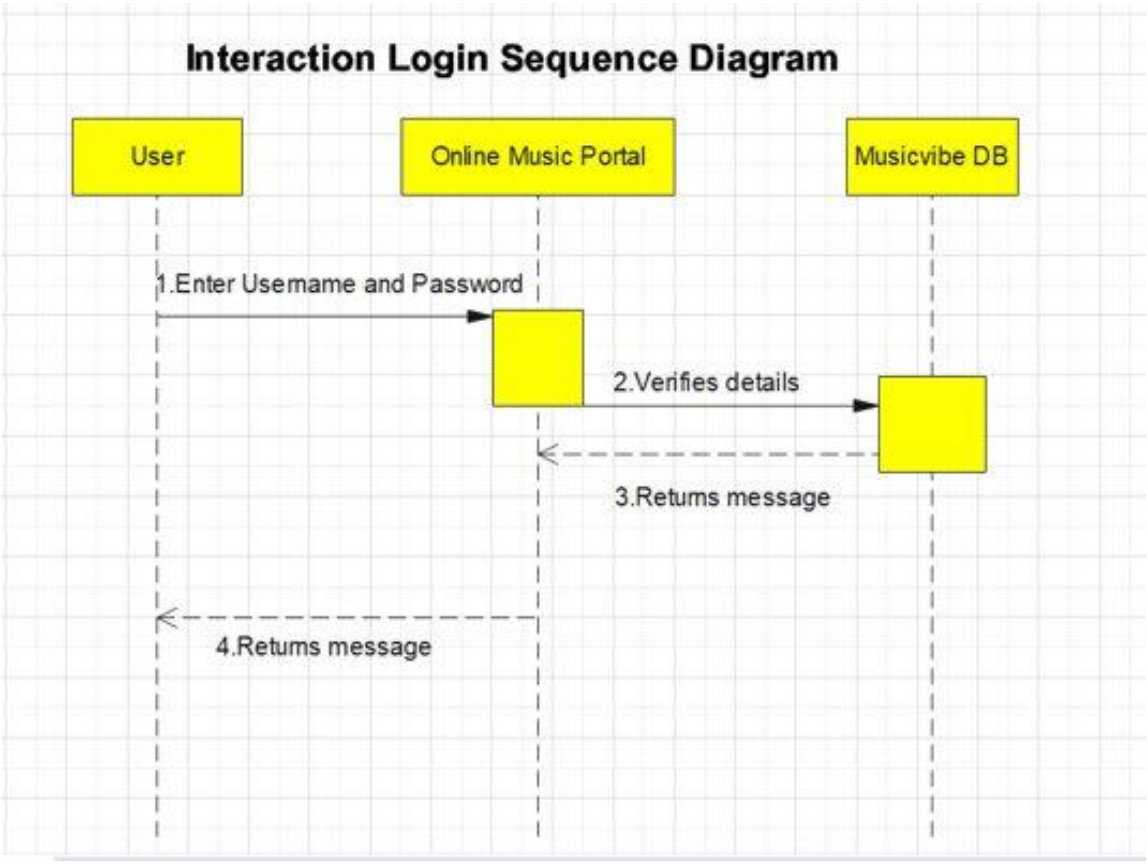
7.3.5 Class diagram



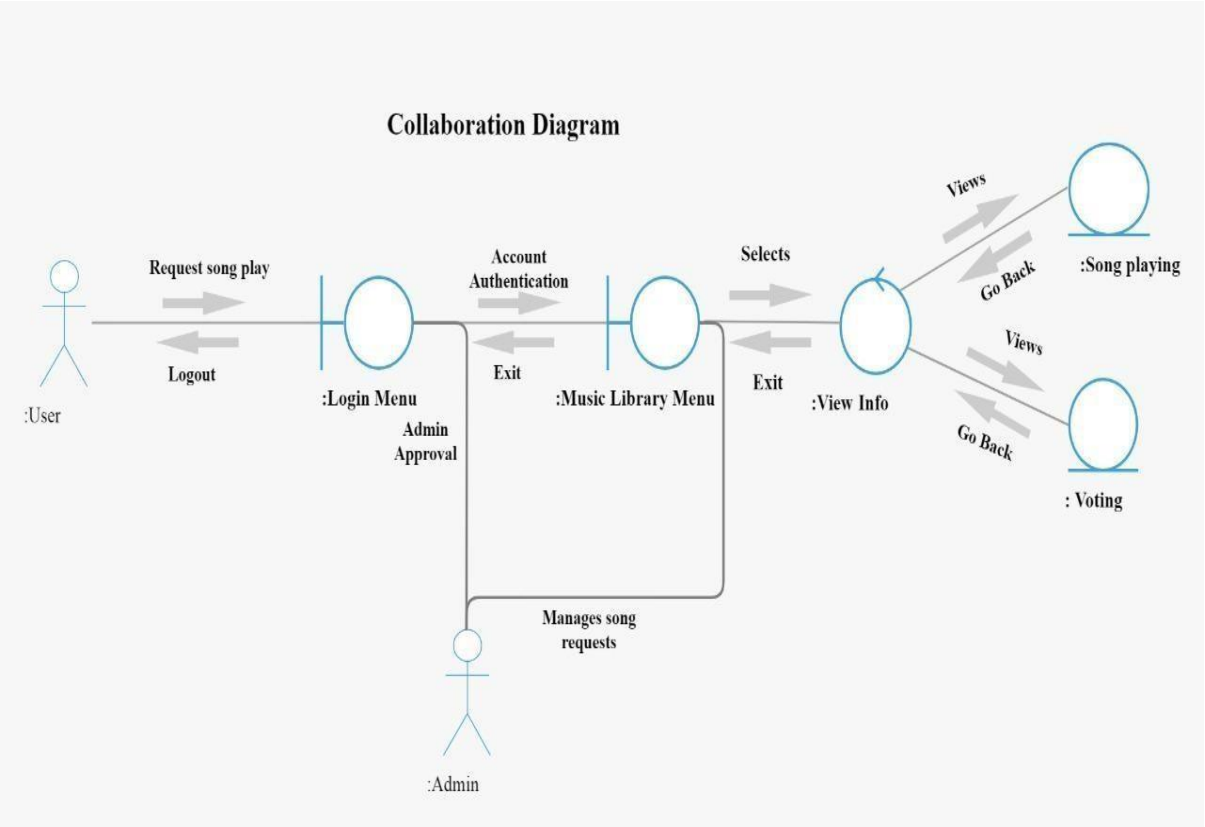
7.3.6 Object diagram



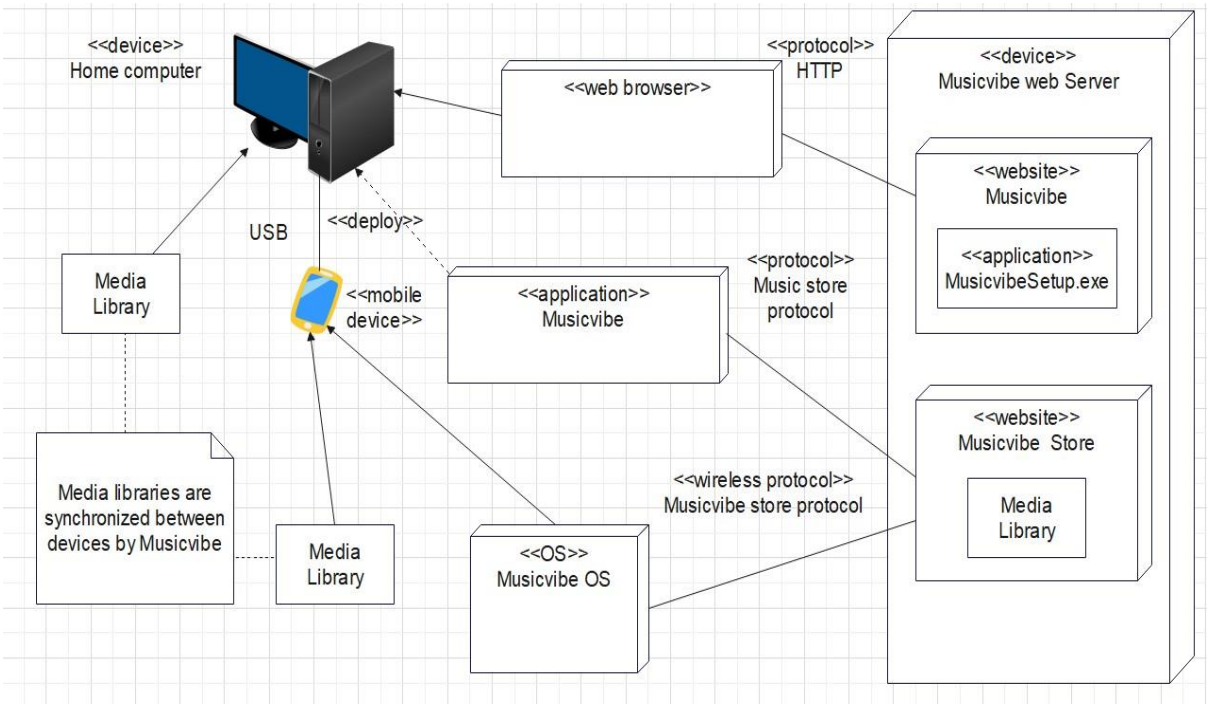
7.3.7 Sequence diagram



7.3.8 Collaboration diagram

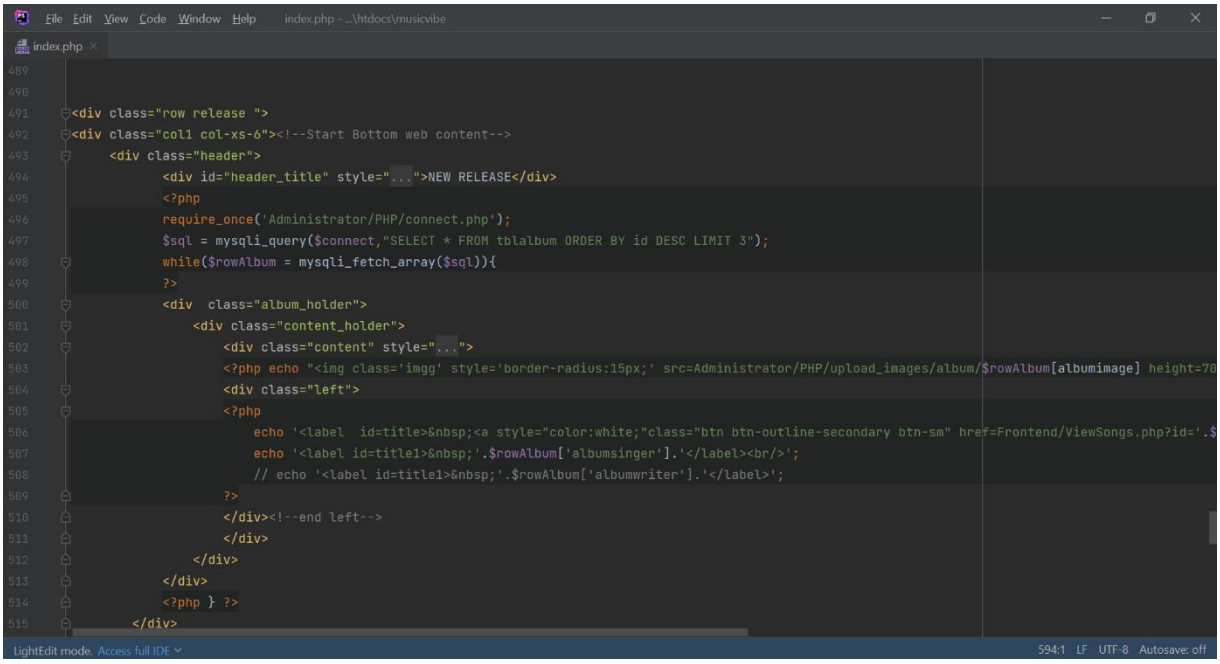


7.3.9 Deployment diagram



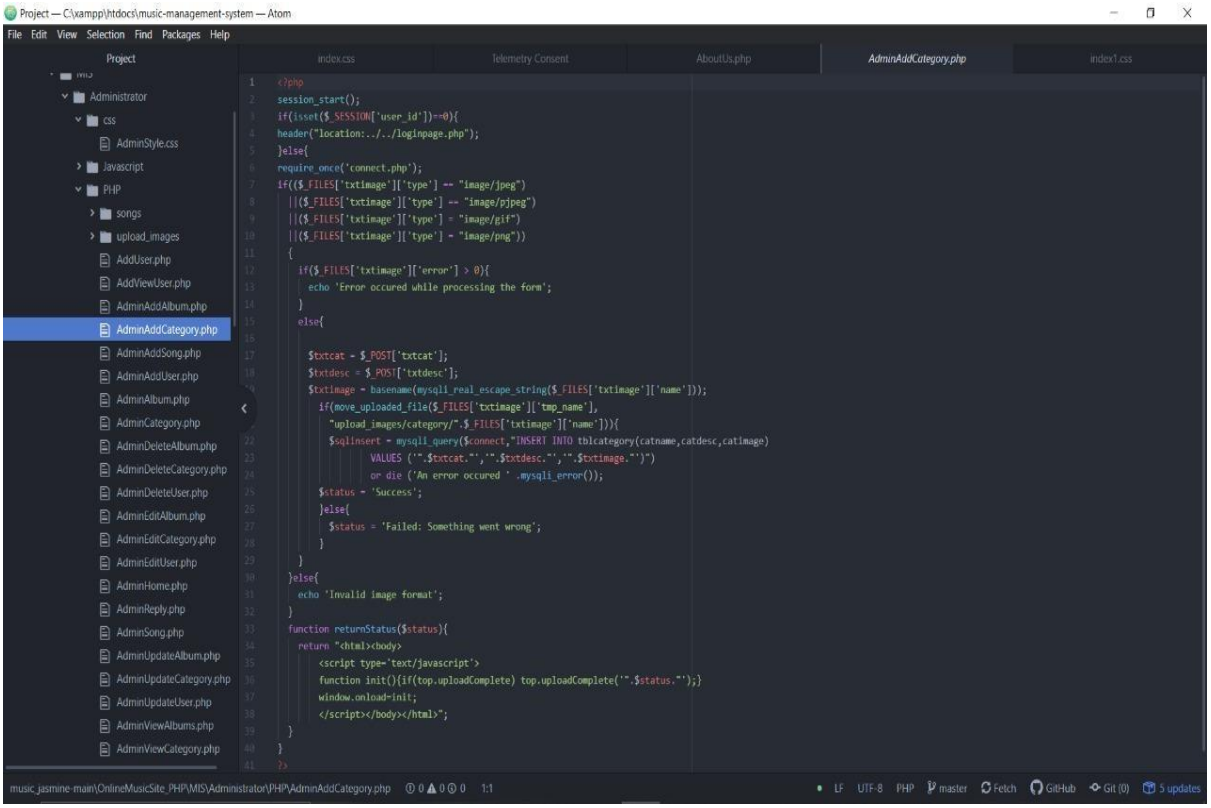
8. CODE

Index.php



```
<div class="row release ">
<div class="col1 col-xs-6"><!--Start Bottom web content-->
    <div class="header">
          <div id="header_title" style="...">NEW RELEASE</div>
          <?php
          require_once('Administrator/PHP/connect.php');
          $sql = mysqli_query($connect,"SELECT * FROM tblalbum ORDER BY id DESC LIMIT 3");
          while($rowAlbum = mysqli_fetch_array($sql)){
          ?>
          <div  class="album_holder">
              <div class="content_holder">
                  <div class="content" style="...">
                  <?php echo "<img class='imgg' style='border-radius:15px;' src=Administrator/PHP/upload_images/album/$rowAlbum[albumimage] height=70
                  <div class="left">
                  <?php
                      echo '<label  id=title> <a style="color:white;"class="btn btn-outline-secondary btn-sm" href=Frontend/ViewSongs.php?id='.$
                      echo '<label id=title1> '.$rowAlbum['albumsinger'].'</label><br/>';
                      // echo '<label id=title1> '.$rowAlbum['albumwriter'].'</label>';
                  ?>
                  </div><!--end left-->
                  </div>
              </div>
          </div>
          <?php } ?>
      </div>
```

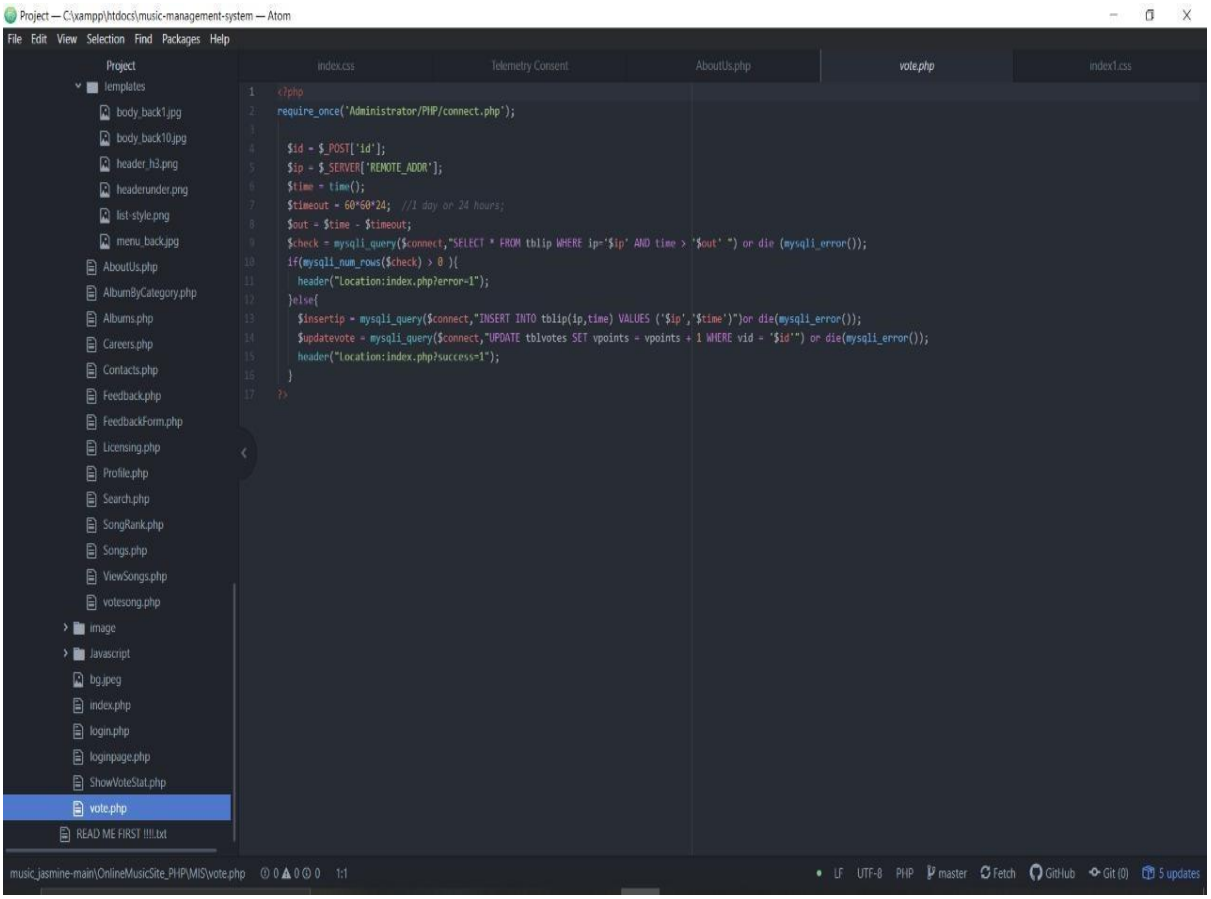
Admin add category.php



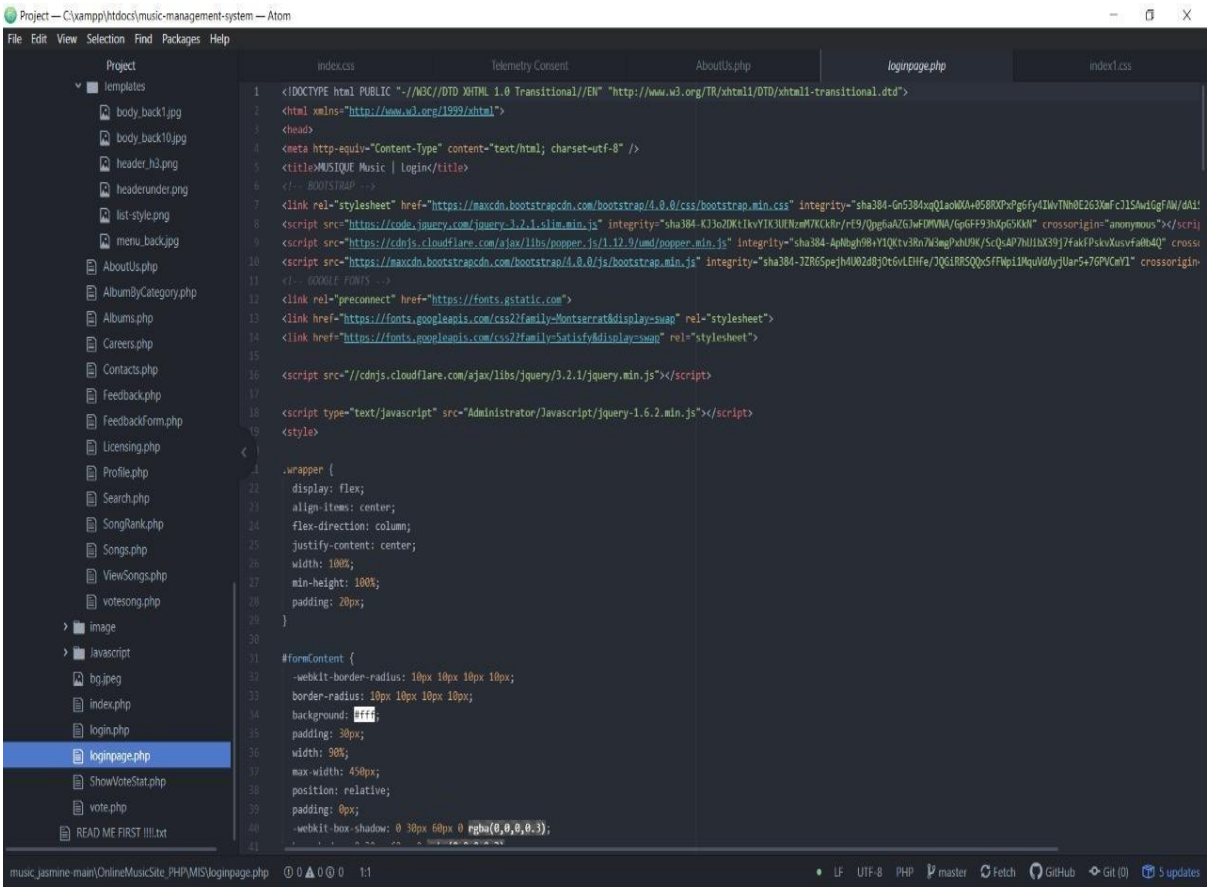
```
<?php
session_start();
if(isset($_SESSION['user_id'])==0){
header("location:../../loginpage.php");
}else{
require_once('connect.php');
if(($_FILES["txtimage"]["type"] == "image/jpeg")
  ||($_FILES['txtimage']['type'] == "image/pjpeg")
  ||($_FILES['txtimage']['type'] = "image/gif")
  ||($_FILES['txtimage']['type'] = "image/png"))
  {
    if($_FILES['txtimage']['error'] > 0){
      echo 'Error occured while processing the form';
    }
    else{

      $txtcat = $_POST['txtcat'];
      $txtdesc = $_POST['txtdesc'];
      $txtimage = basename(mysqli_real_escape_string($_FILES['txtimage']['name']));
        if(move_uploaded_file($_FILES['txtimage']['tmp_name'],
          "upload_images/category/".$_FILES['txtimage']['name'])){
          $sqlinsert = mysqli_query($connect,"INSERT INTO tblcategory(catname,catdesc,catimage)
                  VALUES ('".$txtcat."','".$txtdesc."','".$txtimage."')")
                  or die ('An error occured ' .mysqli_error());
        $status = 'Success';
        }else{
          $status = 'Failed: Something went wrong';
        }
    }
  }else{
    echo 'Invalid image format';
  }
  function returnStatus($status){
    return "<html><body>
        <script type='text/javascript'>
        function init(){if(top.uploadComplete) top.uploadComplete('".$status."');}
        window.onload=init;
        </script></body></html>";
  }
}
?>
```

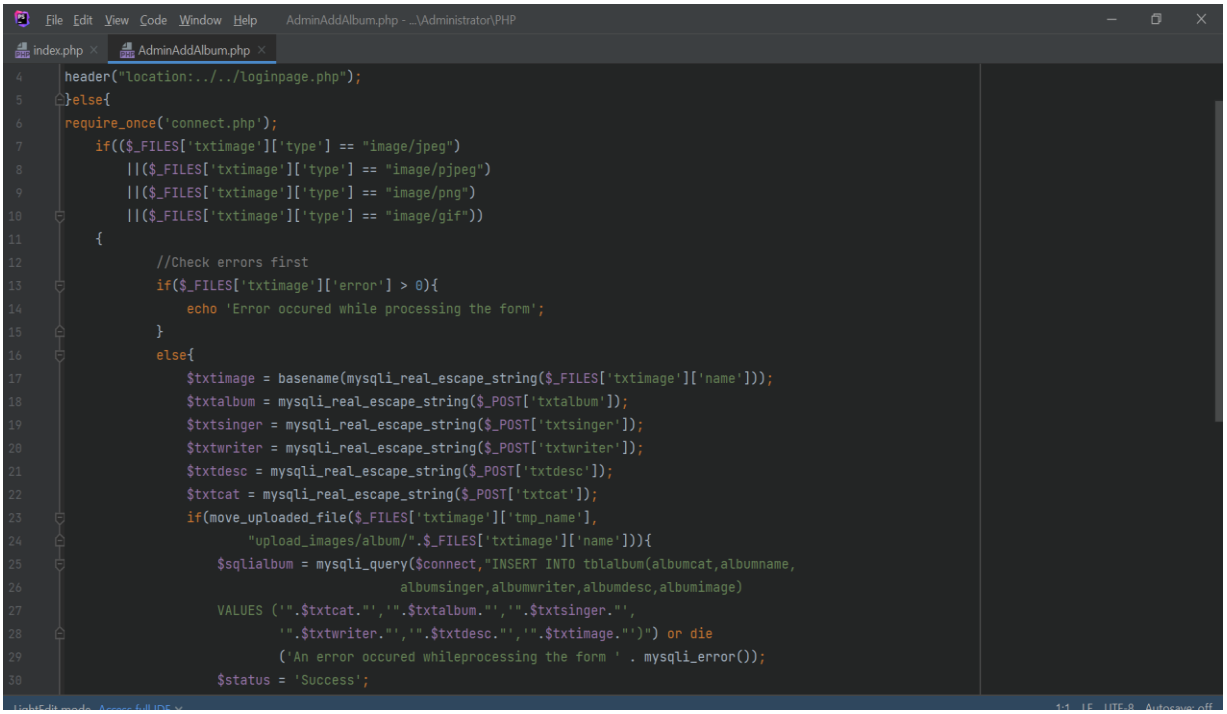
Vote.php


Project — C:\xampp\htdocs\music-management-system — Atom
File Edit View Selection Find Packages Help
Project
templates
body_back1.jpg
body_back10.jpg
header_h3.png
headerunder.png
list-style.png
menu_back.jpg
AboutUs.php
AlbumByCategory.php
Albums.php
Careers.php
Contacts.php
Feedback.php
FeedbackForm.php
Licensing.php
Profile.php
Search.php
SongRank.php
Songs.php
ViewSongs.php
votesong.php
image
Javascript
bg.jpeg
index.php
login.php
loginpage.php
ShowVoteStat.php
vote.php
READ ME FIRST !!!!.txt
index.css
Telemetry Consent
AboutUs.php
vote.php
index1.css
1 <?php
2 require_once('Administrator/PHP/connect.php');
3
4 $id = $_POST['id'];
5 $ip = $_SERVER['REMOTE_ADDR'];
6 $time = time();
7 $timeout = 60*60*24; //1 day or 24 hours;
8 $out = $time - $timeout;
9 $check = mysqli_query($connect,"SELECT * FROM tblip WHERE ip='$ip' AND time > '$out' ") or die (mysqli_error());
10 if(mysqli_num_rows($check) > 0){
11 header("Location:index.php?error=1");
12 }else{
13 $insertip = mysqli_query($connect,"INSERT INTO tblip(ip,time) VALUES ('$ip','$time')")or die(mysqli_error());
14 $updatevote = mysqli_query($connect,"UPDATE tblvotes SET vpoints = vpoints + 1 WHERE vid = '$id'") or die(mysqli_error());
15 header("location:index.php?success=1");
16 }
17 ?>
music_jasmine-main\OnlineMusicSite_PHP\MIS\vote.php
1:1
LF UTF-8 PHP master Fetch GitHub Git (0) 5 updates

Login page.php

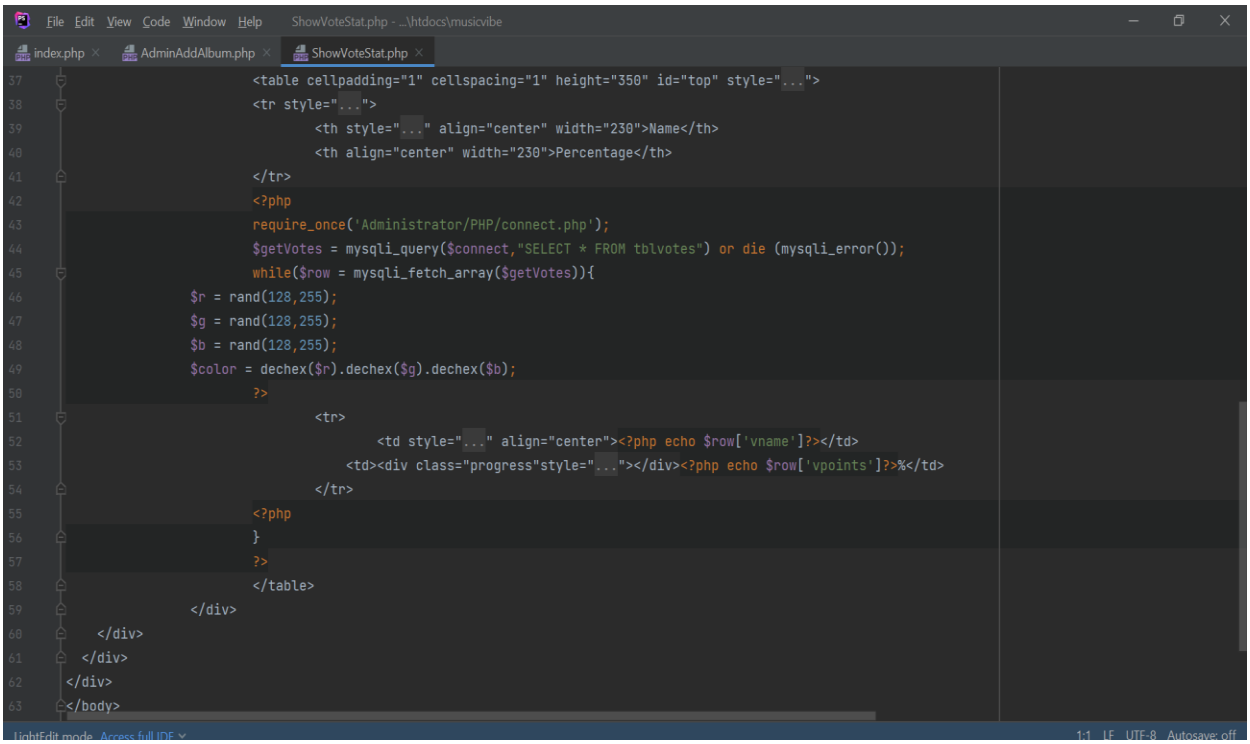


Admin add album.php



```
header("location:../../loginpage.php");
}else{
require_once('connect.php');
    if(($_FILES['txtimage']['type'] == "image/jpeg")
        ||($_FILES['txtimage']['type'] == "image/pjpeg")
        ||($_FILES['txtimage']['type'] == "image/png")
        ||($_FILES['txtimage']['type'] == "image/gif"))
    {
            //Check errors first
            if($_FILES['txtimage']['error'] > 0){
                echo 'Error occured while processing the form';
            }
            else{
                $txtimage = basename(mysqli_real_escape_string($_FILES['txtimage']['name']));
                $txtalbum = mysqli_real_escape_string($_POST['txtalbum']);
                $txtsinger = mysqli_real_escape_string($_POST['txtsinger']);
                $txtwriter = mysqli_real_escape_string($_POST['txtwriter']);
                $txtdesc = mysqli_real_escape_string($_POST['txtdesc']);
                $txtcat = mysqli_real_escape_string($_POST['txtcat']);
                if(move_uploaded_file($_FILES['txtimage']['tmp_name'],
                        "upload_images/album/".$_FILES['txtimage']['name'])){
                    $sqlialbum = mysqli_query($connect,"INSERT INTO tblalbum(albumcat,albumname,
                                        albumsinger,albumwriter,albumdesc,albumimage)
                    VALUES ('".$txtcat."','".$txtalbum."','".$txtsinger."',
                            '".$txtwriter."','".$txtdesc."','".$txtimage."')") or die
                            ('An error occured whileprocessing the form ' . mysqli_error());
                    $status = 'Success';
```

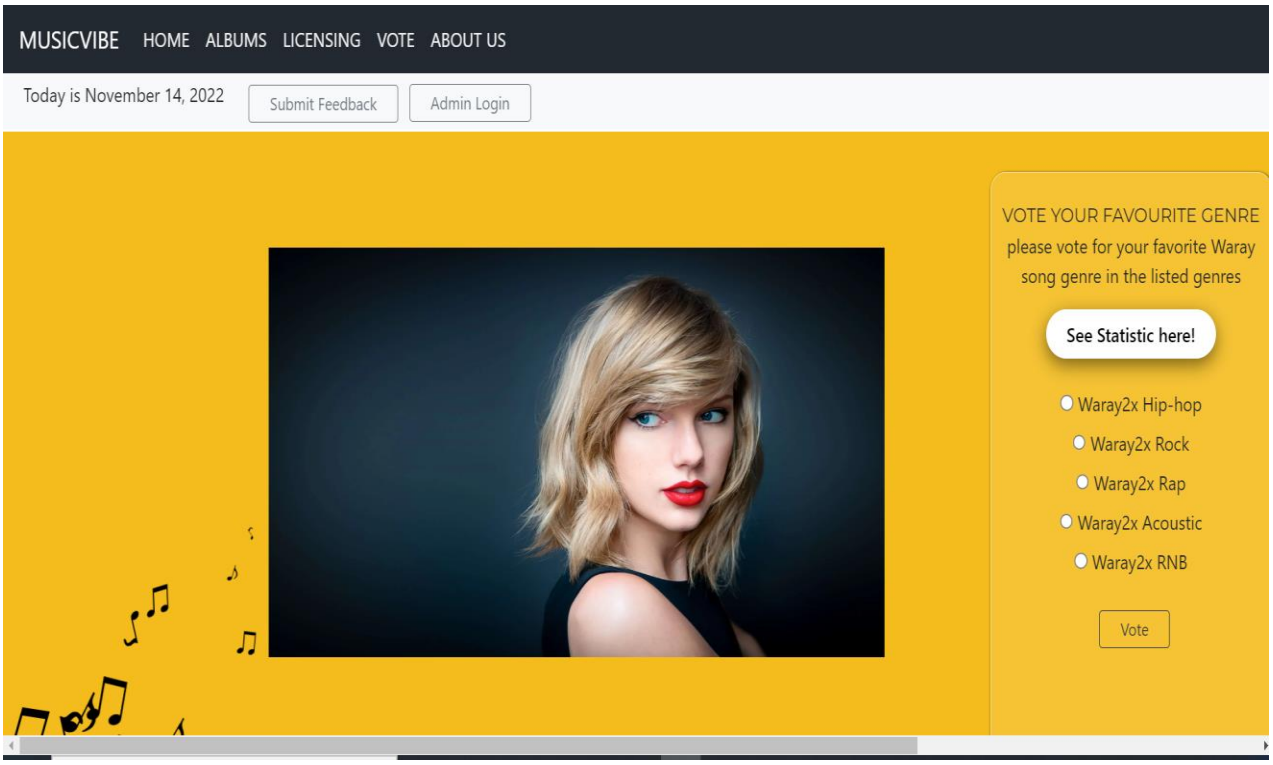
ShowVoteStat.php



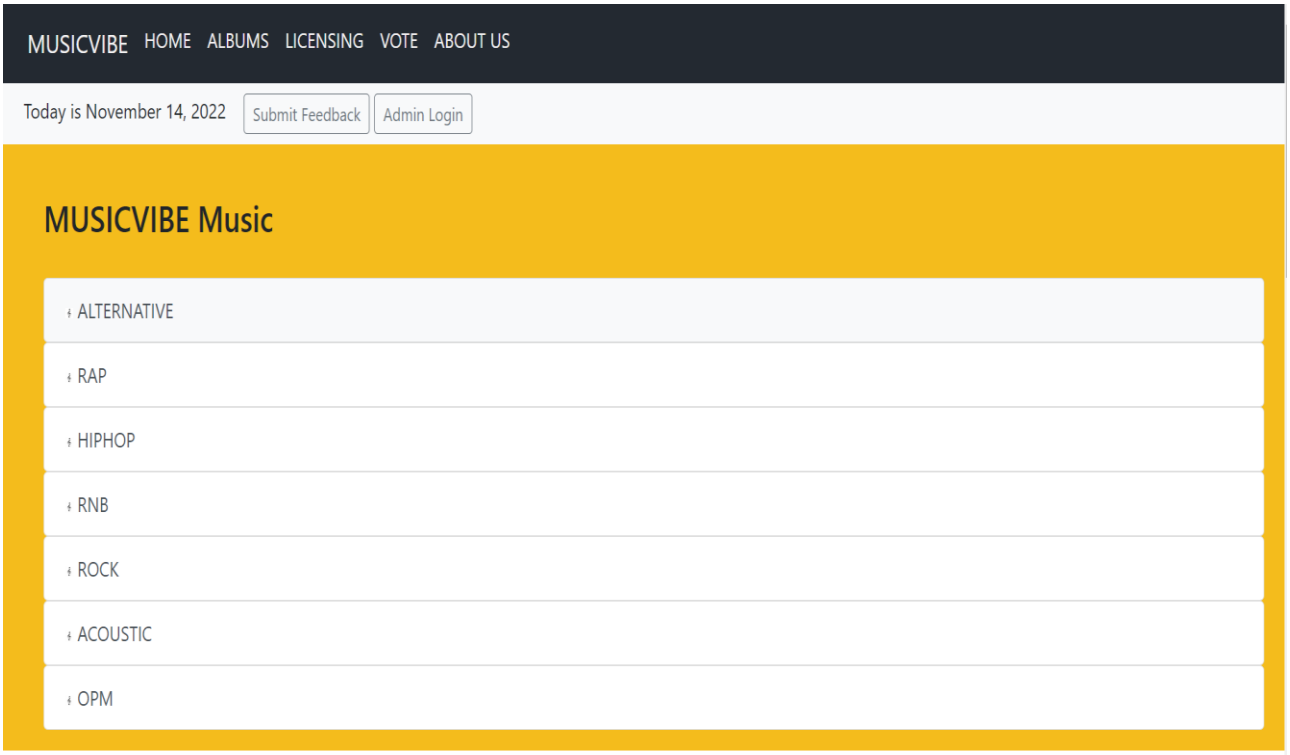
```
                    <table cellpadding="1" cellspacing="1" height="350" id="top" style="...">
                    <tr style="...">
                            <th style="..." align="center" width="230">Name</th>
                            <th align="center" width="230">Percentage</th>
                    </tr>
                    <?php
                    require_once('Administrator/PHP/connect.php');
                    $getVotes = mysqli_query($connect,"SELECT * FROM tblvotes") or die (mysqli_error());
                    while($row = mysqli_fetch_array($getVotes)){
                $r = rand(128,255);
                $g = rand(128,255);
                $b = rand(128,255);
                $color = dechex($r).dechex($g).dechex($b);
                        ?>
                                <tr>
                                        <td style="..." align="center"><?php echo $row['vname']?></td>
                                    <td><div class="progress"style="..."></div><?php echo $row['vpoints']?>%</td>
                                </tr>
                    <?php
                    }
                    ?>
                    </table>
                </div>
    </div>
  </div>
 </div>
</body>
```

9. OUTPUT SNAPS

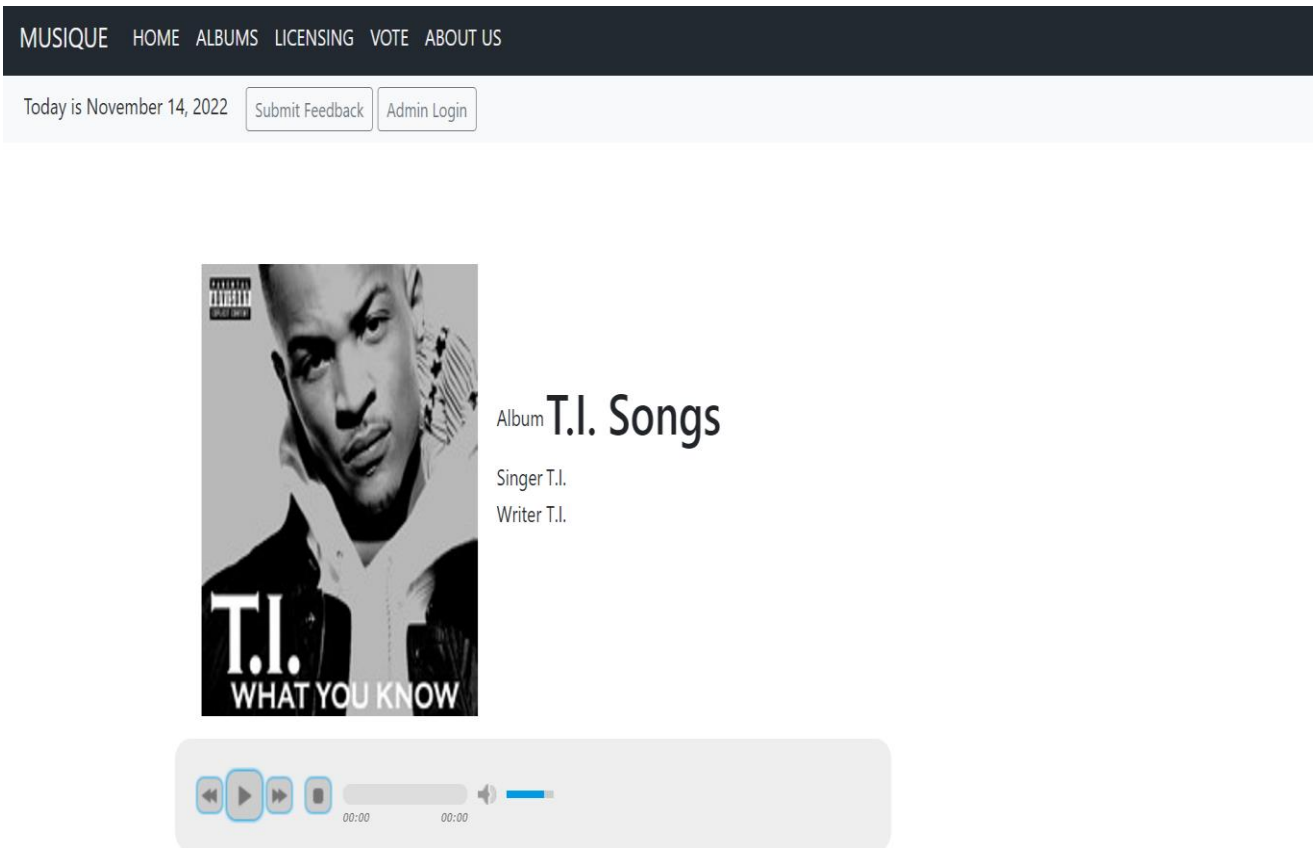
HOME PAGE



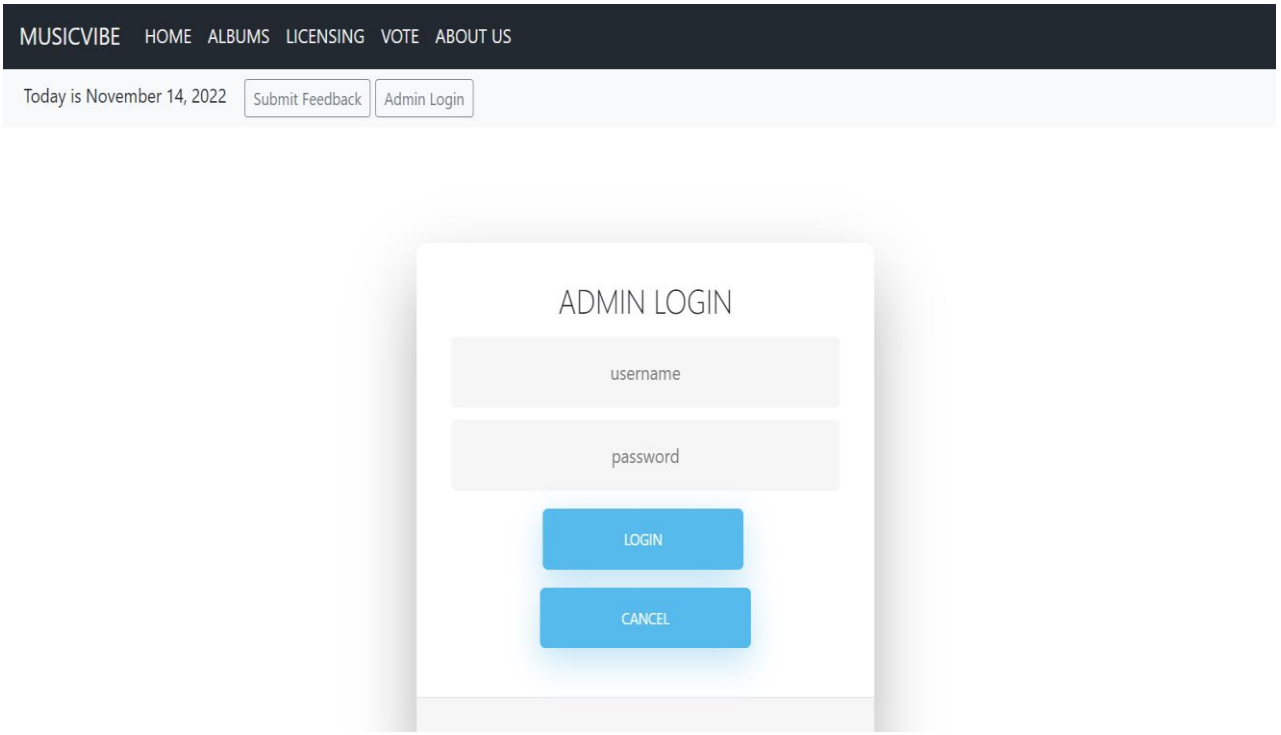
ALBUM PAGE


MUSICVIBE
HOME
ALBUMS
LICENSING
VOTE
ABOUT US
Today is November 14, 2022
Submit Feedback
Admin Login
MUSICVIBE Music
ALTERNATIVE
RAP
HIPHOP
RNB
ROCK
ACOUSTIC
OPM

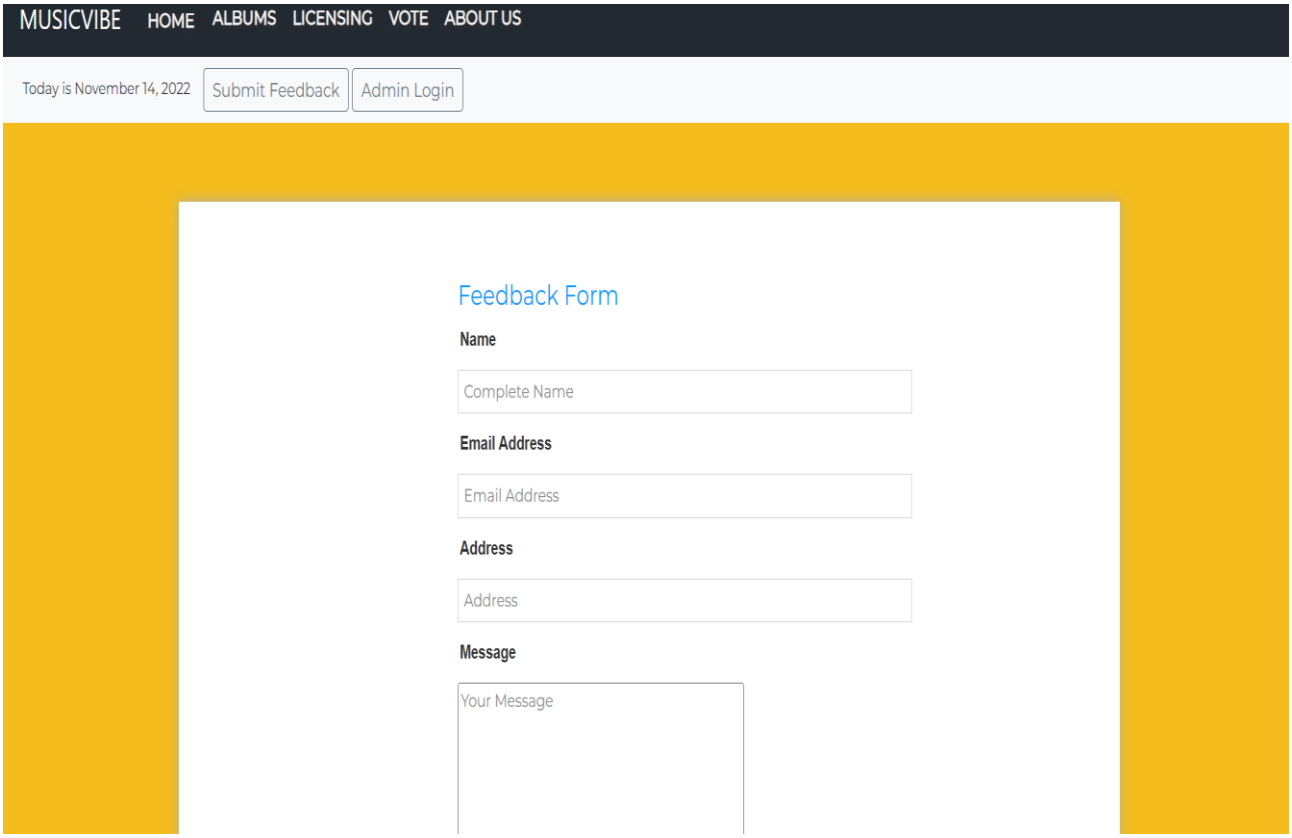
SONG PAGE


MUSIQUE HOME ALBUMS LICENSING VOTE ABOUT US
Today is November 14, 2022
Submit Feedback
Admin Login
T.I.
WHAT YOU KNOW
Album T.I. Songs
Singer T.I.
Writer T.I.
00:00
00:00

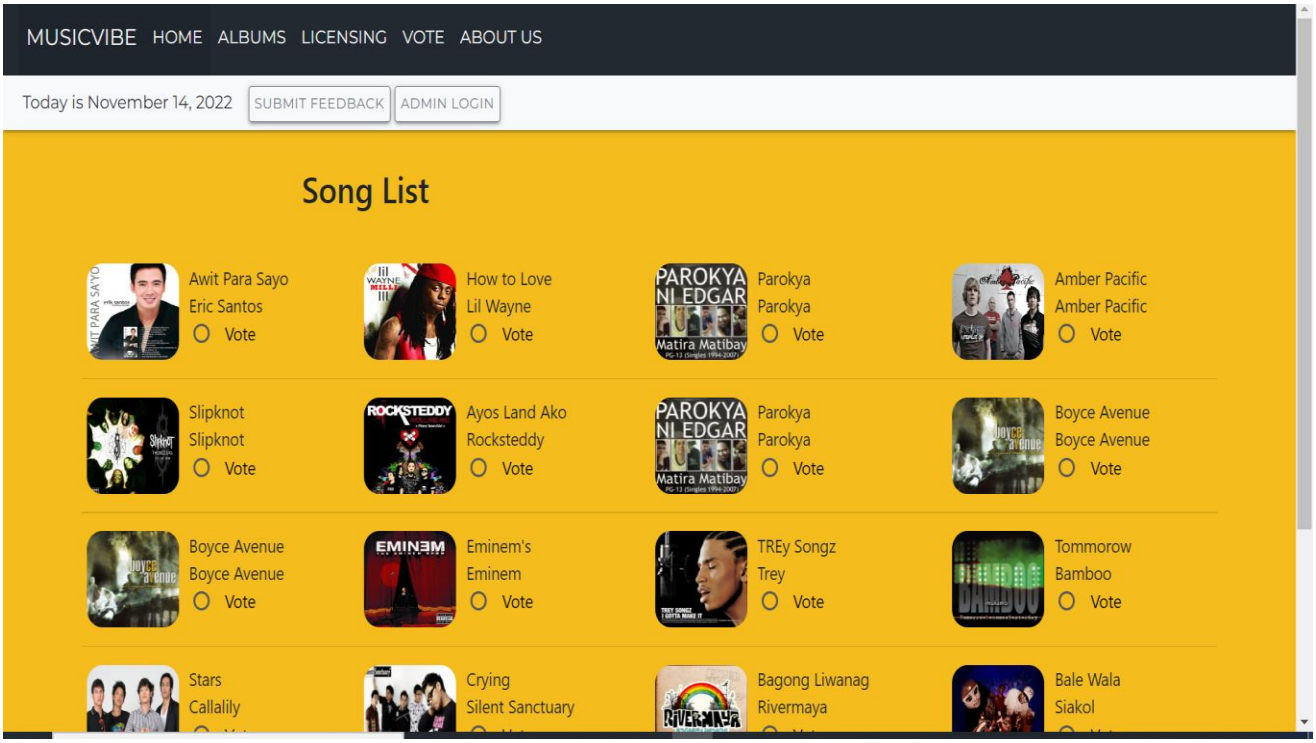
ADMIN LOGIN PAGE



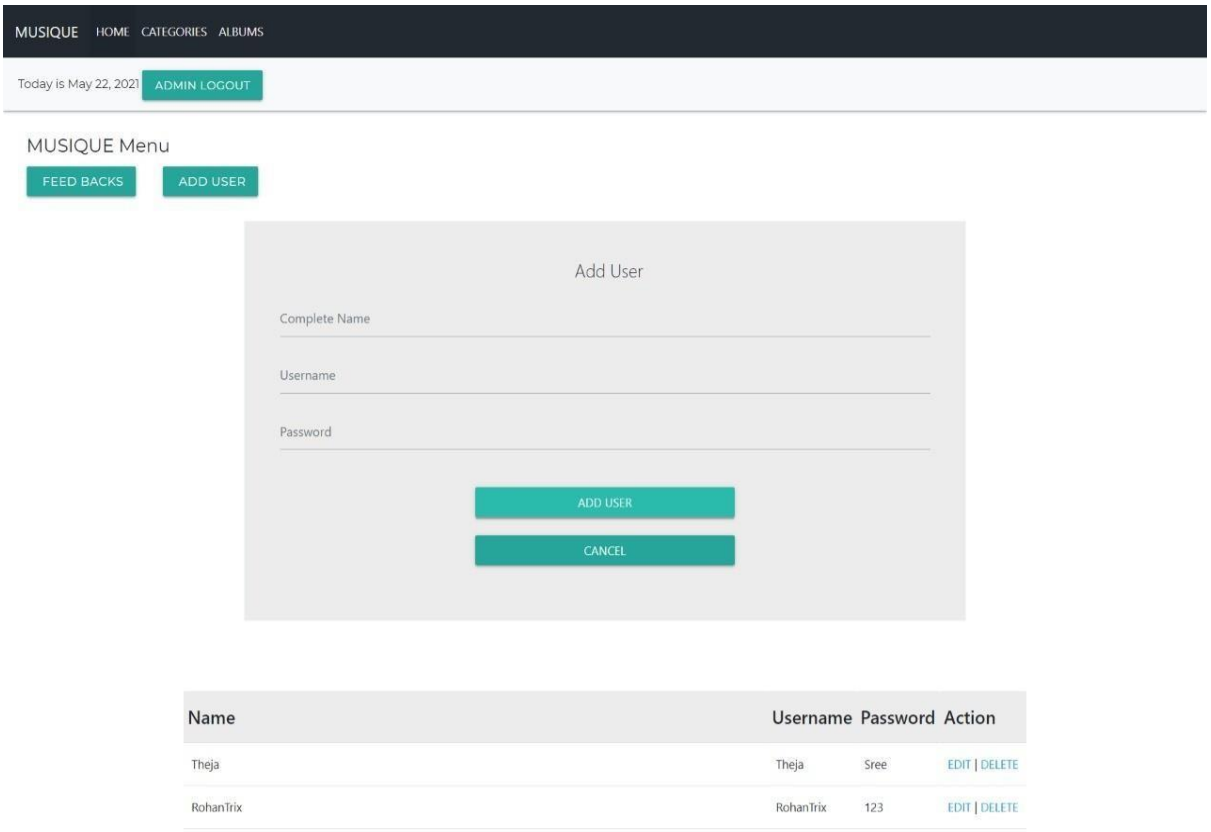
FEEDBACK FORM PAGE



VOTE SONGS PAGE



ADMIN PAGE



Name	Username	Password	Action
Theja	Theja	Sree	EDIT | DELETE
RohanTrix	RohanTrix	123	EDIT | DELETE

ALBUM RECORDS PAGE

VIEW RECORDS

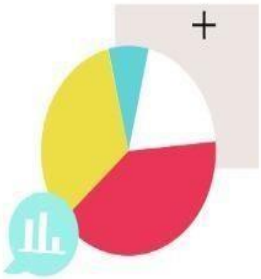
Album Record Section

Actions	ID	Album	Singer	Writer
VIEW SONGS | ADD SONG | EDIT | DELETE	96	Slipknot	Slipknot	Slipknot
VIEW SONGS | ADD SONG | EDIT | DELETE	98	Anuv Jain	Anuv Jain	Anuv Jain
VIEW SONGS | ADD SONG | EDIT | DELETE	99	Parokya	Parokya	Parokya
VIEW SONGS | ADD SONG | EDIT | DELETE	100	TREy Songz	Trey	Trey
VIEW SONGS | ADD SONG | EDIT | DELETE	101	How to Love	Lil Wayne	Lil Wayne
VIEW SONGS | ADD SONG | EDIT | DELETE	102	Eminem's	Eminem	Eminem
VIEW SONGS | ADD SONG | EDIT | DELETE	103	T.I. Songs	T.I.	T.I.
VIEW SONGS | ADD SONG | EDIT | DELETE	104	Ayos Land Ako	Rocksteddy	Rocksteddy
VIEW SONGS | ADD SONG | EDIT | DELETE	105	Boyce Avenue	Boyce Avenue	Boyce Avenue
VIEW SONGS | ADD SONG | EDIT | DELETE	106	Bale Wala	Siakol	Siakol
VIEW SONGS | ADD SONG | EDIT | DELETE	107	Tommorow	Bamboo	Bamboo
VIEW SONGS | ADD SONG | EDIT | DELETE	108	Stars	Callalily	Callalily

1 2 NEXT

VOTING RESULTS PAGE

4



Statistics

Name	Percentage
Hip-hop	15%
Rock	51%
Rap	35%
Acoustic	40%
RNB	9%

10. CONCLUSION

The music management system project aims to create an interactive, maintainable and efficient application for the new or growing musicians who would like to upload their music free of cost along with the added functionality of making playlists/album. This website will allow the users to listen to music and even add their own collection of songs or albums and contribute towards the broadening of the website. From this project, we came to a conclusion that by decentralizing the data in the database, i.e., adding of albums not only by the admin but also by the registered user, it is easy to obtain a large amount of data from different sources (registered users).

11. FUTURE ENHANCEMENTS

A new feature can be implemented in the website which will automatically spiff up your playlists with recommended songs that fit in with your music’s existing style and theme. The website can also have a feature which provides music concert tickets to users and they can buy their favorite musician concert's tickets at preferrable location and date. A simple system can be implemented using SVM, kNN machine learning algorithms for the music recommendation using face emotion recognition. It suggests music by extracting different facial emotion of a person: Happy, anger, surprise, neutral.

12. REFERENCES

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