

Pineapple Music

Spring 2019

Group 3: David Reese, Alex Fleming, Ethan Brown, Neel Patel

Assignee name	Email	Task	Duration (hours)	Dependency	Due date	Evaluation
David Reese	bunzssbm@gmail.com	Create Report, Testing, System Modeling	1 Week	Implementation	3/20	50 Could not work as long on the project due to work scheduling
Alex Fleming	Amfleming3861@gmail.com	Implementation (Back-End)	6 hours	None	3/20	100
Neel Patel	Np69450@gmail.com	Implementation (Front-End)	1 Week	None	3/20	100
Ethan Brown	Ethanbrown78@gmail.com	System Modeling, Implementation (Front-End)	6 hours	None	3/20	100

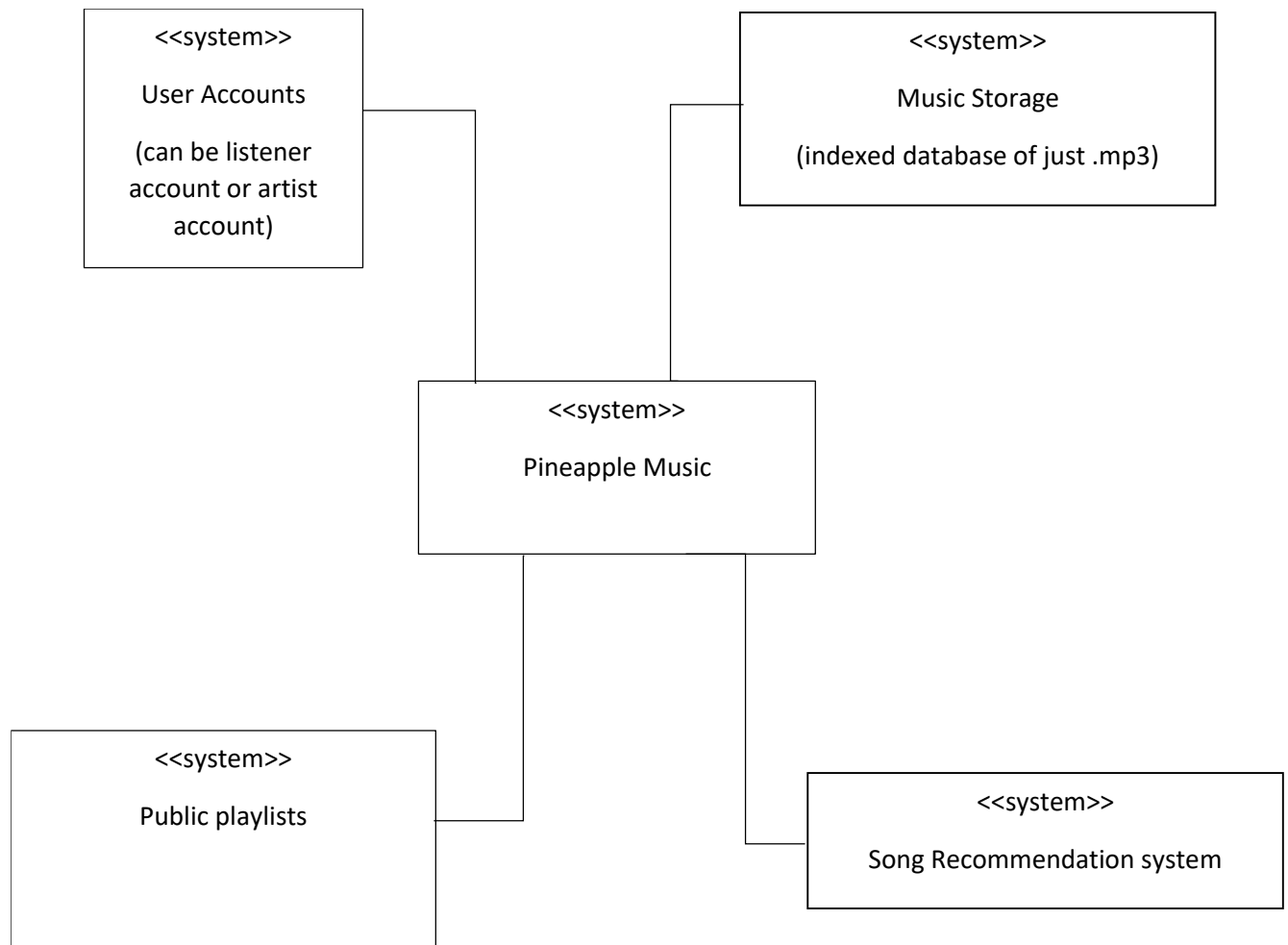
Problem Statement

1. What is your product, on a high level? A platform for music artists to upload their music and for users to listen to that music.
2. Whom is it for? It is for clients using a web browser who want to share their music and those who want to listen to music. It is for people who do not want to pay a fee to share/listen to music.
3. What problem does it solve? It provides a free option for artists to share their music on a copyright protected platform. Users can discover new local artists; established bands will be deterred from the site due to no compensation, so artists looking to be discovered can thrive in this community.
4. What alternatives are available? Soundcloud. You can upload music for free and certainly stream music for free. However, SoundCloud offers paid subscriptions to artists in return for spotlighting their music, schedule their releases, and other perks. Our product will

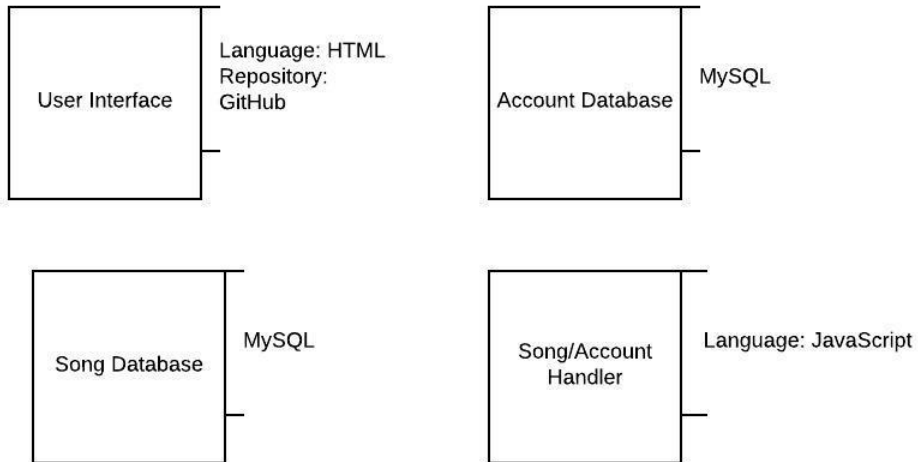
spotlight artists based on popularity, recommendation systems, and if they have an upcoming live show in the user's city.

5. Why is this project compelling and worth developing? This project is compelling and worth developing because of the large number of artists with access to computers who aren't well known and want to gain a following.
6. Describe the top-level objectives, differentiators, target customers, and scope of your product. Our objective is to create a platform for users to discover new music and keep track of artists in their area. Our service is free and recommends artists based on recommendation systems and local activity. Our target customers are music enthusiasts and small bands willing to forgo profit to gain a bigger following. Our platform focuses on just music, no videos. Users have accounts, including artists who can post about new music and upcoming shows.
7. What are the competitors and what is novel in your approach? Soundcloud and Bandcamp are our biggest competitors, though they charge their users fees for certain functionalities. Our entire service is free.
8. Make it clear that the system can be built, making good use of the available resources and technology. We have a team of 4 software engineering students. We will use java to support the back-end and a SQL database to store data.
9. What is interesting about this project from a technical point of view? We can use data mining techniques to create groups of people with similar interests and recommend songs that similar users like. With user's location data, we can also recommend bands when they have an upcoming show in that user's area.

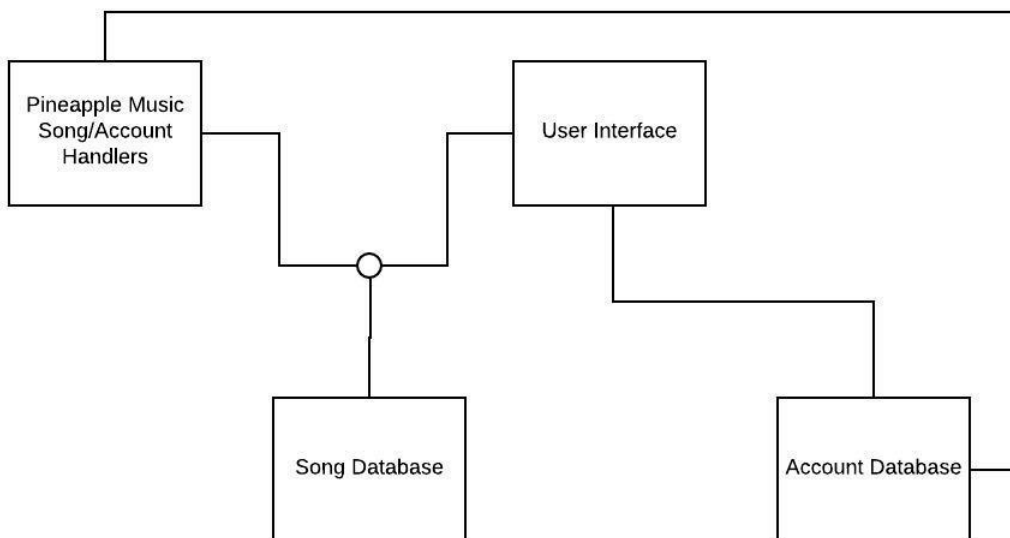
System Requirements



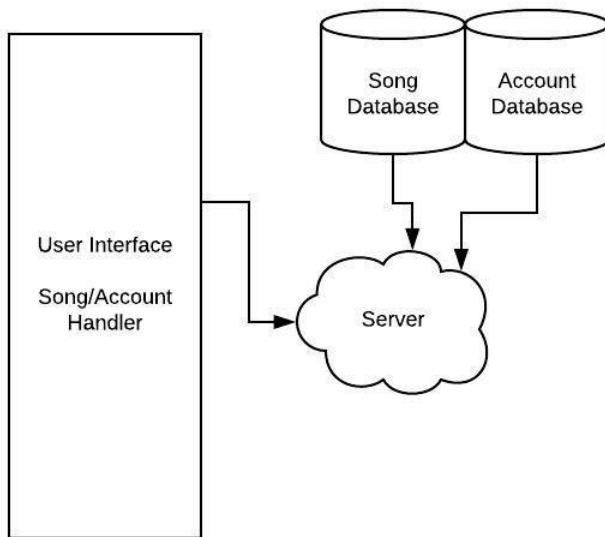
Development View



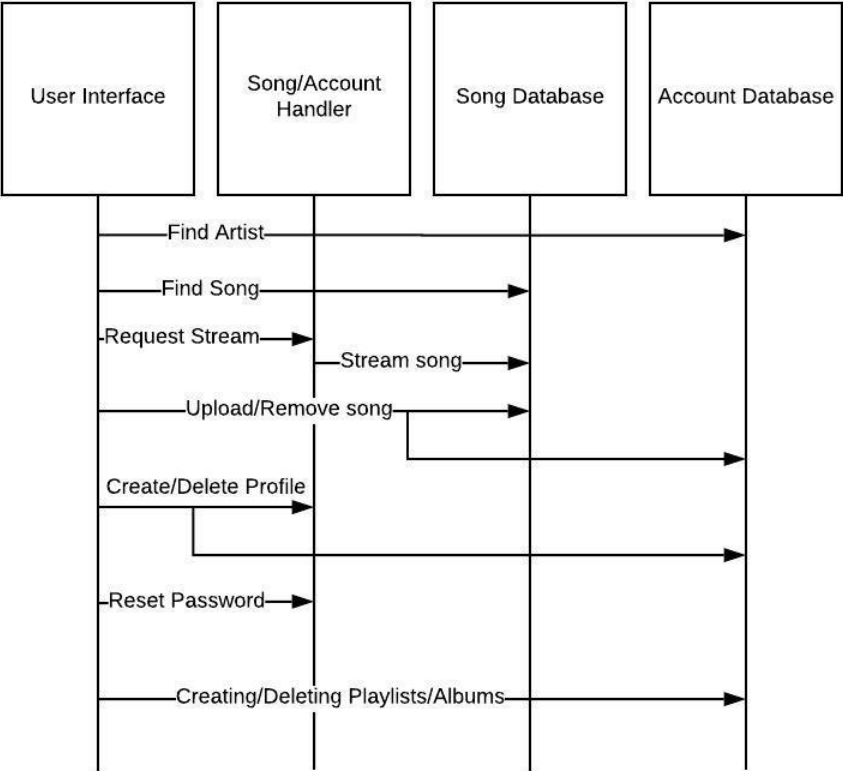
Logical View



Physical View

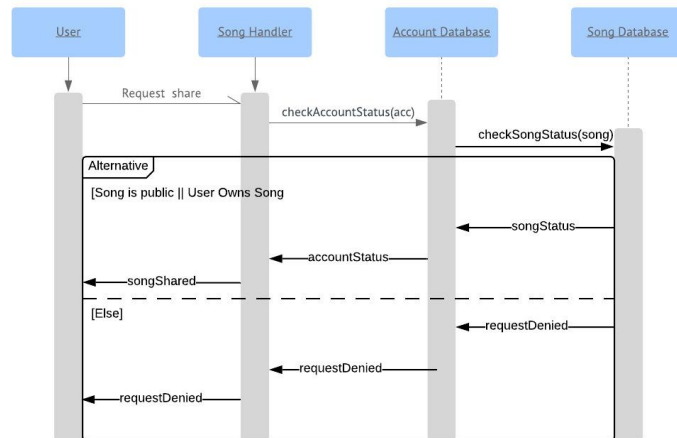


Process View



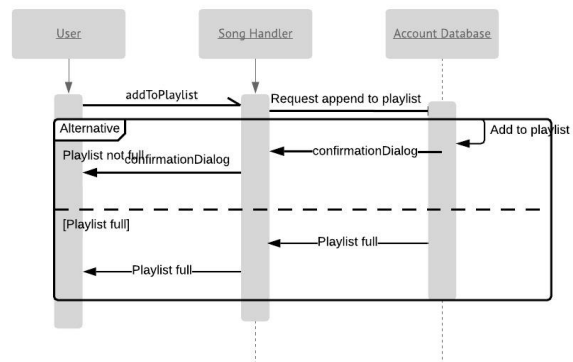
Sharing a Song Sequence Diagram

David Reese | March 20, 2019



Adding to a Playlist

David Reese | March 20, 2019



Implementation

```
<!DOCTYPE
html>

<html>

<head>
<meta charset="UTF-8">
<title>Create Account Page</title>
<style>
#div1
{
    border: 1px solid black;
    width: 100px
}
#div2
{
    border: 1px solid black;
    align="center"
}
</style>
</head>
<body bgcolor="FFFF00">
    
    
    
    
    
```

```

<div id="content">
<div id="div1">
<p style="background-color:orange;"><a
href="FirstPage.html"><b>Back</b></a></p>
</div>
<h2><p align="center">Create Account</p></h2>
<br />
<p align="center"><b>Username </b><input type="username" /></p>
<p align="center"><b>Email </b><input type="email" /></p>
<p align="center"><b>Password </b><input type="password" /></p>
<p align="center"><b>Tags </b><input type="tags" /></p>

<div id="div2">
<p align="center" style="background-color:orange;"><a
href="ArtistProfilePage.html"><b>Submit</b></a></p>
</div>
</body>

</html>
```



```
<!DOCTYPE  
html>
```

```
<html>  
  
<head>  
<meta charset="UTF-8">  
<title>Artist Profile Page</title>  
<style>  
#div1  
{  
    border: 1px solid black;  
    align="center"  
}  
#div2  
{  
    border: 1px solid blue;  
    align="center"  
}  
#div3  
{  
    border: 1px solid blue;  
    align="center"  
}  
#div4  
{  
    border: 1px solid blue;  
    align="center"  
}  
#div5  
{  
    border: 1px solid blue;  
    align="center"  
}  
#playlist{  
list-style: none;  
}  
#playlist li a{  
color: black;  
text-decoration: none;  
}  
#playlist .current-song a{  
color: blue;  
}
```

```
</style>
</head>

<body bgcolor="FFFF00">

    
    
    
    
    
<form>
<div id="content">
    <div id="div1">
<p align="center" style="background-color:orange;"><a
href="HomePage.html"><b>Back</b></a></p>
</div>
<div id="div2">
<p align="center" style="background-color:orange;"><a
href="UpdatePage.html"><b>Update Account</b></a></p>
</div>
<h2><p align="center">My Profile</p></h2>
<br />
<br />
<div id="div3">
<p align="center" style="background-color:orange;"><b>My Playlist</b></p>
```

```

</div>

<audio src="" controls id="audioPlayer">
</audio>
<ul id="playlist">
    <center><li class="current-song"><a href="PUMP-UP-NOW.mp3">PUMP UP
NOW</a></li></center>
    <center><li><a href="chillax-bruh.mp3">chills bruh</a></li></center>
</ul>
<script src="https://code.jquery.com/jquery-2.2.0.js">
<script src="audioPlayer.js"></script>
</script>
<script>
    audioPlayer();
    function audioPlayer(){
        var currentSong = 0;
        $("audioPlayer")[0].src = $("#playlist li a")[0];
        $("audioPlayer")[0].play();
        $("#playlist li a ").click(function(e){
            e.preventDefault();
            $("audioPlayer")[0].src = this;
            $("audioPlayer")[0].play();
            $("playlist li").removeClass("current-song");
            currentSong = $(this).parent().addClass("current-song");
        });
        $("#audioPlayer")[0].addEventListener("ended", function())
        currentSong++;
        if(currentSong == $("#playlist li a").length)
            currentSong = 0;
        $("playlist li").removeClass("current-song");
        $("playlist li:eq("+currentSong+")").addClass("current-song");
        $("#audioPlayer")[0].src = $("#playlist li a")[currentSong].href;
        $("#audioPlayer")[0].play();
    }
</script>
<div id="div4">
<p align="center" style="background-color:orange;"><b>My Uploads</b></p>
</div>

<audio src="" controls id="audioPlayer">
</audio>
<ul id="playlist">

```

```

        <center><li class="current-song"><a href="Alphabet-Aerobics.mp3">Alphabet
Aerobics</a></li></center>
        <center><li><a href="Thrift-Shop.mp3">Thrift Shop</a></li></center>
    </ul>
    <script src="https://code.jquery.com/jquery-2.2.0.js">
    <script src="audioPlayer.js"></script>
    </script>
    <script>
        audioPlayer();
        function audioPlayer(){
            var currentSong = 0;
            $("audioPlayer")[0].src = $("#playlist li a")[0];
            $("audioPlayer")[0].play();
            $("#playlist li a ").click(function(e){
                e.preventDefault();
                $("audioPlayer")[0].src = this;
                $("audioPlayer")[0].play();
                $("playlist li").removeClass("current-song");
                currentSong = $(this).parent().addClass("current-song");
            });
            $("#audioPlayer")[0].addEventListener("ended", function()
            currentSong++;
            if(currentSong == $("#playlist li a").length)
                currentSong = 0;
            $("#playlist li").removeClass("current-song");
            $("#playlist li:eq("+currentSong+")").addClass("current-song");
            $("#audioPlayer")[0].src = $("#playlist li a")[currentSong].href;
            $("#audioPlayer")[0].play();
        });
    }
    </script>

    <div id="div5">
    <p align="center" style="background-color:orange;"><b>Messages</b></p>
    </div>
    </form>
    </body>

    </html>

```



```
<<!DOCTYPE
html>
```

```
<html>

<head>
<meta charset="UTF-8">
<title>First Page</title>
<style>
#div1
{
    border: 1px solid black;
    align="center"
}
#div2
{
    border: 1px solid black;
    align="center"
}
</style>
</head>
<body bgcolor="FFFF00">
    
    
    
    
    
    

<h2><p align="center"> Pineapple Music Streaming</p></h2>

<br />

<p align="center"><b>Username </b><input type="username" /></p>

<p align="center"><b>Password </b><input type="password" /></p>

<div id="content">

<div id="div1">

<p align="center" style="background-color:orange;"><a

href="CreateAccount.html"><b>Forgot Password</b></a></p>

</div>

<div id="div2">

<p align="center" style="background-color:orange;"><a

href="ForgotPassword.html"><b>Create Account</b></a></p>

</div>

</body>

</html>



```
<!DOCTYPE
html>
```

```
<html>

<head>
<meta charset="UTF-8">
<title>Forgot Password</title>
<style>
#div1
{
 border: 1px solid black;
 align="center"
}
#div2
{
 border: 1px solid black;
 align="center"
}
</style>
</head>
<body bgcolor="FFFF00">

<div id="content">

<h2><p align="center">Forgot Password</p></h2>

<p align="center">Email <input type="email" /></p>

<div id="content">

<div id="div1">

<p align="center" style="background-color:orange;">Send
Email</p>

</div>

<p align="center">Code <input type="code" /></p>

<p align="center">New Password <input type="password" /></p>

<div id="div2">

<p align="center" style="background-color:orange;">Submit</p>

</div>

</body>

</html>

```
<!DOCTYPE
html>
```

```
<html>

<head>
<meta charset="UTF-8">
<title>Home Page</title>
<style>
#div1
{
    border: 1px solid black;
    align="center"
}
#div2
{
    border: 1px solid black;
    align="center"
}

</style>
</head>
<body bgcolor="FFFF00">

    
    
    
    
```

```

```

```
<div id="div1">
<p align="center" style="background-color:orange;"><a
href="ArtistProfilePage.html"><b>My Profile</b></a></p>
</div>
```

```
<div id="div2">
<p align="center" style="background-color:orange;"><a
href="FirstPage.html"><b>Sign Out</b></a></p>
</div>
```

```
<h2><p align="center">Home</p></h2>
<br />
<div class = "wrap">
<form>
```

Find a

```
<select name="Finding">
<option></option>
  <option value ="musician">Musician</option>
  <option value ="song">Song</option>
  <option value ="playlist">Playlist</option>
</select><span style = "font-size: 18pz;">with </span>
<select name="FindingWith">
  <option></option>
  <option value ="title">Title</option>
  <option value ="tags">Tags</option>
</select>
</p>
```

```
<center><table>
  <tr>
    <td>Musician</td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
```

```
        <td></td>
        <td></td>
        <td>Title</td>
    </tr>
    <tr>
        <td>Song</td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td></td>
        <td>Tags</td>
    </tr>
    <tr>
        <td>Playlist</td>
    </tr>
</table>
</center>
</form>
</div>
</body>

</html>
```



```
<!DOCTYPE  
html>
```

```
<html>
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<title>Non-Artist Profile Page</title>
```

```
<style>
```

```
#div1
```

```
{
```

```
border: 1px solid black;
```

```
align="center"
```

```
}
```

```
#div2
```

```
{
```

```
border: 1px solid black;
```

```
align="center"
```

```
}
```

```
#div3
```

```
{
```

```
border: 1px solid black;
```

```
align="center"
```

```
}
```

```
#div4
```

```
{
```

```
border: 1px solid black;
```

```
align="center"
```

```
}
```

```
#div5
```

```
{
```

```
border: 1px solid black;
```

```
align="center"
```

```
}
```

```
#playlist{
```

```
list-style: none;
```

```
}
```

```
#playlist li a{
```

```
color: black;
```

```
text-decoration: none;
```

```
}
```

```
#playlist .current-song a{
```

```
color: blue;
```

```
}
```

```
</style>
</head>
<body bgcolor="FFFF00">
    
    
    
    
    
    
<form>
<div id="content">
<div id="div1">
<p align="center" style="background-color:orange;"><a
href="FirstPage.html"><b>Back</b></a></p>
</div>
<div id="div2">
<p align="center" style="background-color:orange;"><a
href="UpdatingPage.html"><b>Update Account</b></a></p>
</div>
<h2><p align="center">My Profile</p></h2>
<br />
<br />
<div id="div3">
<p align="center" style="background-color:orange;"><b>My Playlists</b></p>
</div>
```

```

<audio src="" controls id="audioPlayer">
    Sorry, your browser doesn't support html 5!
</audio>
<ul id="playlist">
    <center><li class="current-song"><a href="PUMP-UP-NOW.mp3">PUMP UP
NOW</a></li></center>
    <center><li><a href="chillax-bruh.mp3">chillax bruh</a></li></center>
</ul>
<script src="https://code.jquery.com/jquery-2.2.0.js">
<script src="audioPlayer.js"></script>
</script>
<script>
    audioPlayer();
    function audioPlayer(){
        var currentSong = 0;
        $("audioPlayer")[0].src = $("#playlist li a")[0];
        $("audioPlayer")[0].play();
        $("#playlist li a ").click(function(e){
            e.preventDefault();
            $("audioPlayer")[0].src = this;
            $("audioPlayer")[0].play();
            $("playlist li").removeClass("current-song");
            currentSong = $(this).parent().addClass("current-song");
        });
        $("#audioPlayer")[0].addEventListener("ended", function())
        currentSong++;
        if(currentSong == $("#playlist li a").length)
            currentSong = 0;
        $("playlist li").removeClass("current-song");
        $("playlist li:eq("+currentSong+")").addClass("current-song");
        $("#audioPlayer")[0].src = $("#playlist li a")[currentSong].href;
        $("#audioPlayer")[0].play();
    }
</script>

<div id="div4">
<p align="center" style="background-color:orange;"><a
href="UploadingPage.html"><b>Upload a Song!</b></a></p>
</div>
<div id="div5">
<p align="center" style="background-color:orange;"><b>Message</b></p>

```

</div>

</form>

</body>

</html>


```
<!DOCTYPE  
html>
```

```
<html>  
  
<head>  
<meta charset="UTF-8">  
<title>Result Page</title>  
  
<meta charset="utf-8" />  
<link rel="stylesheet" type="text/css" media="screen" href="style.css" />  
  
<style>  
  
</style>  
</head>  
<body bgcolor="FFFF00">  
  
      
      
      
      
      
  
<div id="content">
```

```

<h2><p align="center">Results</p></h2>
<br />
<div class = "wrap">
<form>

<p align="center"><span style = "font-size: 18pz;">Find a </span>
<select name="Finding">
  <option></option>
  <option value = "musician">Musician</option>
  <option value = "song">Song</option>
  <option value = "playlist">Playlist</option>
</select><span style = "font-size: 18pz;">with </span>
<select name="FindingWith">
  <option></option>
  <option value = "title">Title</option>
  <option value = "tags">Tags</option>
</select>
</p>

<center><table>
  <tr>
    <td>Musician</td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td>Title</td>
  </tr>
  <tr>
    <td>Song</td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td>Tags</td>
  </tr>
  <tr>
    <td>Playlist</td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
    <td></td>
  </tr>
</table>
</center>

```


</form>

</div>

</body>

</html>


```
<!DOCTYPE
html>
```

```
<html>

<head>
<meta charset="UTF-8">
<title>Updating Page</title>
<style>
#div1
{
    border: 1px solid black;
    align="center"
}
#div2
{
    border: 1px solid black;
    align="center"
}
</style>
</head>
<body bgcolor="FFFF00">
    
    
    
    
    
    
<div id="content">
<div id="div1">
<p style="background-color:orange;"><a
href="FirstPage.html"><b>Back</b></a></p>
</div>
<h2><p align="center">My Profile</p></h2>
<p align="center"><b>Current</b></p>
<br />
<p align="center"><b>Username </b><input type="username" /></p>
<p align="center"><b>Email </b><input type="email" /></p>
<p align="center"><b>Password </b><input type="password" /></p>
<p align="center"><b>Tags </b><input type="tags" /></p>

<p align="center"><b>Update</b></p>
<p align="center"><b>Username </b><input type="username" /></p>
<p align="center"><b>Email </b><input type="email" /></p>
<p align="center"><b>Password </b><input type="password" /></p>
<p align="center"><b>Tags </b><input type="tags" /></p>
  <div id="div2">
<p align="center" style="background-color:orange;"><a
href="ArtistProfilePage.html"><b>Submit</b></a></p>
</div>
</body>

</html>

</html>
```



```
<!DOCTYPE  
html>
```

```
<html>  
  
<head>  
<meta charset="UTF-8">  
<title>Uploading Page</title>  
<style>  
#div1  
{  
    border: 1px solid black;  
    align="center"  
}  
#div2  
{  
    border: 1px solid black;  
    align="center"  
}  
#div3  
{  
    border: 1px solid black;  
    align="center"  
}  
#div4  
{  
    border: 1px solid black;  
    align="center"  
}  
</style>  
</head>  
<body bgcolor="FFFF00">  
      
      
    
```


<div id="content">

<div id="div1">

<p align="center" style="background-color:orange;">Back</p>

</div>

<h2><p align="center">Upload Song</p></h2>

<p align="center">Name <input type="name" /></p>

<p align="center">Tags <input type="tags" /></p>

<div id="div2">

<p align="center" style="background-color:orange;">Public </p>

</div>

<div id="div3">

<p align="center" style="background-color:orange;">Private </p>

</div>

<audio control src="music/music.mp3">

<p align="center">Selecting File</p>

<div id="div4">

<p align="center" style="background-color:orange;">Submit</p>

</div>

</body>

</html>


```

<!DOCTYPE html>
<html>

<head>
<meta charset="UTF-8">
<title>Home Page</title>

<body>








<p style="background-color:orange;"><a href="HomePage.html"><b>Back</b></a></p>
<p style="background-color:orange;"><a href="ArtistProfilePage.html"><b>My Profile</b></a></p>
<p style="background-color:orange;"><a href="FirstPage.html"><b>Sign Out</b></a></p>
</body>

<h2>Home</h2>
<br />
<p><b>Find a </b></p>
<p><b>with</b></p>
<input type="text" />
<p><b>Musician Title</b></p>
<p><b>Song Tags</b></p>
<p><b>Playlist</b></p>

```

```
//this is the form. it uses select tags to specify the dropdown menu.
https://www.w3schools.com/html/html_forms.asp has examples of other types of forms
// any field in a form should take the name of an attribute or entity in the
database.
<div class="lookup">
    <form action="lookup" method="POST"> //action is like a method name, POST is
a secure way of sending http requests and all of our forms should be POST as far as
i know
        Find a //this will all be in one line as long as theres no br tag
        <select name="searchObject"> //name specifies how node will refer to
this variable. in node, request.body.searchObject will hold the value the user
selected
            <option value="artist">Artist</option>
            <option value="songs">Song</option>
            <option value="playlist">Playlist/Album</option>
        </select>
        with
        <select name="attribute">
            <option value="title">Title</option>
            <option value="tags">Tags</option>
        </select>
        <input type="text" name="target" placeholder="Target" required>
        <input type="submit">
    </form>
</div>

</body>

</html>
```

```

var mysql =
require('mysql');

var express = require('express');
var session = require('express-session');
var bodyParser = require('body-parser');
var path = require('path');

var connection = mysql.createConnection({
    host      : 'localhost',
    user      : 'root',
    password  : '',
    database  : 'pineapplemusic'
});

var app = express();

app.use(session({
    secret: 'secret',
    resave: true,
    saveUninitialized: true
}));
app.use(bodyParser.urlencoded({extended : true}));
app.use(bodyParser.json());

app.get('/', function(request, response) {
    response.sendFile(path.join(__dirname + '/login.html'));
});

app.get('/homePage', function(request, response) {
    response.sendFile(path.join(__dirname + '/homePage.html'));
});

app.post('/loadsignup', function(request, response) {
    response.sendFile(path.join(__dirname + '/signup.html'));
});

app.post('/authLogin', function(request, response) {
    var username = request.body.username;
    var password = request.body.password;
    if (username && password) {
        connection.query('SELECT * FROM accounts WHERE username
= ? AND password = ?', [username, password], function(error, results,
fields) {

```

```

        if (results.length > 0) {
            request.session.loggedin = true;
            request.session.username = username;
            response.redirect('/homePage');
        } else {
            response.send('Incorrect Username and/or
Password!');
        }
        response.end();
    });
} else {
    response.send('Please enter Username and Password!');
    response.end();
}
});
// the queries in this post are nested because the output of one query
app.post('/authSign-up', function(request, response) {
    var username = request.body.username;
    var password = request.body.password;
    var verifyPassword = request.body.verifyPassword;
    var email = request.body.email;
    if (username && password && verifyPassword && email) {
        if (password==verifyPassword) {
            //these queries are nested because the output of the query
            determines the input of the next
            connection.query('SELECT * FROM accounts WHERE
username = ?', [username], function(error, results, fields) {
                if (results.length > 0) {
                    response.send('Username is taken');
                    response.end();
                } else {
                    connection.query('SELECT * FROM
accounts WHERE email = ?', [email], function(error, results, fields) {
                        if (results.length > 0) {
                            response.send('There
is already an account associated with this email');
                            response.end();
                        } else {

                            connection.query('INSERT INTO accounts (username, password,
passwordResetCode, email) VALUES (?, ?, ?, ?)', [username, password,
getRandomInt(1000, 9999), email], function(error, results, fields) {

```

```

    request.session.loggedin = true;

    request.session.username = username;

    response.redirect('/home');
    });
    }
    });
    }
    });

    } else {
        response.send('Passwords do not match');
        response.end();
    }
} else {
    response.send('Please fill out required fields');
    response.end();
}
});
//these queries still need functionality for the returned values
app.post('/lookup', function(request, response) {
    if (request.session.loggedin) {
        var searchObject = request.body.searchObject;
        var attribute = request.body.attribute;
        var value = request.body.value;
        if (searchObject=="artist"){
            if(attribute=="title"){
                connection.query('SELECT * FROM artist
WHERE stageName = ?', [value], function (error, results, fields) {
                    response.send(results);
                    response.end;
                });
            } else {
                connection.query('SELECT * FROM artist
WHERE artistTag = ?', [value], function (error, results, fields) {
                    response.send(results);
                    response.end;
                });
            }
        } else if (searchObject=="song"){
            if(attribute=="title"){

```

```

        connection.query('SELECT * FROM songs
WHERE filename = ?', [value], function (error, results, fields) {
            if(results.length>0){
                response.send("found it");
            }
            response.end();
        });
    } else {
        connection.query('SELECT * FROM songs
WHERE songTag = ?', [value], function (error, results, fields) {
            response.send(results);
            response.end();
        });
    }
} else {
    if(attribute=="title"){
        connection.query('SELECT * FROM playlist
WHERE name = ?', [value], function (error, results, fields) {
            response.send(results);
            response.end();
        });
    } else {
        connection.query('SELECT * FROM playlist
WHERE playlistTag = ?', [value], function (error, results, fields) {
            response.send(results);
            response.end();
        });
    }
}

} else {
    response.send('Please login to view this page!');
}
//response.end();
});

//default from tutorial
app.get('/home', function(request, response) {
    if (request.session.loggedin) {
        response.send('Welcome back, ' +
request.session.username + '!');
    } else {

```

```

        response.send('Please login to view this page!');
    }
    response.end();
});

app.get('/homePage', function(request, response) {
    if (request.session.loggedin) {
        response.sendFile(path.join(__dirname +
'/homePage.html'));
    } else {
        response.send('Please login to view this page!');
    }
    response.end();
});

//used for generating passwordResetCode in accounts
function getRandomInt(min, max) {
    min = Math.ceil(min);
    max = Math.floor(max);
    return Math.floor(Math.random() * (max - min)) + min; //The maximum
is exclusive and the minimum is inclusive
}

app.listen(3000);

```

Testing

```
package pineapplemusictesting;

import com.gargoylesoftware.htmlunit.WebClient;
import com.gargoylesoftware.htmlunit.html.HtmlForm;
import com.gargoylesoftware.htmlunit.html.HtmlPage;
import com.gargoylesoftware.htmlunit.html.HtmlPasswordInput;
import com.gargoylesoftware.htmlunit.html.HtmlSubmitInput;
import com.gargoylesoftware.htmlunit.html.HtmlTextInput;

public class LoginTesting {

    public static void main(String[] args) throws Exception {

        createAccount("abc", "abc", "abc", "bunzssbm@gmail.com");

    }

    static public void createAccount(String username, String password,
String verifyPassword, String email) throws Exception {
        try { WebClient webClient = new WebClient();
            //Retrieves login page
            final HtmlPage pageLogin =
webClient.getPage("file:///C:/Users/David/Downloads/PineappleMiddleware/PineappleMid
dleware/nodelogin/signup.html");
            //Prints title of page to ensure correct page is loaded
            System.out.println(pageLogin.getTitleText() + "\n");

            //Retrieves all input fields in the form and assigns them to variables
            final HtmlForm formLogin = pageLogin.getFormByName(""); //the name
is blank for form and SubmitInput
            final HtmlSubmitInput button = formLogin.getInputByName("");
            final HtmlTextInput userNameText =
formLogin.getInputByName("username");
            final HtmlTextInput emailText = formLogin.getInputByName("email");
            final HtmlPasswordInput passwordText =
formLogin.getInputByName("password");
            final HtmlPasswordInput passwordText2 =
formLogin.getInputByName("verifyPassword");

            //Assigns each parameter to its respective field variable
            userNameText.type(username);
            emailText.type(email);
            passwordText.type(password);
            passwordText2.type(verifyPassword);

            //Submits form and loads the next page
```



```

        final HtmlPage page2 = button.click();

        webClient.close();
    }finally{
    }

}

static public void searchSong(String songname) throws Exception {
    try { WebClient webClient = new WebClient();
        //Retrieves login page
        final HtmlPage pageLogin =
webClient.getPage("file:///C:/Users/David/Downloads/PineappleMiddleware/PineappleMiddleware/nodelogin/search.html");
        //Prints title of page to ensure correct page is loaded
        System.out.println(pageLogin.getTitleText() + "\n");

        //Retrieves all input fields in the form and assigns them to
variables
        final HtmlForm formLogin = pageLogin.getFormByName(""); //the
name is blank for form and SubmitInput
        final HtmlSubmitInput button = formLogin.getInputByName("");
        final HtmlTextInput searchbar =
formLogin.getInputByName("username");

        //Assigns each parameter to its respective field variable
        searchbar.type(songname);

        //Submits form and loads the next page
        final HtmlPage page2 = button.click();

        webClient.close();
    }finally{
    }

}

}

```

The screenshot shows a GitHub repository page for 'ChiefPineapple / Streaming-Service'. The top navigation bar includes links for Pull requests, Issues, Marketplace, and Explore. Below the repository name, there are tabs for Code, Issues, Pull requests, Projects, Wiki, and Insights. The 'Projects' tab is active, displaying a Kanban board for the project 'CSC-SWE-Pineapple-Music', which was updated 8 hours ago. The Kanban board has three columns: 'To Do', 'In Progress', and 'Done'. The 'To Do' column contains one task: 'add use case/requirements for music player'. The 'In Progress' column contains three tasks: 'Implement database design', 'Implement class diagram design', and 'Architecture modeling'. The 'Done' column contains five tasks: 'Refine problem statement', 'Refine requirements', 'Sequence diagram', 'Refine class diagram', and 'Scheduling Table'. Each task card indicates it was 'Added by AlexMFleming'. On the right side of the board, there is a button to '+ Add column'.