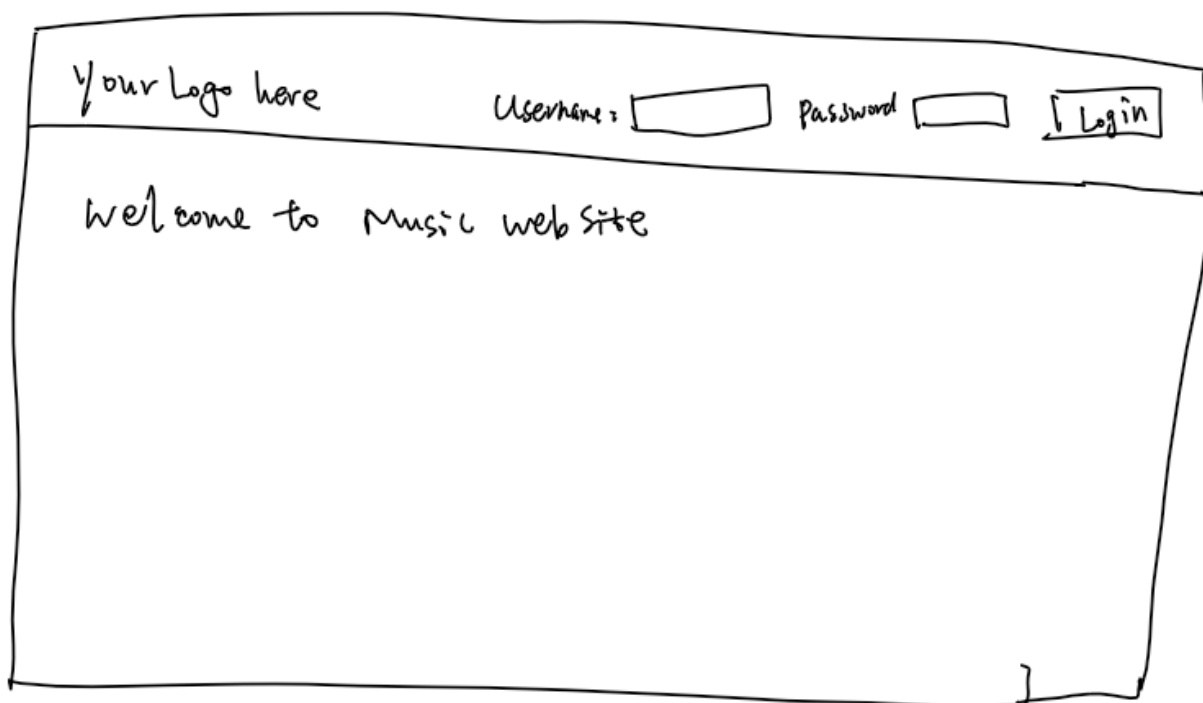


We're going to build a music website using what we learnt in this course. It's a single person project.

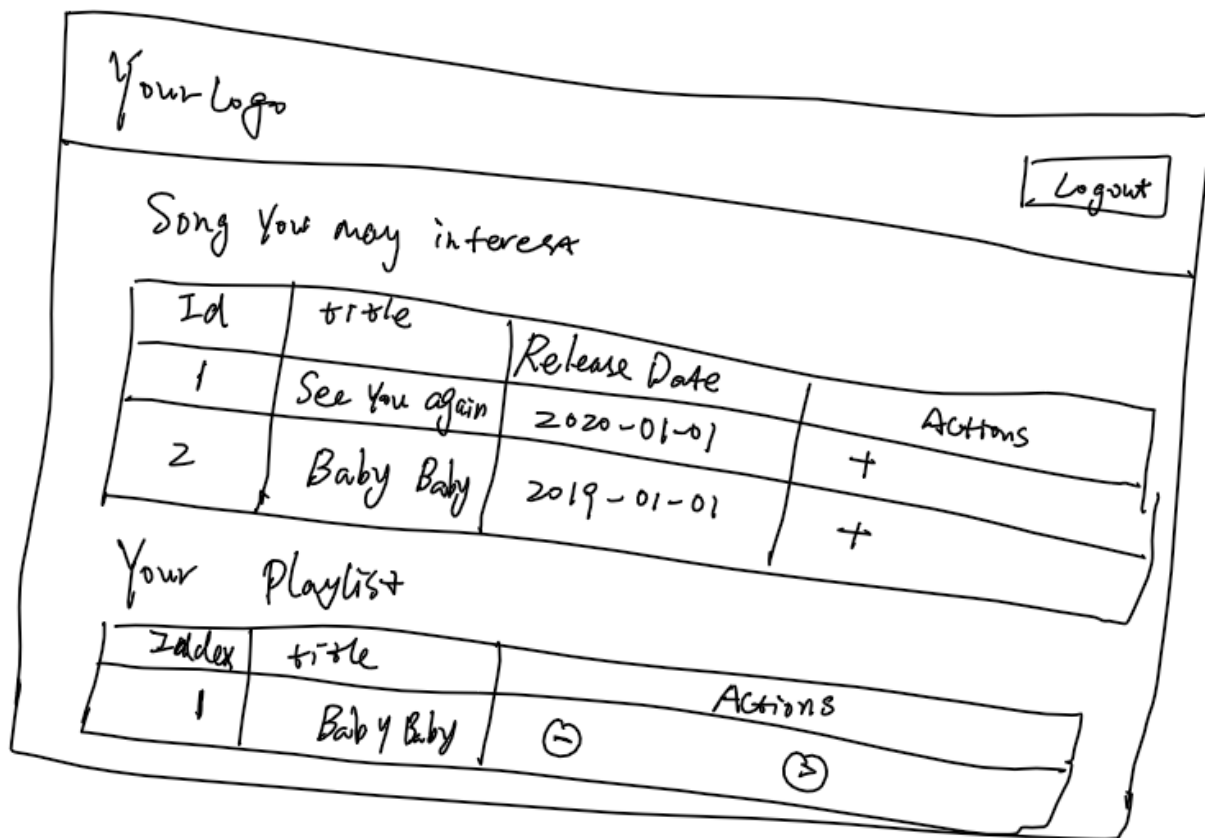
NOTE: if you share your code with other students and I found out later, you'll get 0 for your project. If you copy code from other students, during presentation, if you couldn't answer my questions, you'll lose points for the question you couldn't answer.

Here's the project requirements:

1. The server side is already built, you just need to complete the front side with design like the screenshots.
2. There's a login page, user can put username/password to login. All other requested need to be authenticated. If username and password doesn't match, display "Error" message to user.
  - a. Here is the idea on how you implement the login feature:
    - i. When user clicks login button with username and password, make a request to server side. If the username and password isn't correct, server returns error message. If correct, server returns you a JSON Token.
    - ii. In the client side, get the generated string, store it in session storage.
    - iii. For all the remaining requests, always pass the token located in session storage to server side.



- Once user logs in, they can see a table of song list and their playlist if they created before.



- User can search songs by song title.
- User can add new songs to their playlist, can also remove songs from their playlist.
- Different user should see different playlist.
- There's a logout button. Once user logs out, see the login page again.
  - Here is the idea of implementing logout
    - Remove the string from session storage.
- (2 points) Extra Features
  - Can play & pause a song
  - Can click prev/next button to switch song
  - Can change play mode (repeat 1 song, repeat playlist one by one, shuffle playlist)

## REST Application APIs:

## 1. Login

HTTP Request:

POST <http://localhost:3000/api/auth/login>

POST Body:

```
{
  "username": "pop",
  "password": "password"
```

}

HTTP Response:

Correct username&password:

```
{
  "id": "d932c6d6-c729-49db-992a-2cfc83f9e098",
  "username": "pop",
  "playType": "ORDER",
  "accessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6ImQ5MzJjNmQ2LWM3MjktNDk1Yi05OTJhLTJjZmM4M2Y5ZTA5OCIsIm1hdCI6MTY1MjMyNDMyMiwiZXhwIjojNjUyMzI0TiYfQ.-HjM29WN05iXy1oVoPZSkt52-Pw9H0KYjXvkIw_fJE"
}
```

Incorrect username&password:

```
{
  "status": "error",
  "message": "Invalid username or password!"
}
```

Available username & password:

pop/password

rock/password

hiphop/password

mix/password

2. Search Songs by song title – contains typed letters. If no search query string provided, it'll list all available songs.

HTTP Request:

GET <http://localhost:3000/api/music?search=Bird>

Headers:

{

```

      'Authorization': `Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6ImQ5MzJjNmQ2LWM3MjktNDlkYi05OTJhLTJjZmM4M2Y5ZTA5O
CIIsImIhdCI6MTY1MjMyNDg3OSwiZXhwIjoxNjUyMzI4NDc5fQ.Nz2SpbEnx70Deu43ER3xDqhNTh6q4zFStnxaPQ3pJKM
`
}

```

HTTP Response: If no matching data, return empty array []

```

[
  {
    "id": "b7120e4d-69b1-454d-8fc7-dc403c86f669",
    "urlPath": "music/mocking_bird.mp3",
    "title": "Mocking Bird",
    "releaseDate": "1989-1-2"
  }
]

```

If no Authorization Header:

```

{
  "status": "error",
  "message": "Invalid or Expired token"
}

```

### 3. Playlist

#### a. Get playlist

##### i. HTTP Request

GET <http://localhost:3000/api/playlist>

Header:

```
{
```

```

      'Authorization': `Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6ImQ5MzJjNmQ2LWM3MjktNDlkYi05OTJhLTJjZmM4M2Y5ZTA5O
CIIsImIhdCI6MTY1MjMyNDg3OSwiZXhwIjoxNjUyMzI4NDc5fQ.Nz2SpbEnx70Deu43ER3xDqhNTh6q4zFStnxaPQ3pJKM
`
}

```

##### ii. HTTP Response

```

[
  {
    "id": "7446906f-7029-4a81-b97c-2f329545e758",
    "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
    "songId": "298e11ff-9914-46ad-b2d4-b219fc433b3e",
    "orderId": 1,

```

```

        "title": "Gangnum Style",
        "urlPath": "music/gagnum_style.mp3"
    },
    {
        "id": "2ded6b37-d1ac-4185-bb11-be87813e8b70",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "053edf01-29d8-4efb-97ec-680eb449ba2a",
        "orderId": 2,
        "title": "Mission Impossible",
        "urlPath": "music/mission_impossible.mp3"
    },
    {
        "id": "1e8b6bb8-6895-44c0-91ce-499862850781",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "8d19f0f8-9579-4bf5-9009-3bf66841e363",
        "orderId": 3,
        "title": "Single Lady",
        "urlPath": "music/single_lady.mp3"
    }
]

```

b. Add to playlist

HTTP Request:

POST <http://localhost:3000/api/playlist/add>

Header:

```

{
    'Authorization': `Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6ImQ5MzY5ZTA5OClzIm1hdCI6MTY1MjMyNDg3OSwiZXhwIjoxNjUyMzI4NDc5fQ.Nz2SpbEnx70Deu43ER3xDqhNTh6q4zFStnxaPQ3pJKM
`
}

```

POST body:

```

{
    "songId": "aa6d1f58-5dcd-4b71-8c6e-88b96882f338"
}

```

HTTP Response: the playlist

```

[
    {
        "id": "7446906f-7029-4a81-b97c-2f329545e758",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "298e11ff-9914-46ad-b2d4-b219fc433b3e",
    }
]

```

```

        "orderId": 1,
        "title": "Gangnum Style",
        "urlPath": "music/gagnum_style.mp3"
    },
    {
        "id": "2ded6b37-d1ac-4185-bb11-be87813e8b70",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "053edf01-29d8-4efb-97ec-680eb449ba2a",
        "orderId": 2,
        "title": "Mission Impossible",
        "urlPath": "music/mission_impossible.mp3"
    },
    {
        "id": "1e8b6bb8-6895-44c0-91ce-499862850781",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "8d19f0f8-9579-4bf5-9009-3bf66841e363",
        "orderId": 3,
        "title": "Single Lady",
        "urlPath": "music/single_lady.mp3"
    },
    {
        "id": "71b8b256-9ff6-46ac-867b-dc5db22fba3d",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "b7120e4d-69b1-454d-8fc7-dc403c86f669",
        "orderId": 4,
        "title": "Mocking Bird",
        "urlPath": "music/mocking_bird.mp3"
    },
    {
        "id": "df44b1be-2441-451a-a57f-7cc590b0c71c",
        "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",
        "songId": "aa6d1f58-5dcd-4b71-8c6e-88b96882f338",
        "orderId": 5,
        "title": "Smooth Criminal",
        "urlPath": "music/smooth_criminal.mp3"
    }
}
]

```

c. Remove from playlist

HTTP Request:

POST <http://localhost:3000/api/playlist/remove>

Header:

```

{
    'Authorization': `Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6ImQ5MzY5e098Q2LWM3MjktNDlkYi0

```

```
50TJhLTJjZmM4M2Y5ZTA50CIsm1hdCI6MTY1MjMyNDg3OSwiZXhwIjoxNjUyMzI4NDc5fQ.  
Nz2SpbEnx70Deu43ER3xDqhNTh6q4zFStnxaPQ3pJKM
```

```
`}
```

POST body:

HTTP Response: the playlist

```
[  
  {  
    "id": "7446906f-7029-4a81-b97c-2f329545e758",  
    "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",  
    "songId": "298e11ff-9914-46ad-b2d4-b219fc433b3e",  
    "orderId": 1,  
    "title": "Gangnum Style",  
    "urlPath": "music/gagnum_style.mp3"  
  },  
  {  
    "id": "2ded6b37-d1ac-4185-bb11-be87813e8b70",  
    "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",  
    "songId": "053edf01-29d8-4efb-97ec-680eb449ba2a",  
    "orderId": 2,  
    "title": "Mission Impossible",  
    "urlPath": "music/mission_impossible.mp3"  
  },  
  {  
    "id": "1e8b6bb8-6895-44c0-91ce-499862850781",  
    "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",  
    "songId": "8d19f0f8-9579-4bf5-9009-3bf66841e363",  
    "orderId": 3,  
    "title": "Single Lady",  
    "urlPath": "music/single_lady.mp3"  
  },  
  {  
    "id": "71b8b256-9ff6-46ac-867b-dc5db22fba3d",  
    "userId": "d932c6d6-c729-49db-992a-2cfc83f9e098",  
    "songId": "b7120e4d-69b1-454d-8fc7-dc403c86f669",  
    "orderId": 4,  
    "title": "Mocking Bird",  
    "urlPath": "music/mocking_bird.mp3"  
  }  
]
```