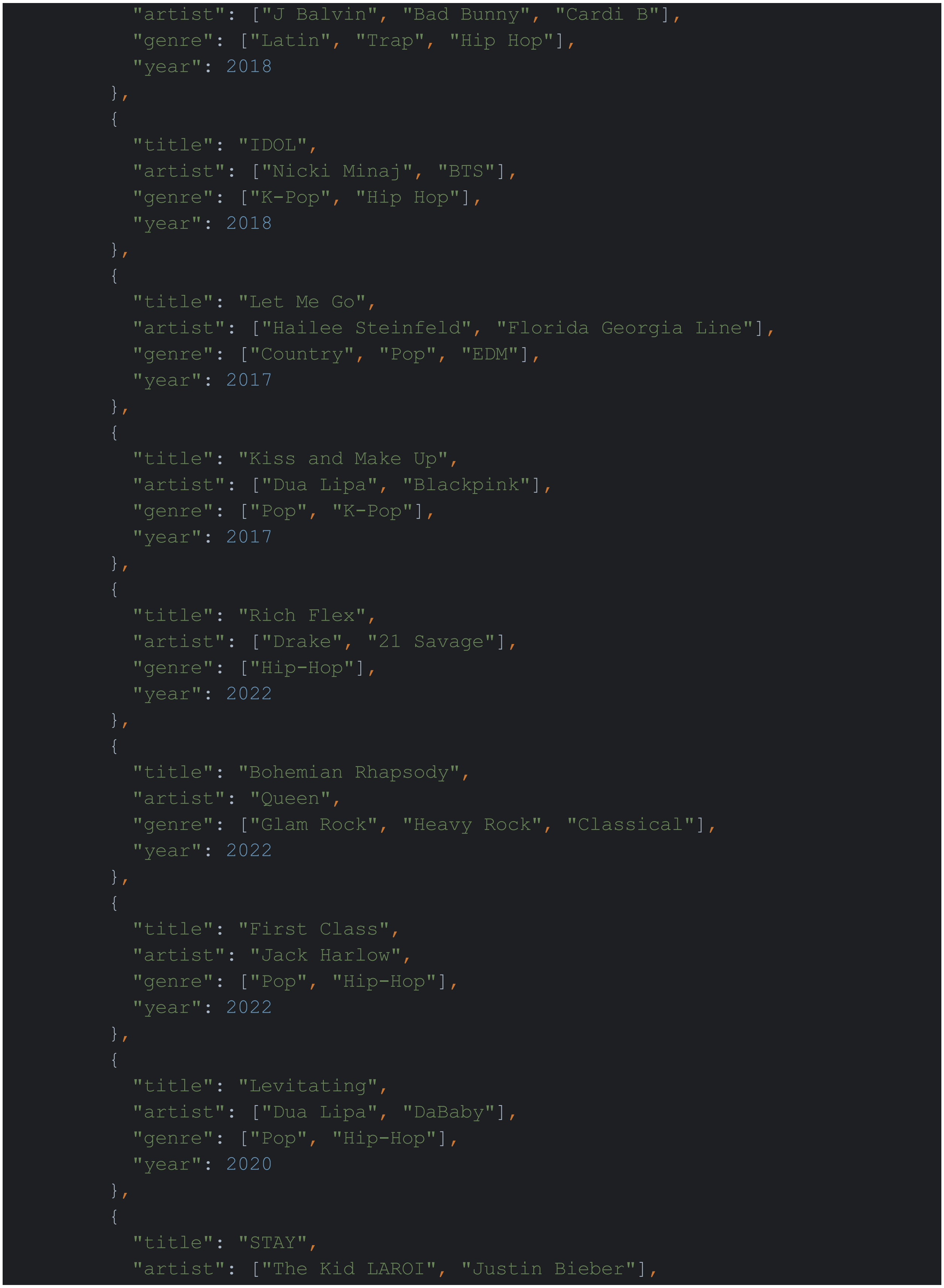
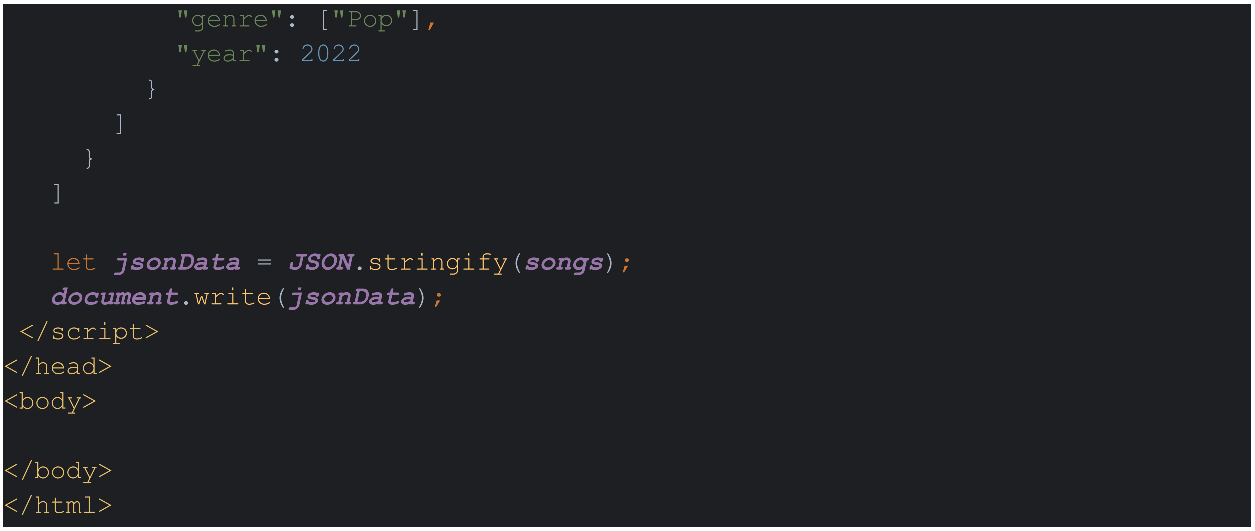
json1.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <title>Title</title>
 <script>
   let songs = [
     {
       "songs": [
         {
           "title": "Bad Blood",
           "artists": ["Taylor Swift", "Kendrick Lamar"],
           "genre": ["Pop", "Hip Hop"],
           "year": 2015
         },
         {
           "title": "Despacito",
           "artists": ["Justin Bieber", "Daddy Yankee", "Luis Fonsi"],
           "genre": ["Pop", "Latin Pop", "Reggaeton"],
           "year": 2017
         },
         {
           "title": "Take What You Want",
           "artists": ["Post Malone", "Ozzy Osbourne", "Travis Scott"],
           "genre": ["Hip Hop", "Trap", "Rock"],
           "year": 2019
         },
         {
           "title": "Summer Bummer",
           "artist": ["Lana Del Ray", "A$AP Rocky", "Playboi Carti"],
           "genre": ["Indie Pop", "Trap", "Hip hop"],
           "year": 2017
         },
         {
           "title": "Ice Cream",
           "artist": ["Selena Gomez", "Blackpink"],
           "genre": ["Electropop", "K-Pop"],
           "year": 2020
         },
         {
           "title": "I Think I'm OKAY",
           "artist": ["Machine Gun Kelly", "YUNGBLUD", "Travis Barker"],
           "genre": ["Pop", "Hip Hop", "Pop Punk"],
           "year": 2019
         },
         {
           "title": "I Like It",
```



```json
      "artist": ["J Balvin", "Bad Bunny", "Cardi B"],
      "genre": ["Latin", "Trap", "Hip Hop"],
      "year": 2018
    },
    {
      "title": "IDOL",
      "artist": ["Nicki Minaj", "BTS"],
      "genre": ["K-Pop", "Hip Hop"],
      "year": 2018
    },
    {
      "title": "Let Me Go",
      "artist": ["Hailee Steinfeld", "Florida Georgia Line"],
      "genre": ["Country", "Pop", "EDM"],
      "year": 2017
    },
    {
      "title": "Kiss and Make Up",
      "artist": ["Dua Lipa", "Blackpink"],
      "genre": ["Pop", "K-Pop"],
      "year": 2017
    },
    {
      "title": "Rich Flex",
      "artist": ["Drake", "21 Savage"],
      "genre": ["Hip-Hop"],
      "year": 2022
    },
    {
      "title": "Bohemian Rhapsody",
      "artist": "Queen",
      "genre": ["Glam Rock", "Heavy Rock", "Classical"],
      "year": 2022
    },
    {
      "title": "First Class",
      "artist": "Jack Harlow",
      "genre": ["Pop", "Hip-Hop"],
      "year": 2022
    },
    {
      "title": "Levitating",
      "artist": ["Dua Lipa", "DaBaby"],
      "genre": ["Pop", "Hip-Hop"],
      "year": 2020
    },
    {
      "title": "STAY",
      "artist": ["The Kid LAROI", "Justin Bieber"],
```



```
           "genre": ["Pop"],
           "year": 2022
         }
       ]
     }
   ]

   let jsonData = JSON.stringify(songs);
   document.write(jsonData);
 </script>
</head>
<body>

</body>
</html>
```

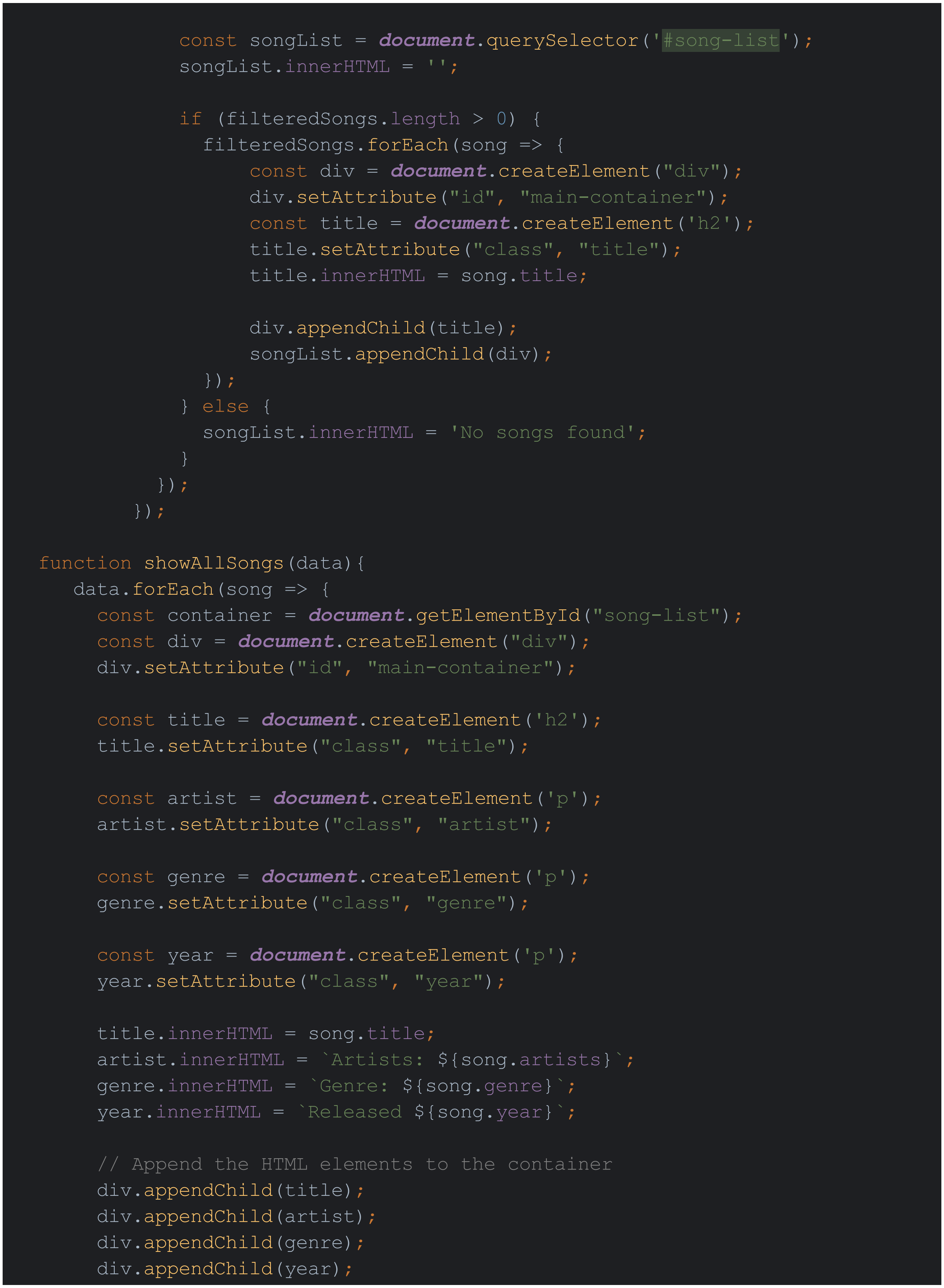
json2.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <title>Title</title>
   <link rel="stylesheet" href="style.css">
</head>
<body>
   <p id="raw-data"></p>
 <h1>Song List</h1>
 <label for="genre">Select a genre:</label>
 <select id="genre">
     <option value="">All Genres</option>
 </select>
 <button id="filter-btn">Filter</button>
 <div id="song-list"></div>
 <script>
     fetch('data.json')
           .then(response => response.json()) // Parse the JSON data
           .then(data => {
               let raw_string = document.getElementById("raw-data");
               let stringify = JSON.stringify(data);
               raw_string.innerText = stringify;


               showAllSongs(data);
             const genres = getGenres(data); // get all genres from the song list
             const genreSelect = document.querySelector('#genre');

             //genre dropdown
             genres.forEach(genre => {
               const option = document.createElement('option');
               option.value = genre;
               option.textContent = genre;
               genreSelect.appendChild(option);
             });

             //control what the filter button does
             const filterBtn = document.querySelector('#filter-btn');
             filterBtn.addEventListener('click', function() {
               const selectedGenre = genreSelect.value;
               const filteredSongs = data.filter(song => {
                 return selectedGenre ? song.genre.includes(selectedGenre) : true;
               });
               console.log(filteredSongs);
```



```
            const songList = document.querySelector('#song-list');
            songList.innerHTML = '';

            if (filteredSongs.length > 0) {
              filteredSongs.forEach(song => {
                  const div = document.createElement("div");
                  div.setAttribute("id", "main-container");
                  const title = document.createElement('h2');
                  title.setAttribute("class", "title");
                  title.innerHTML = song.title;

                  div.appendChild(title);
                  songList.appendChild(div);
              });
            } else {
              songList.innerHTML = 'No songs found';
            }
          });
        });

function showAllSongs(data){
   data.forEach(song => {
     const container = document.getElementById("song-list");
     const div = document.createElement("div");
     div.setAttribute("id", "main-container");

     const title = document.createElement('h2');
     title.setAttribute("class", "title");

     const artist = document.createElement('p');
     artist.setAttribute("class", "artist");

     const genre = document.createElement('p');
     genre.setAttribute("class", "genre");

     const year = document.createElement('p');
     year.setAttribute("class", "year");

     title.innerHTML = song.title;
     artist.innerHTML = `Artists: ${song.artists}`;
     genre.innerHTML = `Genre: ${song.genre}`;
     year.innerHTML = `Released ${song.year}`;

     // Append the HTML elements to the container
     div.appendChild(title);
     div.appendChild(artist);
     div.appendChild(genre);
     div.appendChild(year);
```

```
        container.append(div);
      })
   }

   function getGenres(songList) {
     const genres = new Set();
     songList.forEach(song => {
       song.genre.forEach(genre => genres.add(genre));
     });
     return Array.from(genres);
   }
 </script>
</body>
</html>
```

Links

Part 1: https://kerwinteh.github.io/cs20/Assignment7/json1.html
Part 2,3,4: https://kerwinteh.github.io/cs20/Assignment7/json2.html

Questions

I prefer JSON because it is more readable to the human eye. It is also easier to read using javascript and is slightly more structured than XML.