URL:

https://mirarj.github.io/CS20/Assignment7_JSON/json1.html

https://mirarj.github.io/CS20/Assignment7_JSON/json2.html

Code:

json1.html

```html
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Read JSON Demo</title>
</head>

<body>
    <script language="javascript">
    songs = {"songs": [
    {
        "title" : "Umbrella",
        "artists" : ["Rihanna", "Jay-Z"],
        "genres" : ["Pop", "Hip-Hop"],
        "year" : 2007
    },
    {
        "title" : "Attention",
        "artists" : ["Charlie Puth"],
        "genres" : ["Pop"],
        "year" : 2017
    },
    {
        "title" : "One Call Away",
        "artists" : ["Charlie Puth"],
        "genres" : ["Pop"],
        "year" : 2015
    },
    {
        "title" : "Uptown Funk",
        "artists" : ["Bruno Mars", "Mark Ronson"],
        "genres" : ["Pop"],
        "year" : 2014
```

```
    },
    {
        "title" : "Symphony",
        "artists" : ["Clean Bandit", "Zara Larsson"],
        "genres" : ["Pop"],
        "year" : 2017
    },
    {
        "title" : "Hey Soul Sister",
        "artists" : ["Train"],
        "genres" : ["Pop"],
        "year" : 2009
    },
    {
        "title" : "Bohemian Rhapsody",
        "artists" : ["Queen"],
        "genres" : ["Rock"],
        "year" : 1975
    },
    {
        "title" : "Hips Don't Lie",
        "artists" : ["Shakira", "Wyclef Jean"],
        "genres" : ["Pop", "Latin"],
        "year" : 2006
    },
    {
        "title" : "Defying Gravity",
        "artists" : ["Kristin Chenoweth", "Idina Menzel"],
        "genres" : ["Broadway"],
        "year" : 2003
    },
    {
        "title" : "Chammak Challo",
        "artists" : ["Akon", "Hamsika Ayer"],
        "genres" : ["Bollywood"],
        "year" : 2011
    },
    {
```

```
        "title" : "HIP",
        "artists" : ["MAMAMOO"],
        "genres" : ["K-pop"],
        "year" : 2019
    },
    {

        "title" : "(Crank That) Soulja Boy",
        "artists" : ["Soulja Boy"],
        "genres" : ["Hip-Hop"],
        "year" : 2007
    },
    {

        "title" : "Satisfied",
        "artists" : ["Renée Elise Goldsberry"],
        "genres" : ["Broadway"],
        "year" : 2007
    },
    {

        "title" : "Purple Rain",
        "artists" : ["Prince"],
        "genres" : ["Rock", "Soul"],
        "year" : 1984
    },
    {

        "title" : "Despacito",
        "artists" : ["Luis Fonsi", "Daddy Yankee"],
        "genres" : ["Latin", "Pop"],
        "year" : 2007
    }
    ]
}


    document.write(JSON.stringify(songs))
    </script>


</body>
```

```
</html>
```

json2.html

```html
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>Read JSON Demo</title>
<script src="https://code.jquery.com/jquery-3.6.4.js"
integrity="sha256-a9jBBRygX1Bh5lt8GZjXDzyOB+bWve9EiO7tROUtj/E=" crossorigin="anonymous"></script>
</head>

<body>
    <table>
        <tr><th>Title (Year)</th><th>Artists</th><th>Genres</th></tr>

    </table>

    <script language="javascript">

    songs = []
    $.get("https://mirarj.github.io/CS20/Assignment7_JSON/songs.json", function (data) {
        songs = data.songs;

        // Part 2
        part2 = "<h1>Part 2</h1>" + JSON.stringify(songs);

        // Part 3
        part3 = "<h1>Part 3</h1>";
        part3 += "<table><tr><th>Title (Year)</th><th>Artists</th><th>Genres</th></tr>";
        songs.forEach(song => {
            part3 += "<tr><td>" + song.title + " (" + song.year + ")</td>";
            part3 += "<td><ul>";
                song.artists.forEach(a => {
                    part3 += "<li>" + a + "</li>";
                })
                part3 += "</ul></td>";
```

```javascript
            part3 += "<td><ul>";
            song.genres.forEach(g => {
                part3 += "<li>" + g + "</li>";
            })
            part3 += "</ul></td>";
    })
    part3 += "</table>";


    // Part 4
    // create html
    possible_genres = new Set();
    songs.forEach(song => {
        song.genres.forEach (genre => {


            possible_genres.add(genre);
        })
    });


    select_html = "<select id='genreselect'>";
    possible_genres.forEach(g=>{
        select_html += "<option>" + g + "</option>";
    })
    select_html += "</select>";


    button_html = "<input type=button value='Filter' id='filterbutton'></input>";
    song_list_html = "<div id='songlist'></div>";


    part4 = "<h1>Part 4</h1>" + select_html + button_html + song_list_html;
    document.write(part2 + part3 + part4);


    // filter, display songs
    filter_button = document.getElementById("filterbutton");
    selected_genre = document.getElementById("genreselect");
    songdiv = document.getElementById("songlist");


    filter_button.addEventListener('click', function () {
        songs_html = "<h1>Songs</h1>"
        songs.forEach(song => {
```

```javascript
                    display_song = false;
                    song.genres.forEach(genre => {
                        if (genre == selected_genre.value) {
                            display_song = true;
                        }
                    })
                    if (display_song) {
                      songs_html += "<h2>" + song.title + "</h2>";
                      songs_html +=  song.year + "<br />";
                      songs_html += "Artists:<br /><ul>";
                            song.artists.forEach(a => {
                              songs_html += "<li>" + a + "</li>";
                            })
                      songs_html += "</ul>";
                      songs_html += "Genres:<br /><ul>";
                        song.genres.forEach(g => {
                          songs_html += "<li>" + g + "</li>";
                        })
                      songs_html += "</ul>";
                    }
                    })
            songdiv.innerHTML = songs_html;
        })

    });

    </script>

</body>
</html>
```