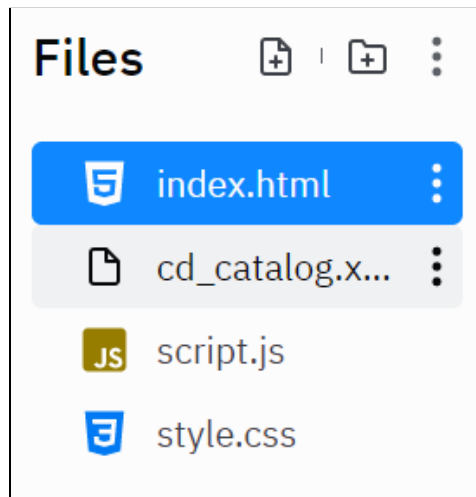**Coding is practice... Practice your JS Code, with help of following steps, which will give you a clear understanding about AJAX.**

Challenge 1: Display XML data in an HTML Table
Steps:
- Open VS code.
- Select New File in the opened folder…
- Save the file in the appropriate folder/ create the folder and save the file with extension.

Files

- index.html
- cd_catalog.x...
- script.js
- style.css

- Copy and add the below code in the xml file created.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<CATALOG>
  <CD>
    <TITLE>Empire Burlesque</TITLE>
    <ARTIST>Bob Dylan</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>Columbia</COMPANY>
    <PRICE>10.90</PRICE>
    <YEAR>1985</YEAR>
  </CD>
  <CD>
    <TITLE>Hide your heart</TITLE>
    <ARTIST>Bonnie Tyler</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>CBS Records</COMPANY>
    <PRICE>9.90</PRICE>
```

```
    <YEAR>1988</YEAR>
</CD>
<CD>
    <TITLE>Greatest Hits</TITLE>
    <ARTIST>Dolly Parton</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>RCA</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>1982</YEAR>
</CD>
<CD>
    <TITLE>Still got the blues</TITLE>
    <ARTIST>Gary Moore</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Virgin records</COMPANY>
    <PRICE>10.20</PRICE>
    <YEAR>1990</YEAR>
</CD>
<CD>
    <TITLE>Eros</TITLE>
    <ARTIST>Eros Ramazzotti</ARTIST>
    <COUNTRY>EU</COUNTRY>
    <COMPANY>BMG</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>1997</YEAR>
</CD>
<CD>
    <TITLE>One night only</TITLE>
    <ARTIST>Bee Gees</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Polydor</COMPANY>
    <PRICE>10.90</PRICE>
    <YEAR>1998</YEAR>
</CD>
<CD>
    <TITLE>Sylvias Mother</TITLE>
    <ARTIST>Dr.Hook</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>CBS</COMPANY>
```

```
    <PRICE>8.10</PRICE>
    <YEAR>1973</YEAR>
</CD>
<CD>
    <TITLE>Maggie May</TITLE>
    <ARTIST>Rod Stewart</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Pickwick</COMPANY>
    <PRICE>8.50</PRICE>
    <YEAR>1990</YEAR>
</CD>
<CD>
    <TITLE>Romanza</TITLE>
    <ARTIST>Andrea Bocelli</ARTIST>
    <COUNTRY>EU</COUNTRY>
    <COMPANY>Polydor</COMPANY>
    <PRICE>10.80</PRICE>
    <YEAR>1996</YEAR>
</CD>
<CD>
    <TITLE>When a man loves a woman</TITLE>
    <ARTIST>Percy Sledge</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>Atlantic</COMPANY>
    <PRICE>8.70</PRICE>
    <YEAR>1987</YEAR>
</CD>
<CD>
    <TITLE>Black angel</TITLE>
    <ARTIST>Savage Rose</ARTIST>
    <COUNTRY>EU</COUNTRY>
    <COMPANY>Mega</COMPANY>
    <PRICE>10.90</PRICE>
    <YEAR>1995</YEAR>
</CD>
<CD>
    <TITLE>1999 Grammy Nominees</TITLE>
    <ARTIST>Many</ARTIST>
    <COUNTRY>USA</COUNTRY>
```

```xml
    <COMPANY>Grammy</COMPANY>
    <PRICE>10.20</PRICE>
    <YEAR>1999</YEAR>
</CD>
<CD>
    <TITLE>For the good times</TITLE>
    <ARTIST>Kenny Rogers</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Mucik Master</COMPANY>
    <PRICE>8.70</PRICE>
    <YEAR>1995</YEAR>
</CD>
<CD>
    <TITLE>Big Willie style</TITLE>
    <ARTIST>Will Smith</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>Columbia</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>1997</YEAR>
</CD>
<CD>
    <TITLE>Tupelo Honey</TITLE>
    <ARTIST>Van Morrison</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Polydor</COMPANY>
    <PRICE>8.20</PRICE>
    <YEAR>1971</YEAR>
</CD>
<CD>
    <TITLE>Soulsville</TITLE>
    <ARTIST>Jorn Hoel</ARTIST>
    <COUNTRY>Norway</COUNTRY>
    <COMPANY>WEA</COMPANY>
    <PRICE>7.90</PRICE>
    <YEAR>1996</YEAR>
</CD>
<CD>
    <TITLE>The very best of</TITLE>
    <ARTIST>Cat Stevens</ARTIST>
```

```
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Island</COMPANY>
    <PRICE>8.90</PRICE>
    <YEAR>1990</YEAR>
</CD>
<CD>
    <TITLE>Stop</TITLE>
    <ARTIST>Sam Brown</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>A and M</COMPANY>
    <PRICE>8.90</PRICE>
    <YEAR>1988</YEAR>
</CD>
<CD>
    <TITLE>Bridge of Spies</TITLE>
    <ARTIST>T'Pau</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Siren</COMPANY>
    <PRICE>7.90</PRICE>
    <YEAR>1987</YEAR>
</CD>
<CD>
    <TITLE>Private Dancer</TITLE>
    <ARTIST>Tina Turner</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>Capitol</COMPANY>
    <PRICE>8.90</PRICE>
    <YEAR>1983</YEAR>
</CD>
<CD>
    <TITLE>Midt om natten</TITLE>
    <ARTIST>Kim Larsen</ARTIST>
    <COUNTRY>EU</COUNTRY>
    <COMPANY>Medley</COMPANY>
    <PRICE>7.80</PRICE>
    <YEAR>1983</YEAR>
</CD>
<CD>
    <TITLE>Pavarotti Gala Concert</TITLE>
```

```xml
    <ARTIST>Luciano Pavarotti</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>DECCA</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>1991</YEAR>
  </CD>
  <CD>
    <TITLE>The dock of the bay</TITLE>
    <ARTIST>Otis Redding</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>Stax Records</COMPANY>
    <PRICE>7.90</PRICE>
    <YEAR>1968</YEAR>
  </CD>
  <CD>
    <TITLE>Picture book</TITLE>
    <ARTIST>Simply Red</ARTIST>
    <COUNTRY>EU</COUNTRY>
    <COMPANY>Elektra</COMPANY>
    <PRICE>7.20</PRICE>
    <YEAR>1985</YEAR>
  </CD>
  <CD>
    <TITLE>Red</TITLE>
    <ARTIST>The Communards</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>London</COMPANY>
    <PRICE>7.80</PRICE>
    <YEAR>1987</YEAR>
  </CD>
  <CD>
    <TITLE>Unchain my heart</TITLE>
    <ARTIST>Joe Cocker</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>EMI</COMPANY>
    <PRICE>8.20</PRICE>
    <YEAR>1987</YEAR>
  </CD>
</CATALOG>
```

● Copy and Add the below code in the index.html file.

```html
<!DOCTYPE html>
<html>
  <head>
<style>
table,th,td {
  border : 1px solid black;
  border-collapse: collapse;
}
th,td {
  padding: 5px;
}
</style>
</head>
<body>

<button type="button" onclick="loadXMLDoc()">Get my CD collection</button>
<br><br>
<table id="demo"></table>

<script>
function loadXMLDoc() {
  const xhttp = new XMLHttpRequest();
  xhttp.onload = function() {
    const xmlDoc = xhttp.responseXML;
    const cd = xmlDoc.getElementsByTagName("CD");
    myFunction(cd)
  }
  xhttp.open("GET", "/cd_catalog.xml");
  xhttp.send();
}

function myFunction(cd) {
  let table="<tr><th>Artist</th><th>Title</th></tr>";
  for (let i = 0; i < cd.length; i++) {
    table += "<tr><td>" +
    cd[i].getElementsByTagName("ARTIST")[0].childNodes[0].nodeValue +
    "</td><td>" +
```

```
    cd[i].getElementsByTagName("TITLE")[0].childNodes[0].nodeValue +
    "</td></tr>";
  }
  document.getElementById("demo").innerHTML = table;
}
</script>


</body>
</html>
```

- View the file in the browser, by right click on the file name in the left pane.
- View of file in browser.
- You may get exception:

- To solve this install server in the CMD or in the VS code terminal:

- Start the static server in the CMD or in the VS code terminal:

```
C:\Users\smdha\Downloads\AJAX>serve -s -l 3000

    Serving!

    - Local:            http://localhost:3000
    - On Your Network:  http://192.168.0.51:3000

    Copied local address to clipboard!


INFO: Gracefully shutting down. Please wait...
```

- View the file in browser:

Get my CD collection

Artist	Title
Bob Dylan	Empire Burlesque
Bonnie Tyler	Hide your heart
Dolly Parton	Greatest Hits
Gary Moore	Still got the blues
Eros Ramazzotti	Eros
Bee Gees	One night only
Dr.Hook	Sylvias Mother
Rod Stewart	Maggie May
Andrea Bocelli	Romanza
Percy Sledge	When a man loves a woman
Savage Rose	Black angel
Many	1999 Grammy Nominees
Kenny Rogers	For the good times
Will Smith	Big Willie style
Van Morrison	Tupelo Honey
Jorn Hoel	Soulsville
Cat Stevens	The very best of
Sam Brown	Stop
T'Pau	Bridge of Spies
Tina Turner	Private Dancer
Kim Larsen	Midt om natten

Challenge 2: Navigate between CDs

Using the above XML file let's try to navigate between CDs (tags in XML) with your knowledge gained on AJAX.

Artist: Bob Dylan
Title: Empire Burlesque
Year: 1985

<< >>
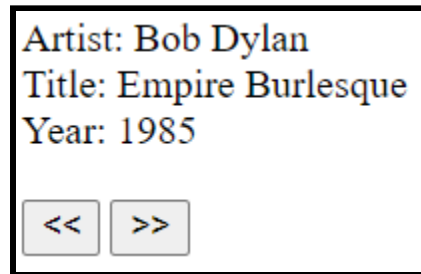
XML:
- Use the same XML file in Challenge 1.

HTML:
- Create a div section to display the CD content.
- Create two buttons to move forward and backward.

JavaScript:
- Create variables for incrementing and decrementing the loop, to store the CD content, to store the length of the XML CD.
- Using the XMLHttpRequest(); get the access to the XML file, get the length, CD content and store it in the respective variables created.
- Loop through each <CD> element, and display the values of the <ARTIST> and the <TITLE> elements.
- Create next and previous functions to navigate the CDs.

HTML:
- On the click event of the buttons invoke the previous and next functions respectively.

Process for Submission

Please upload your assignment files via this Google Form before the deadline (24th May, 2022 11:59 pm).

Steps to submit the assignment:

1. Login to your github account.
2. Create a repository(remote) in github.

3. Push your complete project folder to your git repository or you can upload files manually.

4. Copy the shareable link.
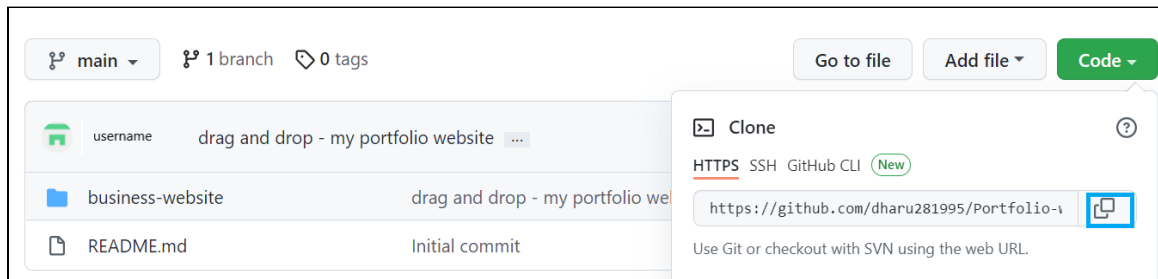
5. Open the [Google Form](#).

6. Enter your email id, name.

7. Select the name of the assignment.

8. Add your project github link in the form.

9. Click on the submit button.