Web Technologies

Assignment - 4

-: Submitted By :-

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20MCMB15

MTECH-IT

-: Submitted to :-

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1. Write JS code that reads XML files and print the details as tabular data. (Assume appropriate members and data for the design and development of the required application).

Index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
   <title>Question 1 | 20MCMB15-IT</title>
   <meta charset="utf-8">
   <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">

   <!-- Bootstrap CSS -->
   <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.cs
s">
  </head>
<body>
<script type="text/javascript" src="read.js"></script>

 <div id='content'>
       <table class="table table-hover"  id='student_record'
cellpadding='10px' style="text-align:left;">
           <thead class="indigo white-text">
               <tr class="bg-success" align="center">
                   <th>First Name</th>
                   <th>Last Name</th>
                   <th>RollNo</th>
                   <th>Contact No.</th>
                   <th>Email</th>
                   <th>Address</th>
                   <th>Department</th>
               </tr>
           </thead>
           <tbody class="table-striped">
```

```
            </tbody>
        </table>
    </div>
</body>
</html>
```

read.js

```
// URL of the XML file.
const URL = "data.xml";
// Fetch the XML as text.
fetch(URL).then(response => response.text()).then(data => {
    // Table from the HTML document.
    let table = document.getElementById('student_record');

    // Parsing XML file.
    let parser = new DOMParser();
    let xmlData = parser.parseFromString(data, "text/xml");
    // Quering the XML with student.
    let students = xmlData.querySelectorAll('student');

    // Loop through all the student details.
    for (let i = 0; i < students.length; i++) {
        // each student details.
        let student = students[i];

        // Log
        console.log(student.children[0].innerHTML);
        console.log(student.children[1].innerHTML);
        console.log(student.children[2].innerHTML);
        console.log(student.children[3].innerHTML);
        console.log(student.children[4].innerHTML);
        console.log(student.children[5].innerHTML);
        console.log(student.children[6].innerHTML);


        // New table row.
        let row = `<tr align="center">
            <td>${student.children[0].innerHTML}</td>
```

```
            <td>${student.children[1].innerHTML}</td>
            <td>${student.children[2].innerHTML}</td>
            <td>${student.children[3].innerHTML}</td>
            <td>${student.children[4].innerHTML}</td>
            <td>${student.children[5].innerHTML}</td>
            <td>${student.children[6].innerHTML}</td>
        </tr>`;

        // Append new row in table.
        table.innerHTML += row;
    }
})
```

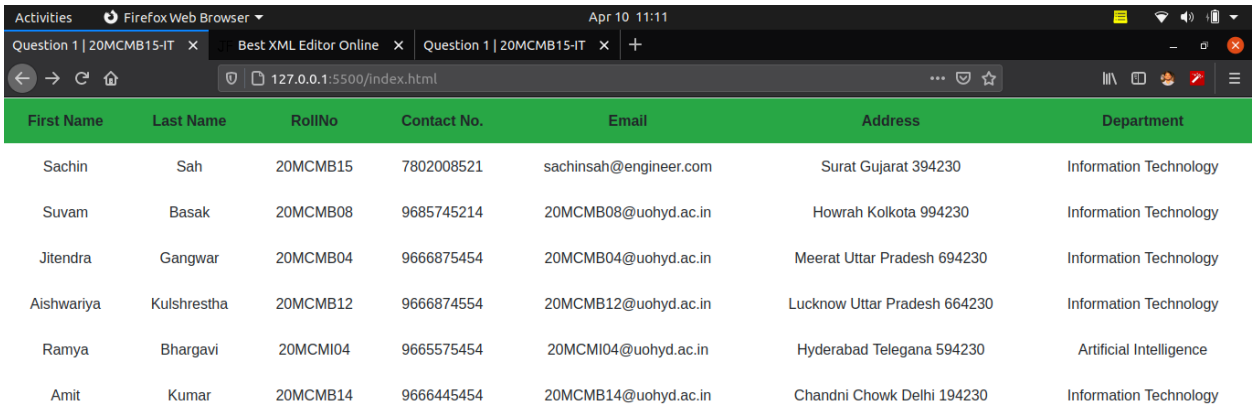
data.xml

```
<?xml version = "1.0" encoding = "UTF-8"?>
<university>
   <student>
      <firstName>Sachin</firstName>
      <lastName>Sah</lastName>
      <rollNo>20MCMB15</rollNo>
      <contactNo>7802008521</contactNo>
      <email>sachinsah@engineer.com</email>
      <address>
         <City>Surat</City>
         <State>Gujarat</State>
         <Zip>394230</Zip>
      </address>
      <department>Information Technology</department>
   </student>
   <student>
      <firstName>Suvam</firstName>
      <lastName>Basak</lastName>
      <rollNo>20MCMB08</rollNo>
      <contactNo>9685745214</contactNo>
      <email>20MCMB08@uohyd.ac.in</email>
      <address>
         <City>Howrah</City>
         <State>Kolkota</State>
```

```
            <Zip>994230</Zip>
        </address>
        <department>Information Technology</department>
    </student>
    <student>
        <firstName>Jitendra</firstName>
        <lastName>Gangwar</lastName>
        <rollNo>20MCMB04</rollNo>
        <contactNo>9666875454</contactNo>
        <email>20MCMB04@uohyd.ac.in</email>
        <address>
            <City>Meerat</City>
            <State>Uttar Pradesh</State>
            <Zip>694230</Zip>
        </address>
        <department>Information Technology</department>
    </student>
    <student>
        <firstName>Aishwariya</firstName>
        <lastName>Kulshrestha</lastName>
        <rollNo>20MCMB12</rollNo>
        <contactNo>9666874554</contactNo>
        <email>20MCMB12@uohyd.ac.in</email>
        <address>
            <City>Lucknow</City>
            <State>Uttar Pradesh</State>
            <Zip>664230</Zip>
        </address>
        <department>Information Technology</department>
    </student>
    <student>
        <firstName>Ramya</firstName>
        <lastName>Bhargavi</lastName>
        <rollNo>20MCMI04</rollNo>
        <contactNo>9665575454</contactNo>
        <email>20MCMI04@uohyd.ac.in</email>
        <address>
            <City>Hyderabad</City>
            <State>Telangana</State>
            <Zip>594230</Zip>
```

```
        </address>
        <department>Artificial Intelligence</department>
    </student>
    <student>
        <firstName>Amit</firstName>
        <lastName>Kumar</lastName>
        <rollNo>20MCMB14</rollNo>
        <contactNo>9666445454</contactNo>
        <email>20MCMB14@uohyd.ac.in</email>
        <address>
            <City>Chandni Chowk</City>
            <State>Delhi</State>
            <Zip>194230</Zip>
        </address>
        <department>Information Technology</department>
    </student>
</university>
```

OUTPUT :



First Name	Last Name	RollNo	Contact No.	Email	Address	Department
Sachin	Sah	20MCMB15	7802008521	sachinsah@engineer.com	Surat Gujarat 394230	Information Technology
Suvam	Basak	20MCMB08	9685745214	20MCMB08@uohyd.ac.in	Howrah Kolkota 994230	Information Technology
Jitendra	Gangwar	20MCMB04	9666875454	20MCMB04@uohyd.ac.in	Meerat Uttar Pradesh 694230	Information Technology
Aishwariya	Kulshrestha	20MCMB12	9666874554	20MCMB12@uohyd.ac.in	Lucknow Uttar Pradesh 664230	Information Technology
Ramya	Bhargavi	20MCMI04	9665575454	20MCMI04@uohyd.ac.in	Hyderabad Telegana 594230	Artificial Intelligence
Amit	Kumar	20MCMB14	9666445454	20MCMB14@uohyd.ac.in	Chandni Chowk Delhi 194230	Information Technology

2. Develop an application using HTML, CSS and Java Script such that access to XMLdata from URL parameters will display the data based on the search keywords mentioned in the textbox. (Assume appropriate members and data for the design and development of the required application).

index.html

```
<!doctype html>
<html lang="en">

<head>
   <!-- Required meta tags -->
   <meta charset="utf-8">
   <meta name="viewport" content="width=device-width, initial-scale=1">

   <!-- Bootstrap CSS -->
   <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/css/bootstra
p.min.css" rel="stylesheet"

integrity="sha384-BmbxuPwQa2lc/FVzBcNJ7UAyJxM6wuqIj61tLrc4wSX0szH/Ev+nYRRu
Wlolflfl" crossorigin="anonymous">
   <title>MyEngine.com | 20MCMB15</title>

   <!-- Style -->
   <style>
       h1 {
           text-align: center;
           background-color: black;
           color: blanchedalmond;
       }

       #logostyle {
           font-size: 90px;
           margin-top: 95px;
           margin-bottom: 50px;
           padding: 10px;
       }
```

```
        #search_bar {
            padding-top: 10px;
            padding-bottom: 10px;
            padding-right: 20px;
            padding-left: 25px;
            font-size: 25px;
            border-radius: 27px;
            box-shadow: 1px 1px 1px #a1a1a1;
        }

        #btn_set {
            margin-top: 30px;
            margin-bottom: 100px;

        }

    </style>
</head>

<body>
    <script type="text/javascript" src="main.js"></script>

    <div class="container">

        <h5 class="card-title" id="title"></h5>
        <br>
        <!-- content -->
        <p class="card-text" id="content"></p>

        <!-- Logo: Search engine -->
        <div class="row justify-content-center">
            <div class="col-md-5">
                <h1 id="logostyle"><strong> MyEngine </strong></h1>
            </div>
        </div>

        <!-- Input : Search bar -->
        <div class="row justify-content-center">
            <div class="col-md-8">
```

```
                <input class="form-control" type="text" placeholder="Write
the keywords here..." id="search_bar">
            </div>
        </div>

        <!-- Search button -->
        <div class="row">
            <div class="d-flex justify-content-center" id="btn_set">
                    <button type="button" class="btn btn-light btn-lg
btn-outline-dark" onclick="search()">Search</button>
                    <button type="button" class="btn btn-light btn-lg
btn-outline-dark" style="margin-left: 5px;">I'm feeling lucky</button>
                </div>
            </div>
        </div>
    </div>
    <center>
    <div>India <br>
        About     Advertisement   Privacy   
Terms    Setting </span></p>
    </div>
   </center>
    <!-- JavaScript -->
    <script>

    </script>
</body>

</html>
```

main.js

```
// Function to validate and redirect to output page.
function search() {
    // extracting keyword.
    var searchKey =
document.getElementById('search_bar').value.trim().toLowerCase();
    // If not empty then redirect to the result page.
    if ('' != searchKey){
```

```
        window.location.href = 'output.html?search=' + searchKey;
    }else{
        alert("Please Enter any keyword !");
    }
}
```

output.html

```
<!doctype html>
<html lang="en">

<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.cs
s"

integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/
dAiS6JXm" crossorigin="anonymous">

    <title>Searched Output</title>
</head>

<style>
    h1{
        font-size: 5em;
    }
</style>

<body>
    <script type="text/javascript" src="search.js"></script>
    <div class="container" style="margin-top: 100px;">

        <!-- Search Result -->
```

```
        <div class="d-flex justify-content-center">
            <div class="card w-75">
                <div class="card-body">
                    <!-- heading -->
                    <h5 class="card-title" id="title"></h5>
                    <br>
                    <!-- content -->
                    <p class="card-text" id="content"></p>
                </div>
            </div>
        </div>
        <!-- Button to go back to search page -->
        <br><br>
        <div class="d-flex justify-content-center">
            <a href="index.html" class="btn btn-outline-dark btn-lg">Back
to Search</a>
        </div>
    </div>
</body>

</html>
```

search.js

```
// retrieve searched keyword from URL.
let params = new URLSearchParams(window.location.search);
const searchKey = params.get('search');

// XML data file.
const URL = "data.xml";
// Fetch the XML as text.
fetch(URL).then(response => response.text()).then(data => {
    let title = document.getElementById('title');
    let content = document.getElementById('content');

    // Parsing XML file.
    let parser = new DOMParser();
    let xmlData = parser.parseFromString(data, "text/xml");
    // Quering the XML with data.
```

```
    let searchDataSets = xmlData.querySelectorAll('data');

    var searchFlag = true;
    // Loop through all the details.
    for (let i = 0; i < searchDataSets.length; i++) {
        let searchData = searchDataSets[i];
        // Compare
        if (searchData.children[0].innerHTML == searchKey) {
            searchFlag = false;

            // Show the details.
            title.innerHTML = '<h1>' + searchKey +'</h1>';
            content.innerHTML = '<h3>' + searchData.children[1].innerHTML
+ '</h3>';
        }
    }

    // If keyword not found in XML.
    if (searchFlag) {
        console.log('NOT FOUND!');
        content.innerHTML = '<h1>Ooops!</h1> NOT FOUND';
    }
})
```

data.xml

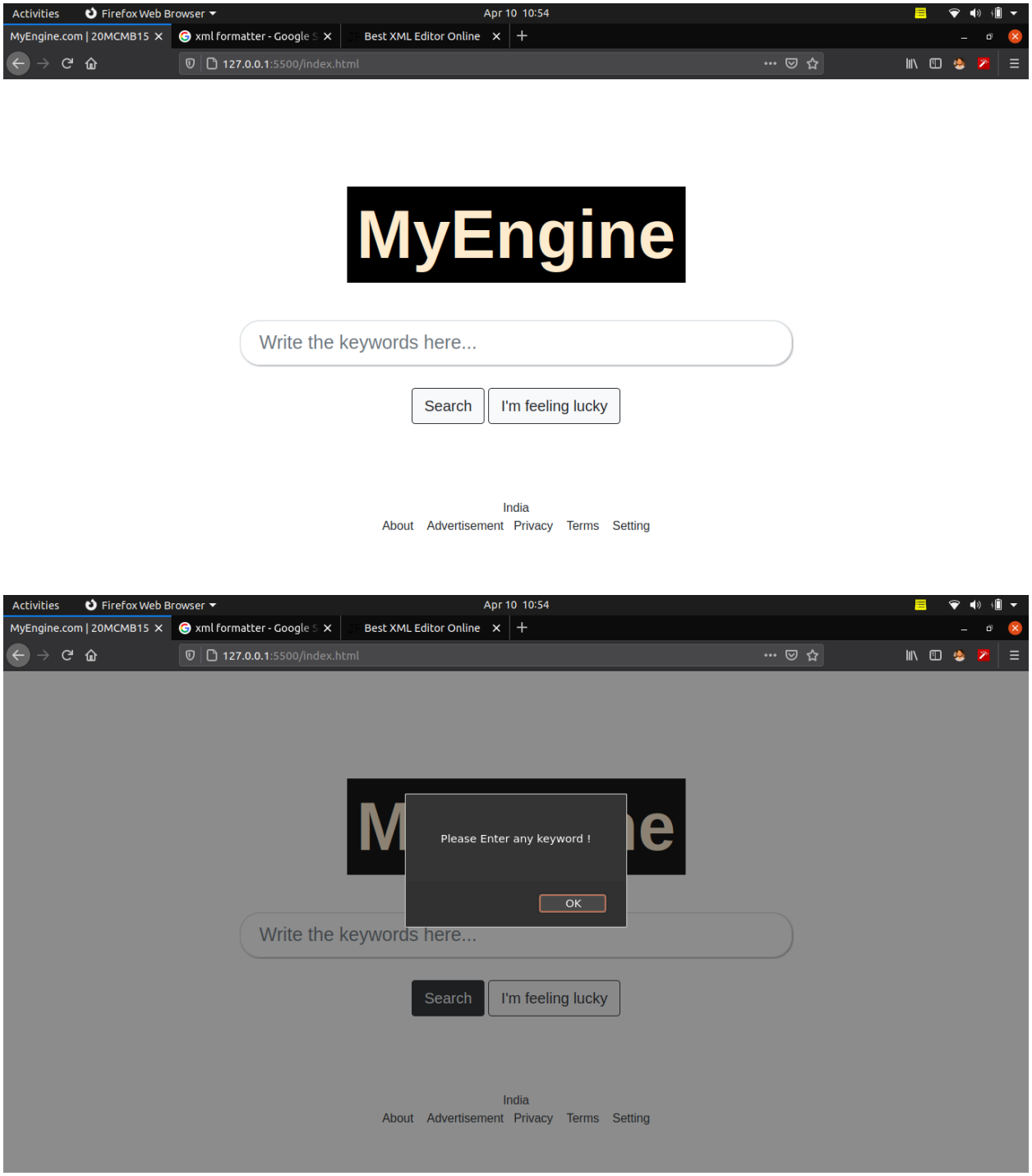
```
<?xml version="1.0" encoding="utf-8" ?>
<dataset>
   <data>
       <keyword>firebase</keyword>
       <description>
     Firebase is a platform developed by Google for creating mobile and
web applications. It was originally an independent company founded in
2011. In 2014, Google acquired the platform and it is now their flagship
offering for app development. Wikipedia
     </description>
   </data>
   <data>
       <keyword>xml</keyword>
       <description>
```

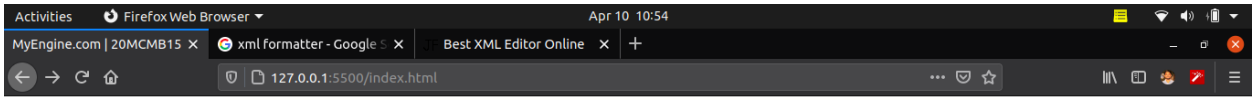
```
     Extensible Markupa Language is a markup language that defines a set
of rules for encoding documents in a format that is both human-readable
and machine-readable.
   </description>
   </data>
   <data>
       <keyword>android</keyword>
       <description>
     Android is a mobile operating system based on a modified version of
the Linux kernel and other open source software, designed primarily for
touchscreen mobile devices such as smartphones and tablets.

   </description>
   </data>
   <data>
       <keyword>javascript</keyword>
       <description>
     JavaScript, often abbreviated as JS, is a programming language that
conforms to the ECMAScript specification.

</description>
   </data>
   <data>
       <keyword>html</keyword>
       <description>
     The HyperText Markup Language, or HTML is the standard markup
language for documents designed to be displayed in a web browser.
     </description>
   </data>
</dataset>
```

OUTPUT :


Activities
Firefox Web Browser
Apr 10 10:54
MyEngine.com | 20MCMB15
xml formatter - Google
Best XML Editor Online
127.0.0.1:5500/index.html
MyEngine
Write the keywords here...
Search
I'm feeling lucky
India
About Advertisement Privacy Terms Setting
Please Enter any keyword !
OK



MyEngine

yahoo

Search I'm feeling lucky

India

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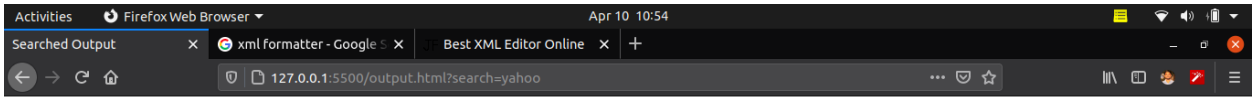
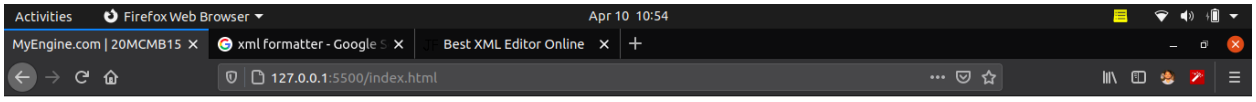


Ooops!

NOT FOUND

Back to Search



MyEngine

firebase

Search | I'm feeling lucky

India

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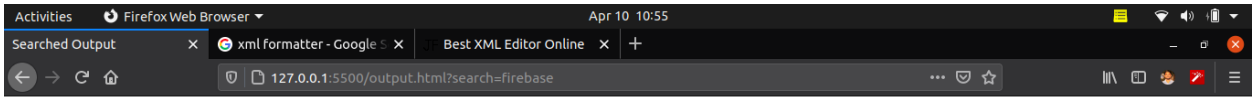

firebase

Firebase is a platform developed by Google for creating mobile and web applications. It was originally an independent company founded in 2011. In 2014, Google acquired the platform and it is now their flagship offering for app development. Wikipedia

Back to Search