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| Faculty of Applied Sciences and Technology |
| **XML/JSON Data Processing** |
| ITC5202 - Project |
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| **4/11/2022** |

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| This document explains how to process XML/JSON data …………………………. |

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# Question 1: Use JavaScript/Ajax to process XML data

(Describe the major steps for designing the JavaScript function(s), how you test this program, add some screenshots of the output )

The first step is to get the data from the xml file. For this we used the .ajax() function of jQuery.

After we get the xml data from the file in our script, we then need to filter out and grab the only data that we require. In this case we need name of the country, it’s capital, unemployment, and the total GDP.

Before extracting the data, we need to know the structure of the dataset. The country name, unemployment, and the total GDP were on a separate tag, but this was not the case for the capital city. There were multiple cities under the country tag and each city has an id and the id of the capital city is tagged to the capital attribute of the country element.

First, we grabbed all the elements with country tag using the **find()** method and then looped through each of them using the jQuery **$.each()** method.

Then, we extracted the country name, unemployment, and the total GDP using the combination of find() and text() method as:

**$(country).find(‘unemployment’).text();**

For, the country name we used .first() method as well after the find() as there were multiple tags for name tag within a country tag.

**$( country).find(‘name’).first().text();**

And for the capital city, we first grabbed all the elements with city tag and then looped though each of them and checked whether its id matched with the capital id. If the id matches, then we have the capital city and grabbed its name.

Finally, to display the data, inside the loop of countries, we prepared a row for each country’s name, capital, unemployment, and total GDP, accessed the html table using the id selector and pushed the row using the **.append()** method.

With the development of each step, we printed the output in the console to check if we are getting the desired result before proceeding to the next step.

Table

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# Question 2,3,5,6: Use JavaScript/jQuery to process JSON data

(Describe the major steps for designing the JavaScript function(s), how you test this program, add some screenshots of the output)

# Question 4 and 7(Bonus) : XSLT and XPath

(Describe the major steps for designing the XSLT. How did you use XPath in the XSLT?

Add screenshot of the XPath testing and the output of XSLT)

# Summary

(Describe how did you divide the work, share your feedback about this project like new points that you learn, challenges, …)