

Project Description

You have been asked to process the XML data of for each European country, which is attached (Country.xml). This data file contains different information about each country. In this project, you also need to collect some JSON data using currency API in order to show the exchange rate of each country currency vs USD or EUR.

Answer the following question

Q1) Develop a JavaScript program using AJAX in order to read the XML file and display its data in the following format:

Country name	Capital	Unemployment	Name of the largest ethnic_group

Q2) Based on the given XML file, complete the following steps:

Step 1: Convert the Contry.xml file into JSON and validate it. Complete the following steps based on

Step 2: Design a HTML page which takes country name from the user and display the following data about each city in HTML table

Province Name	Local Name	Population (2011)	No of Cities in the Province

Q3) Using online Currency APIs like ([http:// fixer.io](http://fixer.io) or <http://jsonrates.com/> or <http://www.floatrates.com/json-feeds.html>) develop a program (using AJAX) which displays the Exchange rate of each country currency vs EURO.

Note: You may need to register for API-key to access to complete JSON data.

Q4) In this question, we want to combine the idea of Q2 and Q3 in order to ask user to enter the country and display both the Country_info and the exchange rate of that currency vs EURO or USD, in HTML table format. You need to complete the following steps:

Step 1: Develop a JavaScript program which prompt user to enter Country Name and find the currency of the country using the JSON data in <https://restcountries.eu/> .

Step 2: Using the currency API in Q3, find the exchange rate of the country currency vs EURO.

Q5) Redesign Q1 by using XSLT/XPath.

- By designing proper XML/XSLT/XPATH documents, display the same output as Q1.

Q6) Using <https://restcountries.eu/> data, develop an HTML page which takes *country name* from the user and displays the followings:

- Country name
- Population
- Flag (image)
- Region
- Sub-region
- Name of Neighbor Countries (Preferably full country name not 3 letters name)
 - *Hint: use border property!*

Note: To know how to use this API, study the <https://restcountries.eu>

Bonus: Q7) Redesign Q2.

- You need to use the concepts that we studied on the first part of the course (XSLT/XPATH,...).
- You work with Country.xml data.
- By designing proper XML/XSLT/XPATH documents, display the same output as Q2.
- Use your creativity to apply proper style to the output

Submission:

You need to submit the followings:

- 1) You need to take screenshot of the source code in the IDE and also the output, and add them into the MS-Word file (project-report.docx)
- 2) You need to validate the documents whenever required.
- 3) ZIP all the html/xml/json/css files and submit them.

Rubrics

The project has 15% of the total which the mark is divided as follow:

- Process XML data using JavaScript/Ajax(6%)
- Process JSON data using JavaScript/Ajax(6%)
- Developing XSLT document (3%)

In designing XML documents and developing JavaScript codes, you need to use your design/coding skills in order to fulfil the project functional requirements and also consider the followings:

- Use your creativity to apply some CSS formatting styles like layout/color/font to the pages
- Add comments you your design/coding
- Assign proper name (for files, methods, variables,...)
- Add proper conditions to handle the errors