Project Description
You have been asked to process the XML data of a superstore, which is attached (order.xml)

Based on order.xml, answer the following question
NOTE: In each step, you need to assign a new name to order.xml before you proceed that step.

Q1) Name all XML root elements and child elements.

Q2) Is this a well-formed document? Is it a valid document? Explain you answer.

Q3) Design the DTD for this document.

Q4) Design XML Schema for this document and link the XML Schema to this document.

Q5) Write an XSLT document to transform order.xml into an HTML document that displays the orders in a table.

Q6) Write an XPATH query to show all order items (items-info) which their `instock = "N"`. Design a new XSLT file which displays these items is red color.

Before starting Q7~Q10, You need to add some new supplier/product data to the *order.xml* file (minimum: 3 customers with 2 items).

Q7) Using Q7.html, you need to develop a proper JavaScript function which will be invoked when user clicks on the "show pending orders" button. The JavaScript function processes the order.xml data and displays all orders that their `status` are "`pending`"

Q8) Using Q8.html, you need to develop a proper JavaScript function which will be invoked when user clicks on the "Search" button. The JavaScript function, reads the item name, and processes the order.xml data and displays all orders that their item_name is matched.

- You need to add **partial search** to this program, so, if user enters "All Star", the program should displays order-id/item-ids for "All Star Shoe" and "All Star Hat"

Q9) Write an XSLT document to transform order.xml into an HTML document that displays all the orders/customers/items information (all ements+attributes) in a table format.

- Highlight products which are not available. (instock='n')
- The output should be sorted by item-id.

Q10) Complete the followings:

- Modify the **order.xml** by removing the <customerid> element and add it as attribute to the <order> element. save it as **order_modified.xml**:

- Based on the new xml data file, redo the Q6, Q7 and Q8.
- From your understanding as developer, explain your idea about coding/processing XML element vs attribute. Which one is easier to develop with JS or XSLT, process *customerid* as

element-data or attribute-data? Explain your answer based on your observation through this project.

Bonus question) How to implement Q8 using XSLT? (Asking user to enter item-name and display related result using XSLT)

Rubrics

The project has 10% of the total which the mark is divided as follow:

- Fundamental XML concepts(1%)
- Designing XML Structure using DTD and XML Schema (2%)
- Developing JavaScript programs to process XML data (4%)
- 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,…)

Submission:

- You need to complete the MS-Word file (name it as Project_report.docx)
- You need to validate the documents whenever required.