**Mid Term**

Data Pre Processing

Q1: What is XLS? Why we use it?

A1: Standing for eXtensible Stylesheet Language, XLS is a styling language for XML consisting of four parts:

XSLT:- A language for transforming XML documents.

XPath:- A language for navigating in XML documents.

XSL-FO:- A language for formatting XML documents (discontinued in 2013).

XQuery:- A language for querying XML documents.

We use XLS to style our XML documents so that they can be formatted in a good structure and make them easy to read and understand.

Q2: What is XML?

A: Standing for eXtensible Markup Language, XML is a markup language used to store and transport data designed to be both human and machine readable. XML doesn’t depend on platform nor software nor programming language. This means it is possible to write a program in any language on any platform to send, receive or store data using XML.

XML structure

<root>

<child>

<subchild>.....</subchild>

</child>

</root>

Q3: Compare JSON and XML. Give 5 points.

A3: Difference between JSON and XML:

|  |  |
| --- | --- |
| JSON | XML |
| 1. JSON object has a type | 1. XML data is typeless |
| 2. JSON types: string, number, array, Boolean | 2. All XML data should be string |
| 3. JSON supports only text and number data type. | 3. XML support various data types such as number, text, images, charts, graphs, etc. It also provides options for transferring the structure or format of the data with actual data. |
| 4. JSON files are easy to read as compared to XML. | 4. XML documents are relatively more difficult to read and interpret. |
| 5. It is less secured. | 5. It is more secure than JSON. |

Q4: Give two examples of each JSON and XML.

A4: Example of JSON:

1. {

"employee": {

"name": "sonoo",

"salary": 56000,

"married": true

}

}

1. {"employees":[

{"name":"Shyam", "email":"shyamjaiswal@gmail.com"},

{"name":"Bob", "email":"bob32@gmail.com"},

{"name":"Jai", "email":"jai87@gmail.com"}

]}

XML examples:

1. <booklist> // Table

<book> // Entry

<title>Harry Potter</title> // Field

<author>J K. Rowling</author>

<year>2005</year>

<price>29.99</price>

</book>

<book>

<title>The flowers of evil</title>

<author>Charles Baudelaire</author>

<year>1857</year>

<price>39,95</price>

</book>

</booklist>

1. <note id="117">

<date>

<year>2020</year>

<month>01</month>

<day>22</day>

</date>

<to>Students</to>

<from>Teacher</from>

</note>

Q5: Is XML outdated? If yes, then what else industry prefers and why?

A5: No, xml is not outdated. It's very widely used. Even if more and more stuff on the web seem to use json, xml is still very common. Many server APIs are implemented in XML. Data feeds such as weather, sporting odds, etc. However, these days developers use JSON more and more as compared to XML because its syntax is straightforward and creation and manipulation is easy.