Updating XML Files using a Tool based on DOM Parser

Nehal Pandey[1], Deepak Pase[2], Priyanka Chaudhari[3]

[1]Associate Consultant, Atos-Syntel Pvt Ltd, Talawade Software Park, Talawade, Pune – 411062, India

[2]Consultant, Atos-Syntel Pvt Ltd, Talawade Software Park, Talawade, Pune – 411062, India

[3]Associate Consultant, Atos-Syntel Pvt Ltd, Talawade Software Park, Talawade, Pune – 411062, India

Abstract: *Routine task in projects where people work on XML files, there is a need of a tool which can eliminate all the tedious manual updating work and make things hassle free. Hence we developed a tool-XML Manager (based on DOM Parser), using which user can easily modify one or thousand XML files with any number of alterations within few minute with zero scope for errors.*

Keywords: XML, DOM Parser, Apache POI, Xpaths

1. Introduction

In most of the IT companies working on numerous varieties of small and large web based projects wherein comes a need to work with data that is in xml format. There can be a single XML file that needs to be updated to progress ahead with testing or development. Changing that single XML file manually won't be that tedious. What if there is more than one xml files that needs few changes? What if the changes that needs to be done are also not few rather needs hundreds or thousands of changes on multiple XML files? These thousands of XML files needs to be updated on the daily basis and people working on it may have to update these files manually. Hence, we have built XML manager-a standalone application tool based on DOM parser which will not only add the new fields with the xpath in given xml file but also update the values of given xpath if needed. We can update a single XML file or multiple XML files with one or multiple changes along with value updates if necessary. Sample XML file:

```
<note>
<to>Tove</to>
<from>Jani</from>
<heading>Reminder</heading>
<body>Don't forget me this weekend!</body>
</note>
```

XML manager is a tool which provides a graphical interface to read the xml file through DOM parser. It also allows you to pass multiple xpaths along with its value in a single exce sheet. User gets an option to update the existing xml files with new changes or the user can instead choose to create copy of the file with new changes in cases where user don't want to lose his od data.

In this paper we have mainly focused on describing our application which is completely new for users which will help them reduce their manual task and complete the provided task in seconds. It is user friendly and interactive due to its exceptional graphical interface which is easy to understand and use.

2. Purpose and Scope

Earlier manual method of update/modifying the large amount test data was time consuming, error prone and repetitive. Hence, to overcome these challenges we came up with automated solution. Hence, the main intention of developing this tool is to reduce the manual efforts of updating the xml files which may change frequently every time there is a new functionality added or modified in the existing web project.
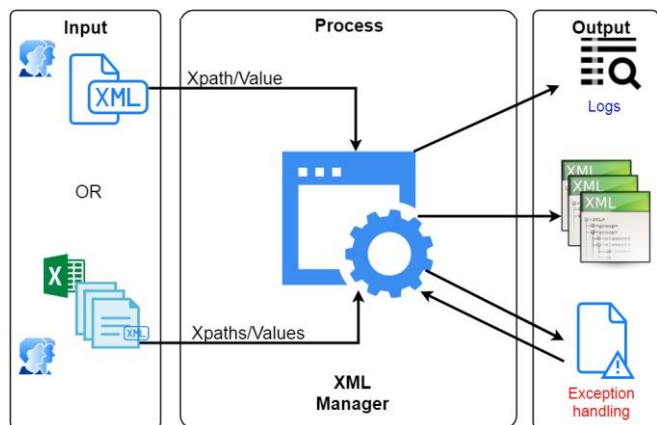
Purpose of this technology is to simply avoid the repetitive task in software industries where user has to always correct the XML file before starting his actual task. This tool covers following scenarios:
1) Single update on Single XML file
2) Single update on Multiple XML files.
3) Multiple updates on Single XML file.
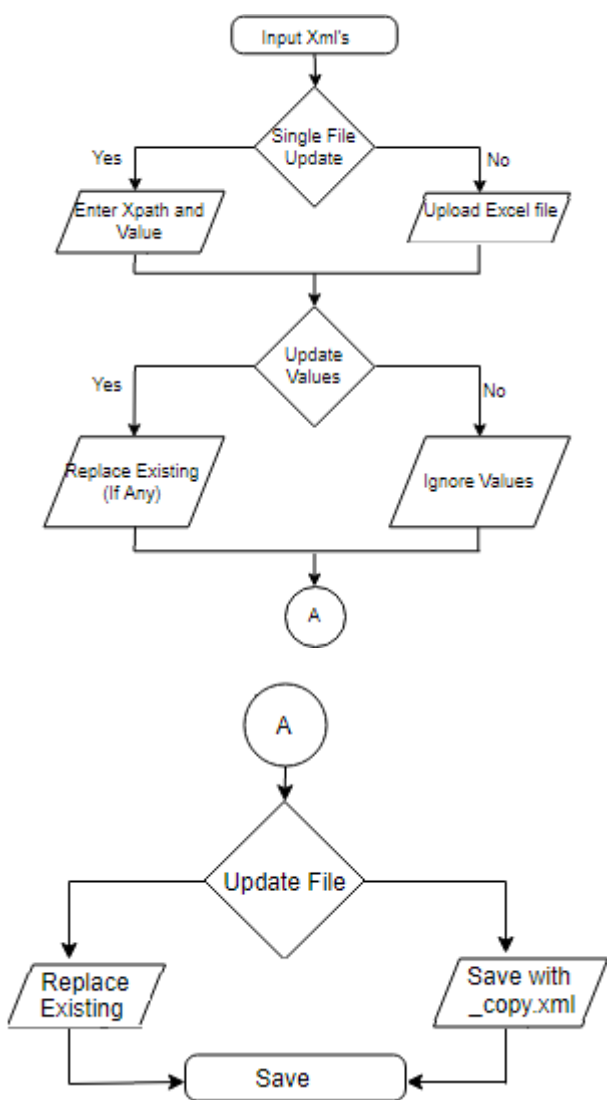4) Multiple updates on Multiple XML files.

3. Project Objective

The aim is to design a user friendly application that will aid users to update any number of XML files with any number of changes within few seconds and eliminate all the manual efforts invested to make these changes. This tool is very effective and capable of completing two or three days of updating XML files tasks in just few minutes.
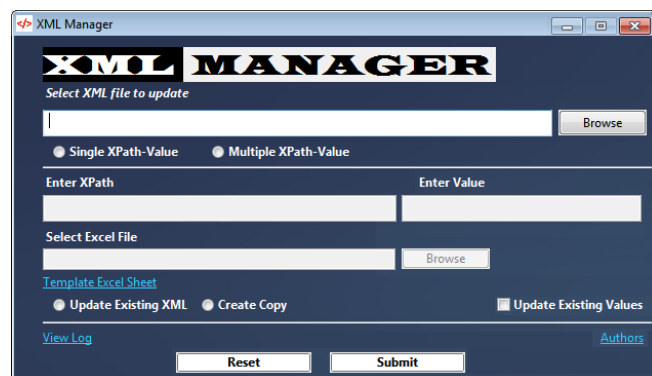
4. Technical Design

5. Flowchart

6. User Interface

7. Conclusion and Future Scope

In this paper we have presented the idea of how our XML Manager tool be used for generic parsing of XML, which can be used to add, modify and update the xml files. It can parse and update any number of xml files with any number of updates. This tool is basically used in software industries where there is a need for large amount of data on daily basis for data exchange between multi-tier architecture, XML files act as middleware for exchange of this information. This tool has been tested for various XML files, single or even thousands of files, can be updated in just few seconds. In the future, we would desire to develop delete functionality to the existing tool and also enhance the performance of the application by adding multithreading ability to update XML files with more swift speeds.