**Part 1 – Step 1: Profiles for 2 files**

At quick glance, the attached 2 files contained the same displayed data which both includes 8 complains with elements and attributes with it. However, after using MD5 checksum tool (<https://emn178.github.io/online-tools/md5_checksum.html>) the two files show different checksum with detailed differences noted below

File A: (Checksum: d30cba6b00308a87fa3a384799c5faf7)

It is the product of old system with no entity in place, however, the file is cleaner in term of formatting and controlling while spaces. This file includes root elements as ConsumerComplaints with the list of 8 complains, each complain includes elements: events, product, issue, ConsumerNarrative, company, submitted, response

Some of the attribute available:

* Element Complaint: Has **complaintID** as REQUIRED
* Element Event : Has 2 attributes **type, date** as REQUIRED
* Element Submitted: Has **VIA** as REQUIRED
* Element Respond: Has **timely,** **consumerDisputed** as REQUIRED data

File B: (Checksum: 47677272e76e1f4332afe859347c869)

It is known to be new system’s product and includes entity as part of the XML. This is more as a modern way to represent an item within an XML document instead of using data itself. Like File A, this file also includes a set of complains with a list of elements: product, issue, etc. However, this XML file does contain many whitespaces with unclean format while structure of using attributes and elements are somewhat different than what we see in the old system

Attributes are used and available:

* Element Complaint: beside **complaintID,** it also includes **submissionType** as IMPLIED which is part of submission attribute in Submitted element in file A
* Element Submitted: now is a standalone element without any attribute goes with

**Part 1 – Step 2: DTD**

(Please check separate attachments )

Consumer\_Complaints\_FileA.xml

Consumer\_Complaints\_FileB.xml

**Part 1 – Step 4: DTD of final**

Check Separate attachment : Consumer\_Complaints\_Final.xml

**Part 1 – Step 5: XML Validator**