

Exception Handling Assignment

Write a program that reads an ARXML file containing a list of containers, each with a unique ID, and reorders the containers alphabetically by their name sub- container ""SHORT-NAME"

". The program should write the reordered containers to a new ARXML file.

ARXML stands for Autosar xml

Autosar stands for AUTomotive Open System ARchitecture

Delivery:

- 1- Link to a git-hub repository including your implementation.
- 2- Readme.md file must exist with proper documentation.
- 3- Batch file which invoke the three possible cases:
 - Normal case --> provide the input file and specify it's name inside the batch script.
 - Not valid Autosar file case --> provide the file also
 - Empty file
 - The goal is that I'm able to run the batch file to test all cases.
 - Include compilation of the java file at the beginning.

Requirements:

- 1- The name of the arxml file shall be an argument which needs to be passed through the command line.
- 2- If the file is not having .arxml extension then you should trigger a user defined handled exception "NotVaildAutosarFileException".
- 3- If the file is empty, then you should trigger user defined unhandled exception "EmptyAutosarFileException"
- 4- The output file shall be named as the same of the input file concatenated with "_mod.arxml"
 - e.g. if the input was named "Rte_Ecuc.arxml" then the output should be "Rte_Ecuc_mod.arxml".
- 5- Assume any missing requirement.

Sample input file:

```
<?xml version="1.0" encoding="UTF-8"?>
<AUTOSAR>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68a">
    <SHORT-NAME>ContainerB</SHORT-NAME>
    <LONG-NAME>AA</LONG-NAME>
  </CONTAINER>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68b">
    <SHORT-NAME>ContainerA</SHORT-NAME>
    <LONG-NAME>BB</LONG-NAME>
  </CONTAINER>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68c">
    <SHORT-NAME>ContainerC</SHORT-NAME>
    <LONG-NAME>CC</LONG-NAME>
  </CONTAINER>
</AUTOSAR>
```

Output should be:

```
<?xml version="1.0" encoding="UTF-8"?>
<AUTOSAR>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68b">
    <SHORT-NAME>ContainerA</SHORT-NAME>
    <LONG-NAME>BB</LONG-NAME>
  </CONTAINER>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68a">
    <SHORT-NAME>ContainerB</SHORT-NAME>
    <LONG-NAME>AA</LONG-NAME>
  </CONTAINER>
  <CONTAINER UUID="198ae269-8478-44bd-92b5-14982c4ff68c">
    <SHORT-NAME>ContainerC</SHORT-NAME>
    <LONG-NAME>CC</LONG-NAME>
  </CONTAINER>
</AUTOSAR>
```