**Scope:**

Python script designed to process and modify ARXML files by replacing specific patterns in diagnostic event paths. It extracts and updates path elements based on a predefined regex pattern.

**Prerequisites**

* Python 3.x
* A valid ARXML file
* The re module (built-in Python module)

**Usage**

**1. Input and Output File Paths**

When running the script, it prompts the user to enter the full paths of the input and output ARXML files.

Example:

Enter the path of the input ARXML file (e.g., C:\Users\mgg3kor\Downloads\817D DrivingBladePrimary.arxml):

Enter the path of the output ARXML file (e.g., C:\Users\mgg3kor\Downloads\output.arxml):

**2. How It Works**

* The script reads the contents of the input ARXML file.
* It searches for diagnostic event paths matching the regex pattern:

(DIAGNOSTIC-EVENT">/DCAXCaller/DTC/DTC/(BOSCH\_[^/]+|RB\_UC[^/]+|DEM\_[^/]+))/([^/\s<]+)

* The last element in the matched path is replaced with the second-last element.
* The modified content is then saved into the specified output file.

**3. Running the Script**

To run the script, execute the Python file and provide the necessary input and output file paths.

python modify\_arxml.py

**Example**

**Input ARXML Snippet:**

<DIAGNOSTIC-EVENT">/DCAXCaller/DTC/DTC/BOSCH\_ABC/XYZ</DIAGNOSTIC-EVENT>

**Output ARXML Snippet:**

<DIAGNOSTIC-EVENT">/DCAXCaller/DTC/DTC/BOSCH\_ABC/BOSCH\_ABC</DIAGNOSTIC-EVENT>

**Notes**

* Ensure that the input file path is correct and that the file is accessible.
* The script modifies ARXML paths strictly based on the given pattern.
* The output file retains the original ARXML structure except for the modified paths.

**License**

This script is free to use and modify as per the project requirements.