

## Report

### To implement an algorithm that would generate a JSON file from a CSV file

#### 1. Motivation

As I used APIs more frequently, the data format they give me will be JSON. In addition to using very little memory, JSON is also very easy to understand. JSON has replaced XML as time passed. As we all using JSON in all things this makes me motivate to convert CSV file to Json file.

#### 2. Introduction about the task

In the above I was provided with a CSV file and said to convert into JSOM file. And in the CSV file there are two columns named as Unnamed: 0 and filepaths. As unnamed : 0 is of no use we can drop the column. A/B/C/D/E.png is the format of the filepaths column. The JSON format should be [{"filepaths":"A","container":"B","person":"C","visitor":"D","fileUUID":"E.png","fileType":"image"}].The file type should be predicted based on the fileUUID. And based on my observation can to know that fileUUID ending in this type format '\_12304.png' is said to be cine and remaining are image.

#### 3. Data extraction, preprocesses, and analysis

As I said above column named unnamed : 0 is dropped and we performed data extraction on column on filepaths. As filepaths are in A/B/C/D/E.png format and done splitting based on '/' and stored in list format. And assigned the list components to its corresponding credentials as [{"filepaths":"A","container":"B","person":"C","visitor":"D","fileUUID":"E.png","fileType":"image"}]. And this to a list and at the last dumped this list into a .JSON file.

##### Start

Read the input data with a column named "unnamed : 0"

**Drop Column:** Drop the "unnamed : 0" column from the dataset

**Perform Data Extraction:** Extract data from the "filepaths" column

**Split Filepaths:** Split the filepaths based on '/' delimiter

**Create Data Structure:**

Create a list of dictionaries, each containing the following components:

"filepaths" assigned to "A"

"container" assigned to "B"

"person" assigned to "C"

"visitor" assigned to "D"

"fileUUID" assigned to "E.png"

"fileType" assigned to "image"

**Append to List:** Append each dictionary to the list created in step 6

**Dump to JSON:**

Convert the list to JSON format

**Output to JSON File:** Write the JSON data to a .JSON file

End

#### 4. Results

By following the above procedure converted CSV file into JSON file based on the requirements.

#### 5. Key findings

There is no difference between the XML and JSON based upon our comfort we are using JSON instead of XML as it is better in all perspectives. And learned how to extract data from CSV and split a single column into multiple and generated a JSON file.

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#### 6. Future work

As I observed in the above case based upon our needs the requirement how to change the CSV file into JSON file will varies and in future I need to work an automotive AI that can generate a JSON based on our requiements.