**A-Utility Start CSV to HORUS**

import pandas as pd

sInputFileName = '/content/Country.csv'

InputData = pd.read\_csv(sInputFileName, encoding = "latin-1")

print('Input Data Values ==================')

print(InputData, “\n==================”)

**# Processing Rules**

ProcessData = InputData

# Remove columns ISO-2-Code and ISO-3-CODE

ProcessData.drop('ISO-2-CODE', axis = 1, inplace = True)

ProcessData.drop('ISO-3-Code', axis = 1, inplace = True)

# Rename Country and ISO-M49

ProcessData.rename(columns = {'Country': 'CountryName'}, inplace = True)

ProcessData.rename(columns = {'ISO-M49': 'CountryNumber'}, inplace = True)

# Set new Index

ProcessData.set\_index('CountryNumber', inplace = True)

# Sort data by CurrencyNumber

ProcessData.sort\_values('CountryName', axis = 0, ascending =False, inplace=True)

print('\n=====Process Data Values=====')

print(ProcessData)

**# Output Agreement**

OutputData=ProcessData

sOutputFileName='/content/drive/MyDrive/Country.csv'

OutputData.to\_csv(sOutputFileName, index = False)

print('CSV to HORUS - Done')

**Output:**

Input Data Values ===================================

Country ISO-2-CODE ISO-3-Code ISO-M49

0 Afghanistan AF AFG 4

1 Aland Islands AX ALA 248

2 Albania AL ALB 8

3 Algeria DZ DZA 12

4 American Samoa AS ASM 16

.. ... ... ... ...

242 Wallis and Futuna Islands WF WLF 876

243 Western Sahara EH ESH 732

244 Yemen YE YEM 887

245 Zambia ZM ZMB 894

246 Zimbabwe ZW ZWE 716

[247 rows x 4 columns]

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=================Process Data Values=============

CountryName

CountryNumber

716 Zimbabwe

894 Zambia

887 Yemen

732 Western Sahara

876 Wallis and Futuna Islands

... ...

16 American Samoa

12 Algeria

8 Albania

248 Aland Islands

4 Afghanistan

[247 rows x 1 columns]

CSV to HORUS – Done

**B-Image to Horus**

from skimage import io

import pandas as pd

import matplotlib.pyplot as plt

import numpy as np

sInputFileName='/content/audi.jpg'

InputData = io.imread(sInputFileName, pilmode='RGBA')

plt.imshow(InputData)

InputData.shape

print('Input Data Values')

print('X: ',InputData.shape[0])

print('Y: ', InputData. shape[1])

print('RGBA: ', InputData.shape[2])

ProcessRawData=InputData.flatten()

y=InputData.shape[2] + 2

x=int(ProcessRawData.shape[0]/y)

ProcessData=pd.DataFrame(np.reshape(ProcessRawData, (x, y)))

ProcessRawData

ProcessData=pd.DataFrame(np.reshape(ProcessRawData, (x, y)))

sColumns= [ 'XAxis', 'YAxis', 'Red', 'Green', 'Blue','Aplha']

ProcessData.columns=sColumns

ProcessData

print('Rows: ',ProcessData.shape[0])

print('Columns :',ProcessData.shape[1])

OutputData = ProcessData

OutputData.to\_csv('Image to HORUS.csv', index = False)

**Output:**

Input Data Values

X: 168

Y: 300

RGBA: 4

Rows: 33600

Columns : 6

