This is a pseudocode to convert a macro enabled Excel (.xlsm) workbook into multiple comma separated value (.csv) files. The number of csv files are equal to the number of sheets in .xlsm workbook. The .xlsm workbook has multiple sheets. These sheets contain the raw data extracted from the different data sources or websites. There is also a cleaned dataset sheet in the .xlsm workbook that has the selected and curated data for further visualization. The .csv file of cleaned dataset is used to visualize the streamed data as charts on the webpage.

**The actual code was written in VBA script.**

**Start:**

Declare Excel.Worksheet *ws*

Declare String *SaveToDirectory*

Initialize *SaveToDirectory* as “Streaming-Visualization\Web Visualization\data\”

# Start loop

For Each *ws* in ThisWorkbook.Worksheets //ThisWorkbook.Worksheets is a VBA method that returns all the //worksheets in the Excel Workbook

*ws*.SaveAs SaveToDirectory & *ws*.Name, xlCSV //Save the excel sheet as the csv format with respective sheet name as csv file name.

Next

# End loop

**End.**

Write pseudo code for visualizing streaming data

Consider only curated data in the csv format generated from the above step.

**Start:**