# Problem 2: (Counting values)

**Method 1: Using pandas library for loading tab-separated values (tsv) file**  
[Looking at the content of files reveals that all values are separated by the tab character. A tab-separated values (tsv) file is a simple text format for storing data in a tabular structure. TSV is similar to a comma separated values (csv) files with only one difference that TSV use tab as separation and CSV use comma (,).]

**Following python code will iterate through all files in the directory and read content of every file using pandas dataframe and count the total number of values.**

import pandas as pd

import os

for filename in os.listdir('./'):

  df = pd.read\_csv(filename, sep='\t', lineterminator='\n')

  if len(df.columns) < 100:

    print(filename,' file contains ',len(df.columns),' values')

  del df

**Method 2: Using AWK command on Linux operating system**  
[AWK is a command-line text manipulation utility in Linux operating system. It is also a scripting language]

**The awk statement given below will iterate through all files in the directory and read content of every file and count the total number of values. The output is redirected to an output.txt file. (Following statement is tested in Google Colab environment)**

!echo "" > /content/tmp/output.txt

!for File in \*; \

  do awk '{print (FILENAME " file contain " (gsub(/\t/,"")+1) " values.")}' $File >> /content/tmp/output.txt; \

done