## preprocess\_dataset

## June 2, 2020

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In [53]: import csv
         import pandas as pd
         import numpy as np
         from sklearn.utils import shuffle
         # filename1 = "X_test.txt"
         # filename2 = "X_train.txt"
         # df_data_test = pd.read_csv(filename1,header=None, error_bad_lines=False)
         # df_data_train = pd.read_csv(filename1, header=None, error_bad_lines=False)
         # df_data.to_csv("X_test_2.csv",index=False)
         # print (df_data.head(1).shape)
         filename3 = "X_train_cleaned.csv"
         filename4 = "y_train.csv"
         filename5 = "X_test_cleaned.csv"
         filename6 = "y_test.csv"
         df_train_data = pd.read_csv(filename3)
         df_train_labels = pd.read_csv(filename4)
         df_test_data = pd.read_csv(filename5)
         df_test_labels = pd.read_csv(filename6)
         df_train_total = pd.concat([df_train_data,df_train_labels],axis=1)
         df_test_total = pd.concat([df_test_data,df_test_labels],axis=1)
In [54]: np_train = np.array(df_train_total)
         np_test = np.array(df_test_total)
In [55]: np_train = shuffle(np_train)
         np_test = shuffle(np_test)
In [56]: np_full = np.concatenate((np_train,np_test))
In [57]: np_full.shape
Out [57]: (10299, 562)
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In [58]: new_data_train_dict = [5,5,5,5,5,5,5]
        new_data_train = []
         for i in np_full:
             if(new_data_train_dict[int(i[-1])] > 0):
                 new_data_train.append(i)
                 new_data_train_dict[int(i[-1])] -= 1
             continue
In [59]: new_data_train = np.array(new_data_train)
In [60]: new_data_train.shape
Out[60]: (30, 562)
In [61]: list_data = new_data_train.tolist()
In [62]: # list_data[0]
In [63]: # list_data[0][-1]
In [64]: new_format_data = []
         for i in list_data:
             data = map(str,i[:20])
             data = ",".join(data)
             data = '"' + data + ','
             data += str(i[-1]) + '"\n'
             new_format_data.append(data)
In [65]: # new_format_data[3]
In [66]: # new_format_data[0]
In [67]: f = open("preprocessed_data_to_blockchain.txt","w")
In [68]: for i in new_format_data:
             f.write(i)
In [69]: f.close()
```