ZONE 3232

```python
import pandas as pd
zone_3232_flow_df = pd.read_csv("/home/datascience/Downloads/cleaning1/3232/flow.tsv",
            na_values=['-'], sep='\t', names = ['f_d1','f_d2'])
zone_3232_speed_df = pd.read_csv("/home/datascience/Downloads/cleaning1/3232/speed.tsv",
            na_values=['-'], sep='\t', names = ['s_d1','s_d2'])
zone_3232_occupancy_df =
pd.read_csv("/home/datascience/Downloads/cleaning1/3232/occupancy.tsv",
            na_values=['-'], sep='\t', names = ['o_d1','o_d2'])
zone_3232_d1_vector = pd.concat([zone_3232_flow_df['f_d1'], zone_3232_speed_df['s_d1'],
zone_3232_occupancy_df['o_d1']], axis=1)
def isNaN(x):
    return (x == x) == False
is_3232_f_d1_Nan = ~isNaN(zone_3232_d1_vector['f_d1'])
zone_3232_d1_vector = zone_3232_d1_vector[is_3232_f_d1_Nan]
is_3232_s_d1_Nan = ~isNaN(zone_3232_d1_vector['s_d1'])
zone_3232_d1_vector = zone_3232_d1_vector[is_3232_s_d1_Nan]
is_3232_o_d1_Nan = ~isNaN(zone_3232_d1_vector['o_d1'])
zone_3232_d1_vector = zone_3232_d1_vector[is_3232_o_d1_Nan]
zone_3232_d2_vector = pd.concat([zone_3232_flow_df['f_d2'], zone_3232_speed_df['s_d2'],
zone_3232_occupancy_df['o_d2']], axis=1)
is_3232_f_d2_Nan = ~isNaN(zone_3232_d2_vector['f_d2'])
zone_3232_d2_vector = zone_3232_d2_vector[is_3232_f_d2_Nan]
is_3232_s_d2_Nan = ~isNaN(zone_3232_d2_vector['s_d2'])
zone_3232_d2_vector = zone_3232_d2_vector[is_3232_s_d2_Nan]
is_3232_o_d2_Nan = ~isNaN(zone_3232_d2_vector['o_d2'])
zone_3232_d2_vector = zone_3232_d2_vector[is_3232_o_d2_Nan]
zone_3232_d1_vector.columns = ['flow','speed','occupancy']
zone_3232_d2_vector.columns = ['flow','speed','occupancy']
zone_3232_vector = zone_3232_d1_vector.append(zone_3232_d2_vector)
from scipy.stats import multivariate_normal
import numpy as np
mean = np.mean(zone_3232_vector)
cov = zone_3232_vector.cov()
zone_3232_vector['probability'] = multivariate_normal.pdf(zone_3232_vector, mean, cov)
zone_3232_vector['flow'] = zone_3232_vector['flow'].astype(int)
zone_3232_vector['speed'] = zone_3232_vector['speed'].astype(int)
zone_3232_vector['occupancy'] = zone_3232_vector['occupancy'].astype(int)
zone_3232_vector = zone_3232_vector.reset_index()
is_occ_neg = zone_3232_vector['occupancy'] <0
zone_3232_vector_is_neg_occ = zone_3232_vector[is_occ_neg]
is_speed_neg = zone_3232_vector['speed'] <0
zone_3232_vector_is_neg_speed = zone_3232_vector[is_speed_neg]
is_flow_neg = zone_3232_vector['flow'] <0
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zone_3232_vector_is_neg_flow = zone_3232_vector[is_flow_neg]
zone_3232_vector_is_neg =
zone_3232_vector_is_neg_flow.append(zone_3232_vector_is_neg_speed.append(zone_3232_vector_is
_neg_occ))
zone_3232_vector_is_neg = zone_3232_vector_is_neg.drop_duplicates()
zone_3232_vector_is_neg['probability'] = 0
zone_3232_vector = zone_3232_vector.append(zone_3232_vector_is_neg)
zone_3232_vector['index'] = zone_3232_vector.index
zone_3232_vector= zone_3232_vector.drop_duplicates(['index'], take_last = True)
zone_3232_vector.set_index = zone_3232_vector['index']
zone_3232_vector = zone_3232_vector.drop('index', axis =1)
zone_3232_vector = zone_3232_vector.sort_index()
zone_3232_sorted_vector = zone_3232_vector.sort(['probability'])
zone_3232_sorted_vector = zone_3232_sorted_vector.reset_index(drop=True)
is_100th_row = zone_3232_sorted_vector.index % 100 == 0
zone_3232_sorted_vector_is_100th = zone_3232_sorted_vector[is_100th_row]
zone_3232_sorted_vector_is_100th['probability'] =
zone_3232_sorted_vector_is_100th['probability'].apply('{:.8f}'.format)
zone_3232_sorted_vector_is_100th.to_csv("/home/datascience/Downloads/cleaning1/3232/3232.txt",
sep='\t', index=False)
```