In [1]: import pandas as pd In [2]: data = pd.read_csv('sam.csv') In [3]: type(data) Out[3]: pandas.core.frame.DataFrame In [4]: data.info Out[4]: <bound method DataFrame.info of</pre> Observation Y-Kappa ChipRate BF-CMratio BlowFlow ChipLevel4 \ 31-00:00 16.520 121.717 1177.607 23.10 169.805 31-01:00 27.60 16.810 79.022 1328.360 341.327 31-02:00 16.709 79.562 1329.407 2 23.19 239.161 81.011 1334.877 31-03:00 16.478 3 23.60 213.527 31-04:00 22.90 15.618 93.244 1334.168 243.131 319 10-16:00 23.75 12.667 93.450 1178.252 276.955 320 9-19:00 19.80 12.558 94.352 1184.119 297.071 321 9-20:00 23.01 12.550 90.842 1188.517 289.826 322 9-21:00 24.32 13.083 88.910 1192.879 318.006 323 9-22:00 13.417 85.451 1186.342 248.312 25.75 UCZAA WhiteFlow-4 ... SteamFlow-4 \ T-upperExt-2 T-lowerExt-2 0 358.282 329.545 1.443 599.253 ... 67.122 351.050 329.067 1.549 537.201 ... 60.012 1 350.022 61.304 2 329.260 1.600 549.611 ... 3 350.938 331.142 1.604 623.362 ... 68.496 4 351.640 332.709 NaN 638.672 ... 70.022 319 347.286 310.970 1.523 513.956 ... 61.141 570.058 ... 320 399.135 319.576 1.451 67.667 321 373.633 314.591 1.457 549.306 ... 66.446 322 308.559 1.523 61.054 364.081 504.852 ... 310.482 1.474 323 356.289 497.375 ... 58.247 Lower-HeatT-3 Upper-HeatT-3 ChipMass-4 WeakLiquorF BlackFlow-2 \ 1127,197 175.964 0 329.432 303.099 1319.039 330.823 304.879 163.202 665.975 1297.317 1 303.383 164.013 677.534 2 329.140 1327.072 328.875 302.254 181.487 767.853 1324.461 328.352 300.954 183.929 888.448 1343.424 4 319 330.117 304.006 148.174 1027.201 1357.271 320 330.848 304.616 165.178 906.962 1311.177 321 330.226 304.686 160.841 887.125 1319.226 322 327.346 304.363 147.589 804.423 1320.225 323 304.093 328.092 144.218 828.328 1320.848 WeakWashF SteamHeatF-3 T-Top-Chips-4 SulphidityL-4 0 257.325 54.612 252.077 NaN 241.182 46.603 251.406 29.11 237.272 51.795 251.335 NaN 239.478 54.846 250.312 29.02 3 215.372 54.186 249.916 29.01 4 319 381.643 45.264 252.947 30.86 320 25.494 50.528 252.092 30.70 321 NaN 0.638 45.549 252.438 322 0.000 43.725 253.176 31.13 323 1.276 43.840 253.216 NaN [324 rows x 23 columns]> In [5]: data.shape Out[5]: (324, 23) In [6]: data.describe() # descriptive statistics Out[6]: WhiteFlow- AAWhiteSt-T-upperExt- T-lowerExt-SteamFlow-SteamHeatF-Lower-Upper-ChipMass-BlackFlow-2 WeakWashF **UCZAA** ChipRate BF-CMratio BlowFlow ChipLevel4 WeakLiquorF Y-Kappa 2 HeatT-3 HeatT-3 3 ... 323.000000 322.000000 322.000000 323.000000 count 324.000000 319.000000 307.000000 308.000000 323.000000 322.000000 322.000000 299.000000 323.000000 173.000000 323.000000 322.000000 323.000000 322.000000 323 87.464456 1237.837614 258.164483 356.904295 324.020180 20.635370 14.347937 1.492010 591.732260 6.140410 66.668285 325.567820 300.525699 162.222322 873.828941 1175.917016 263.543068 49.696907 251 mean 5.708587 163.666942 3.070036 100.593735 87.987452 9.209290 0.105923 67.016351 0.081609 4.568484 14.160688 122.073521 149.334010 4.551909 1 1.499095 7.995012 7.621402 4.609862 std 12.170000 9.983000 68.645000 0.000000 0.000000 339.168000 284.633000 1.182000 405.111000 5.890000 48.568000 318.051000 293.312000 113.922000 486.938000 838.948000 0.000000 35.510000 248 min 81.823000 1193.215250 213.527000 350.241250 321.420000 1044.817500 134.649000 25% 18.382500 13.358000 1.431500 540.989500 6.089000 62.518000 321.385500 296.513250 153.032500 792.019500 46.389750 250 20.845000 86.739000 1273.138500 271.792000 356.843000 325.669000 67.429000 324.741000 299.126000 163.690000 50% 14.308000 1.498000 592.895000 6.135000 865.254000 1150.221500 269.193000 50.277000 251 23.032500 15.517000 92.372000 1289.196000 321.680000 362.242250 329.175000 1.560500 639.480500 71.522000 329.845250 304.244750 172.555000 965.286500 1319.021250 405.563000 53.294250 252 75% 6.199000 16.958000 121.717000 1351.240000 419.014000 399.135000 337.012000 1.747000 731.394000 6.340000 76.147000 333.854000 311.146000 189.268000 1226.277000 1395.767000 715.715000 63.332000 254 8 rows × 22 columns In [7]: data = data.drop_duplicates() data Out[7]: T-T-WhiteFlow-ChipMass-SteamHeatF-T-Top-SteamFlow-BlackFlow-SulphidityL-Y-BF-Upper-Lower-ChipRate lowerExt- UCZAA Observation BlowFlow ChipLevel4 upperExt-WeakLiquorF WeakWashF Kappa **CMratio** 4 HeatT-3 HeatT-3 Chips-4 2 2 31-00:00 23.10 16.520 121.717 1177.607 169.805 358.282 329.545 1.443 599.253 ... 67.122 329.432 303.099 175.964 1319.039 257.325 54.612 252.077 1127.197 NaN 31-01:00 27.60 16.810 79.022 1328.360 341.327 351.050 329.067 537.201 ... 60.012 330.823 304.879 163.202 665.975 1297.317 241.182 46.603 251.406 29.11 1.549 31-02:00 79.562 1329.407 239.161 350.022 329.260 61.304 329.140 303.383 164.013 677.534 1327.072 237.272 251.335 2 23.19 16.709 1.600 549.611 ... 51.795 NaN 31-03:00 23.60 16.478 81.011 1334.877 213.527 350.938 331.142 1.604 623.362 ... 68.496 328.875 302.254 181.487 767.853 1324.461 239.478 54.846 250.312 29.02 638.672 ... 31-04:00 22.90 93.244 1334.168 243.131 351.640 332.709 70.022 328.352 300.954 183.929 888.448 1343.424 215.372 249.916 4 15.618 NaN 54.186 29.01 532.419 ... 298 12-09:00 20.90 15.167 84.640 1283.706 339.440 354.803 311.041 1.635 65.561 332.924 307.626 145.299 832.906 1344.708 388.911 49.524 251.833 30.29 12-10:00 85.034 1278.345 368.564 357.723 321.387 520.365 ... 307.169 151.544 1344.469 418.979 251.614 30.47 299 24.98 NaN NaN 65.729 332.523 905.639 48.135 553.070 ... 300 12-11:00 21.00 NaN 88.013 1307.722 278.842 357.438 323.757 NaN 65.795 331.263 306.400 157.954 908.691 1344.588 462.712 54.373 251.197 NaN 301 12-12:00 21.40 NaN 85.490 1255.986 273.484 361.365 322.689 NaN 590.199 .. 71.456 333.032 308.732 174.069 986.206 1348.747 457.313 53.194 251.324 30.46 307 31-05:00 20.89 14.308 94.172 1327.832 251.120 351.263 332.485 1.522 631.514 ... 71.286 328.699 300.706 180.229 1323.082 232.729 54.503 250.084 903.605 NaN 301 rows × 23 columns In [8]: data.isnull().sum() Out[8]: Observation 0 Y-Kappa 0 ChipRate 4 BF-CMratio 14 BlowFlow 13 ChipLevel4 1 T-upperExt-2 1 T-lowerExt-2 24 UCZAA WhiteFlow-4 1 AAWhiteSt-4 141 AA-Wood-4 1 ChipMoisture-4 1 SteamFlow-4 1 Lower-HeatT-3 1 Upper-HeatT-3 ChipMass-4 1 WeakLiquorF 1 BlackFlow-2 1 WeakWashF SteamHeatF-3 1 T-Top-Chips-4 1 SulphidityL-4 141 dtype: int64 In [9]: data.notnull() Out[9]: BlackFlow-SteamHeatF-T-Top- SulphidityL-BF-T-WhiteFlow-SteamFlow-Y-T-Upper-ChipMass-Lower-**UCZAA** WeakWashF Observation ChipRate BlowFlow ChipLevel4 WeakLiquorF upperExt-2 lowerExt-2 Kappa **CMratio** 4 HeatT-3 HeatT-3 Chips-4 4 4 True 0 True True False True True True True True True True True ... True ... True 2 True True True ... True False True 3 True ... True 4 True True True True False True ... True ---True True True True True 298 True ... 299 True False True True True True False True ... True 300 True True False True False True True False True True True True True ... True True True True True True True 301 True False True True True True False True ... True 307 True ... True True True True True True True False 301 rows × 23 columns In [10]: data.isnull().sum().sum() Out[10]: 352 In [11]: data2 = data.fillna(value=0) data2 Out[11]: T-T-T-Top-ChipMass-SteamHeatF-SulphidityL-BF-WhiteFlow-SteamFlow-BlackFlow-Upper-Lower-ChipRate lowerExt- UCZAA WeakWashF Observation BlowFlow ChipLevel4 upperExt-WeakLiquorF Kappa **CMratio** 4 HeatT-3 HeatT-3 Chips-4 4 2 2 31-00:00 23.10 16.520 121.717 1177.607 169.805 358.282 329.545 1.443 599.253 ... 67.122 329.432 303.099 175.964 1127.197 1319.039 257.325 54.612 252.077 0.00 27.60 341.327 329.067 537.201 ... 163.202 1297.317 241.182 31-01:00 16.810 79.022 1328.360 351.050 1.549 60.012 330.823 304.879 665.975 46.603 251.406 29.11 31-02:00 23.19 16.709 79.562 1329.407 239.161 350.022 329.260 1.600 549.611 ... 61.304 329.140 303.383 164.013 677.534 1327.072 237.272 51.795 251.335 0.00 2 328.875 239.478 250.312 31-03:00 23.60 16.478 81.011 1334.877 213.527 350.938 331.142 1.604 623.362 .. 68.496 302.254 181.487 767.853 1324.461 54.846 29.02 31-04:00 22.90 15.618 93.244 1334.168 243.131 351.640 332.709 0.000 638.672 ... 70.022 328.352 300.954 183.929 888.448 1343.424 215.372 54.186 249.916 29.01 12-09:00 20.90 15.167 84.640 1283.706 339.440 354.803 311.041 1.635 532.419 65.561 332.924 307.626 145.299 832.906 1344.708 388.911 49.524 251.833 30.29 298 12-10:00 0.000 85.034 1278.345 368.564 357.723 321.387 0.000 520.365 ... 65.729 307.169 151.544 905.639 1344.469 418.979 48.135 251.614 30.47 299 24.98 332.523 0.000 357.438 323.757 553.070 ... 157.954 1344.588 462.712 251.197 300 12-11:00 21.00 88.013 1307.722 278.842 0.000 65.795 331.263 306.400 908.691 54.373 0.00 12-12:00 0.000 85.490 1255.986 273.484 361.365 322.689 0.000 590.199 ... 333.032 308.732 174.069 986.206 1348.747 457.313 251.324 30.46 301 21.40 71.456 53.194 31-05:00 20.89 14.308 94.172 1327.832 251.120 351.263 332.485 1.522 631.514 ... 328.699 300.706 180.229 1323.082 232.729 54.503 250.084 0.00 307 71.286 903.605 301 rows × 23 columns In [12]: data3 = data.fillna(method='pad') C:\Users\pc\AppData\Local\Temp\ipykernel_10944\1183050913.py:1: FutureWarning: DataFrame.fillna with 'method' is deprecated and will raise in a future version. Use obj.ffill() or obj.bfill() instead. data3 = data.fillna(method='pad') Out[12]: T-T-BlackFlow-WhiteFlow-SteamFlow-SteamHeatF-SulphidityL-Lower-Upper-ChipMass-T-Top-ChipRate lowerExt- UCZAA WeakWashF Observation BlowFlow ChipLevel4 upperExt-WeakLiquorF Kappa **CMratio** 4 HeatT-3 HeatT-3 3 Chips-4 4 2 2 31-00:00 23.10 16.520 121.717 1177.607 169.805 358.282 329.545 1.443 599.253 ... 67.122 329.432 303.099 175.964 1127.197 1319.039 257.325 54.612 252.077 NaN 1297.317 241.182 31-01:00 27.60 16.810 79.022 1328.360 341.327 351.050 329.067 1.549 537.201 60.012 330.823 304.879 163.202 665.975 46.603 251.406 29.11 31-02:00 79.562 1329.407 239.161 350.022 329.260 1.600 549.611 ... 61.304 329.140 303.383 164.013 677.534 1327.072 237.272 251.335 29.11 2 23.19 16.709 51.795 81.011 1334.877 331.142 31-03:00 23.60 213.527 350.938 1.604 623.362 ... 68.496 328.875 302.254 181.487 1324.461 239.478 250.312 29.02 16.478 767.853 54.846 31-04:00 22.90 15.618 93.244 1334.168 243.131 351.640 332.709 1.604 638.672 ... 70.022 328.352 300.954 183.929 888.448 1343.424 215.372 54.186 249.916 29.01 12-09:00 20.90 84.640 1283.706 339.440 354.803 311.041 1.635 532.419 ... 65.561 332.924 307.626 145.299 832.906 1344.708 388.911 49.524 251.833 298 15.167 30.29 85.034 1278.345 12-10:00 24.98 15.167 368.564 357.723 321.387 1.635 520.365 ... 65.729 332.523 307.169 151.544 905.639 1344.469 418.979 48.135 251.614 30.47 299 357.438 323.757 553.070 ... 157.954 1344.588 462.712 251.197 300 12-11:00 21.00 15.167 88.013 1307.722 278.842 1.635 65.795 331.263 306.400 908.691 54.373 30.47 301 12-12:00 15.167 85.490 1255.986 273.484 361.365 322.689 1.635 590.199 71.456 333.032 308.732 174.069 986.206 1348.747 457.313 53.194 251.324 21.40 30.46 31-05:00 14.308 251.120 351.263 332.485 1.522 631.514 ... 328.699 180.229 903.605 1323.082 232.729 54.503 250.084 307 20.89 94.172 1327.832 71.286 300.706 30.46 301 rows × 23 columns In [13]: # filling null values with yhe next value data4 = data.fillna(method='bfill') data4 C:\Users\pc\AppData\Local\Temp\ipykernel_10944\2093606054.py:2: FutureWarning: DataFrame.fillna with 'method' is deprecated and will raise in a future version. Use obj.ffill() or obj.bfill() instead. data4 = data.fillna(method='bfill') Out[13]: T-T-WhiteFlow-SteamFlow-Upper-ChipMass-SteamHeatF-T-Top-SulphidityL-Lower-Observation ChipRate BlowFlow ChipLevel4 upperExtlowerExt- UCZAA WeakLiquorF WeakWashF **CMratio** 4 HeatT-3 Chips-4 HeatT-3 3 2 2 31-00:00 23.10 16.520 121.717 1177.607 169.805 358.282 329.545 1.443 599.253 67.122 329.432 303.099 175.964 1127.197 1319.039 257.325 54.612 252.077 29.11 0 31-01:00 27.60 16.810 79.022 1328.360 341.327 351.050 329.067 1.549 537.201 ... 60.012 330.823 304.879 163.202 665.975 1297.317 241.182 46.603 251.406 29.11 16.709 31-02:00 79.562 1329.407 239.161 350.022 329.260 1.600 549.611 .. 61.304 329.140 303.383 164.013 677.534 1327.072 237.272 51.795 251.335 29.02 2 23.19 81.011 1334.877 31-03:00 23.60 16.478 213.527 350.938 331.142 1.604 623.362 ... 68.496 328.875 302.254 181.487 767.853 1324.461 239.478 54.846 250.312 29.02 638.672 ... 31-04:00 15.618 93.244 1334.168 243.131 351.640 332.709 1.436 70.022 328.352 300.954 183.929 888.448 1343.424 215.372 249.916 29.01 4 22.90 54.186 84.640 1283.706 339.440 354.803 311.041 532.419 ... 65.561 332.924 307.626 145.299 1344.708 49.524 251.833 30.29 298 12-09:00 20.90 15.167 1.635 832.906 388.911 299 12-10:00 24.98 14.308 85.034 1278.345 368.564 357.723 321.387 1.522 520.365 ... 65.729 332.523 307.169 151.544 905.639 1344.469 418.979 48.135 251.614 30.47 300 12-11:00 21.00 14.308 88.013 1307.722 278.842 357.438 323.757 1.522 553.070 ... 65.795 331.263 306.400 157.954 908.691 1344.588 462.712 54.373 251.197 30.46 1348.747 301 12-12:00 21.40 14.308 85.490 1255.986 273.484 361.365 322.689 1.522 590.199 ... 71.456 333.032 308.732 174.069 986.206 457.313 53.194 251.324 30.46 307 31-05:00 20.89 14.308 94.172 1327.832 251.120 351.263 332.485 1.522 631.514 ... 71.286 328.699 300.706 180.229 903.605 1323.082 232.729 54.503 250.084 NaN 301 rows × 23 columns In [14]: import numpy as np import matplotlib.pyplot as plt from scipy import stats In [15]: # detect the outliers using IQR data2.columns Out[15]: Index(['Observation', 'Y-Kappa', 'ChipRate', 'BF-CMratio', 'BlowFlow', 'ChipLevel4 ', 'T-upperExt-2 ', 'T-lowerExt-2 ', 'UCZAA', 'WhiteFlow-4', 'AAWhiteSt-4', 'AA-Wood-4', 'ChipMoisture-4', 'SteamFlow-4', 'Lower-HeatT-3', 'Upper-HeatT-3', 'ChipMass-4', 'WeakLiquorF ', 'BlackFlow-2 ', 'WeakWashF ', 'SteamHeatF-3 ', 'T-Top-Chips-4', 'SulphidityL-4'], dtype='object') In [16]: data2.drop(['Observation'], axis=1, inplace=True) data2.columns Out[16]: Index(['Y-Kappa', 'ChipRate', 'BF-CMratio', 'BlowFlow', 'ChipLevel4', 'T-upperExt-2 ', 'T-lowerExt-2 ', 'UCZAA', 'WhiteFlow-4 ', 'AAWhiteSt-4', 'AA-Wood-4', 'ChipMoisture-4', 'SteamFlow-4', 'Lower-HeatT-3', 'Upper-HeatT-3', 'ChipMass-4', 'WeakLiquorF', 'BlackFlow-2', 'WeakWashF', 'SteamHeatF-3', 'T-Top-Chips-4', 'SulphidityL-4 '], dtype='object') In [17]: Q1 = data2.quantile(0.25) Q3 = data2.quantile(0.75)IQR = Q3-Q1print(IQR) Y-Kappa 4.550 2.233 ChipRate BF-CMratio 10.912 BlowFlow 96.766 105.868 ChipLevel4 T-upperExt-2 11.994 T-lowerExt-2 7.609 0.152 UCZAA WhiteFlow-4 100.098 AAWhiteSt-4 6.143 AA-Wood-4 1.486 2.186 ChipMoisture-4 SteamFlow-4 8.840 8.585 Lower-HeatT-3 Upper-HeatT-3 7.852 ChipMass-4 19.347 WeakLiquorF 180.613 BlackFlow-2 280.829 WeakWashF 267.219 6.903 SteamHeatF-3 T-Top-Chips-4 2.044 SulphidityL-4 30.420 dtype: float64 In [18]: $data2 = data2[\sim((data2<(Q1-1.5*IQR)))|(data2>(Q3+1.5*IQR))).any(axis=1)]$ Out[18]: Y-ChipRate T- UCZAA WhiteFlow- AAWhiteSt-T-Top- SulphidityL-SteamFlow-SteamHeatF-Upper- ChipMass-BlackFlow-Lower-BlowFlow ChipLevel4 WeakWashF WeakLiquorF 4 ... upperExt-2 lowerExt-2 HeatT-3 HeatT-3 Chips-4 329.067 6.076 ... 16.810 79.022 1328.360 341.327 351.050 1.549 537.201 60.012 330.823 304.879 163.202 665.975 1297.317 241.182 46.603 251.406 29.11 1 27.60 **2** 23.19 16.709 79.562 1329.407 239.161 350.022 329.260 1.600 549.611 0.000 ... 61.304 329.140 303.383 164.013 677.534 1327.072 237.272 51.795 251.335 0.00 **3** 23.60 16.478 81.011 1334.877 213.527 350.938 331.142 1.604 623.362 6.054 ... 68.496 328.875 302.254 181.487 767.853 1324.461 239.478 54.846 250.312 29.02 **5** 14.23 15.350 85.518 1171.604 198.538 344.014 325.195 1.436 628.245 6.020 ... 65.225 322.103 298.517 165.814 826.243 907.641 595.875 52.807 249.580 30.34 0.000 ... 6 13.49 13.700 98.186 1243.688 116.275 346.208 326.982 1.434 696.766 72.989 322.982 296.080 182.018 784.281 929.527 201.272 58.118 248.741 0.00 276 22.70 15.517 83.008 1288.010 306.886 350.155 322.485 1.590 568.752 6.170 ... 67.678 331.854 309.346 160.061 910.013 1381.389 441.934 51.466 252.216 29.59 296 20.50 13.358 97.662 1304.597 377.678 347.672 313.147 1.546 496.460 6.340 ... 60.119 332.615 308.575 141.076 997.904 1334.703 389.497 46.206 252.423 30.43 0.000 ... 297 20.40 14.233 89.790 1278.006 379.458 354.290 315.558 1.515 491.374 60.424 331.980 308.078 140.301 975.016 1344.835 388.676 47.803 252.311 0.00 298 20.90 15.167 84.640 1283.706 339.440 354.803 311.041 1.635 532.419 6.340 ... 65.561 332.924 307.626 145.299 832.906 1344.708 388.911 49.524 251.833 30.29 0.000 ... **307** 20.89 14.308 94.172 1327.832 251.120 351.263 332.485 1.522 631.514 71.286 328.699 300.706 180.229 903.605 1323.082 232.729 54.503 250.084 0.00 226 rows × 22 columns In [19]: data2.describe() Out[19]: T-upperExt- T-lowerExt-WhiteFlow- AAWhiteSt-SteamFlow-ChipMass-SteamHeatF-Lower-Upper-BlowFlow ChipLevel4 **UCZAA** ChipRate BF-CMratio WeakLiquorF BlackFlow-2 WeakWashF HeatT-3 HeatT-3 count 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 ... 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 226.000000 226 226.000000 20.690487 85.882181 1255.288916 264.664912 356.861681 325.341124 1.487146 603.242482 3.098164 67.545478 324.752212 299.655420 164.220102 874.123035 1149.895257 273.739403 49.810239 251 14.673491 2.982916 7.033155 7.466897 5.557537 0.108054 61.052197 4.914301 4.383788 11.423269 120.259977 150.321416 163.452307 4.143153 1 std 1.297369 47.896055 74.345135 3.078138 4.526481 0.000000 10.833000 68.645000 1084.083000 61.783000 340.222000 310.421000 52.962000 318.051000 293.312000 133.878000 596.446000 12.480000 1.182000 468.841000 0.000000 838.948000 38.283000 248 18.457500 13.850000 80.984000 1221.926000 220.356000 350.704250 322.355500 1.429000 549.611000 63.954000 321.179500 296.338500 156.091000 784.366750 1014.977000 149.331750 46.639750 250 25% 0.000000 20.775000 68.147000 322.380000 297.636500 164.333000 50.128500 251 14.729000 84.967000 1280.291500 270.965000 357.560500 326.508500 1.492000 602.508000 5.904500 866.170000 1126.513500 283.079500 50% 75% 23.010000 15.708000 91.178750 1289.254000 322.492000 361.555000 329.264500 1.556000 653.358500 6.140000 71.760750 329.575000 303.777000 172.555000 968.683250 1302.847000 414.599750 52.889250 252 27.600000 16.958000 108.104000 1351.240000 419.014000 375.047000 337.012000 1.712000 731.394000 6.340000 75.974000 333.223000 309.854000 189.268000 1132.181000 1392.868000 715.715000 59.564000 254 8 rows × 22 columns