

The screenshot displays a Jupyter Notebook interface with a browser window at the top. The notebook is titled "main project" and shows the last checkpoint 43 minutes ago. The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running code, and other functions. The main area contains a code cell with the following input:

```
In [4]: dataset_test=pd.read_csv('PM_test.txt',sep=' ',header=None).drop([26,27],axis=1)
dataset_test.column=col_names
#dataset_test.head()
print('Shape of Test dataset:',dataset_train.shape)
dataset_train.head()
```

The output of the code cell is displayed below the input:

```
Shape of Test dataset: (20631, 26)

C:\Users\822619106306\AppData\Local\Temp\ipykernel_13276\4025077099.py:2: UserWarning: Pandas doesn't allow columns to be created via a new attribute name - see https://pandas.pydata.org/pandas-docs/stable/indexing.html#attribute-access
  dataset_test.column=col_names
```

The output is followed by a table of data with 26 columns and 5 rows. The columns are labeled: id, cycle, setting1, setting2, setting3, s1, s2, s3, s4, s5, ..., s12, s13, s14, s15, s16, s17, s18, s19, s20, s21. The data is as follows:

	id	cycle	setting1	setting2	setting3	s1	s2	s3	s4	s5	...	s12	s13	s14	s15	s16	s17	s18	s19	s20	s21
0	1	1	-0.0007	-0.0004	100.0	518.67	641.82	1589.70	1400.60	14.62	...	521.66	2388.02	8138.62	8.4195	0.03	392	2388	100.0	39.06	23.4190
1	1	2	0.0019	-0.0003	100.0	518.67	642.15	1591.82	1403.14	14.62	...	522.28	2388.07	8131.49	8.4318	0.03	392	2388	100.0	39.00	23.4236
2	1	3	-0.0043	0.0003	100.0	518.67	642.35	1587.99	1404.20	14.62	...	522.42	2388.03	8133.23	8.4178	0.03	390	2388	100.0	38.95	23.3442
3	1	4	0.0007	0.0000	100.0	518.67	642.35	1582.79	1401.87	14.62	...	522.86	2388.08	8133.83	8.3682	0.03	392	2388	100.0	38.88	23.3739
4	1	5	-0.0019	-0.0002	100.0	518.67	642.37	1582.85	1406.22	14.62	...	522.19	2388.04	8133.80	8.4294	0.03	393	2388	100.0	38.90	23.4044

Below the table, it says "5 rows x 26 columns".

The code cell is followed by another code cell with the following input:

```
In [5]: pm_truth=pd.read_csv('PM_test.txt',sep=' ',header=None).drop([26,27],axis=1)
pm_truth.column=['more']
pm_truth['id']=pm_truth.index+1
pm_truth.head()
```

The output of the code cell is displayed below the input:

```
Shape of Test dataset: (20631, 26)

C:\Users\822619106306\AppData\Local\Temp\ipykernel_13276\3434560328.py:2: UserWarning: Pandas doesn't allow columns to be created via a new attribute name - see https://pandas.pydata.org/pandas-docs/stable/indexing.html#attribute-access
  pm_truth.column=['more']
```

Desktop/Aircraft engine/ x Desktop/Aircraft engine/ x main project - Jupyter Noteb... x "[more]" not found in axis" x web scraping - NameError: n... x

localhost:8852/notebooks/Desktop/Aircraft%20engine/main%20project.ipynb

jupyter main project Last Checkpoint: 44 minutes ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipykernel)

```
1 1 2 -0.0027 -0.0003 100.0 518.67 641.71 1588.45 1395.42 14.62 ... 2388.06 8139.62 8.3803 0.03 393 2388 100.0 39.02 23.3916 2
2 1 3 0.0003 0.0001 100.0 518.67 642.46 1586.94 1401.34 14.62 ... 2388.03 8130.10 8.4441 0.03 393 2388 100.0 39.08 23.4166 3
3 1 4 0.0042 0.0000 100.0 518.67 642.44 1584.12 1406.42 14.62 ... 2388.05 8132.90 8.3917 0.03 391 2388 100.0 39.00 23.3737 4
4 1 5 0.0014 0.0000 100.0 518.67 642.51 1587.19 1401.92 14.62 ... 2388.03 8129.54 8.4031 0.03 390 2388 100.0 38.99 23.4130 5
```

5 rows x 27 columns

```
In [8]: dataset_train['tff'] = dataset_train.groupby(['id'])['cycle'].transform(max) - dataset_train['cycle']
dataset_train.head()
```

```
Out[8]:
```

	id	cycle	setting1	setting2	setting3	s1	s2	s3	s4	s5	...	s13	s14	s15	s16	s17	s18	s19	s20	s21	tff
0	1	1	-0.0007	-0.0004	100.0	518.67	641.82	1589.70	1400.60	14.62	...	2388.02	8138.62	8.4195	0.03	392	2388	100.0	39.06	23.4190	191
1	1	2	0.0019	-0.0003	100.0	518.67	642.15	1591.82	1403.14	14.62	...	2388.07	8131.49	8.4318	0.03	392	2388	100.0	39.00	23.4236	190
2	1	3	-0.0043	0.0003	100.0	518.67	642.35	1587.99	1404.20	14.62	...	2388.03	8133.23	8.4178	0.03	390	2388	100.0	38.95	23.3442	189
3	1	4	0.0007	0.0000	100.0	518.67	642.35	1582.79	1401.87	14.62	...	2388.08	8133.83	8.3682	0.03	392	2388	100.0	38.88	23.3739	188
4	1	5	-0.0019	-0.0002	100.0	518.67	642.37	1582.85	1406.22	14.62	...	2388.04	8133.80	8.4294	0.03	393	2388	100.0	38.90	23.4044	187

5 rows x 27 columns

```
In [16]: x_train = df_train.iloc[:, :-1].values
y_train = df_train.iloc[:, -1].values
```

```
In [ ]:
```

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Desktop/Aircraft engine/ x Desktop/Aircraft engine/ x main project - Jupyter Noteb... x "[more]" not found in axis" x web scraping - NameError: n... x

localhost:8852/notebooks/Desktop/Aircraft%20engine/main%20project.ipynb

jupyter main project Last Checkpoint: 41 minutes ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipykernel)

```
In [1]: import pandas as pd
import numpy as np
from sklearn.preprocessing import MinMaxScaler
from sklearn.metrics import confusion_matrix, accuracy_score
```

```
In [2]: import matplotlib.pyplot as plt
plt.style.use('ggplot')
%matplotlib inline
```

```
In [3]: dataset_train = pd.read_csv('PM_train.txt', sep=' ', header=None).drop([26, 27], axis=1)
col_names = ['id', 'cycle', 'setting1', 'setting2', 'setting3', 's1', 's2', 's3', 's4', 's5', 's6', 's7', 's8', 's9', 's10', 's11', 's12', 's13', 's14', 's15', 's16', 's17', 's18', 's19', 's20', 's21']
dataset_train.columns = col_names
print('shape of train dataset:', dataset_train.shape)
dataset_train.head()
```

```
shape of train dataset: (20631, 26)
```

```
Out[3]:
```

	id	cycle	setting1	setting2	setting3	s1	s2	s3	s4	s5	...	s12	s13	s14	s15	s16	s17	s18	s19	s20	s21
0	1	1	-0.0007	-0.0004	100.0	518.67	641.82	1589.70	1400.60	14.62	...	521.66	2388.02	8138.62	8.4195	0.03	392	2388	100.0	39.06	23.4190
1	1	2	0.0019	-0.0003	100.0	518.67	642.15	1591.82	1403.14	14.62	...	522.28	2388.07	8131.49	8.4318	0.03	392	2388	100.0	39.00	23.4236
2	1	3	-0.0043	0.0003	100.0	518.67	642.35	1587.99	1404.20	14.62	...	522.42	2388.03	8133.23	8.4178	0.03	390	2388	100.0	38.95	23.3442
3	1	4	0.0007	0.0000	100.0	518.67	642.35	1582.79	1401.87	14.62	...	522.86	2388.08	8133.83	8.3682	0.03	392	2388	100.0	38.88	23.3739
4	1	5	-0.0019	-0.0002	100.0	518.67	642.37	1582.85	1406.22	14.62	...	522.19	2388.04	8133.80	8.4294	0.03	393	2388	100.0	38.90	23.4044

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