

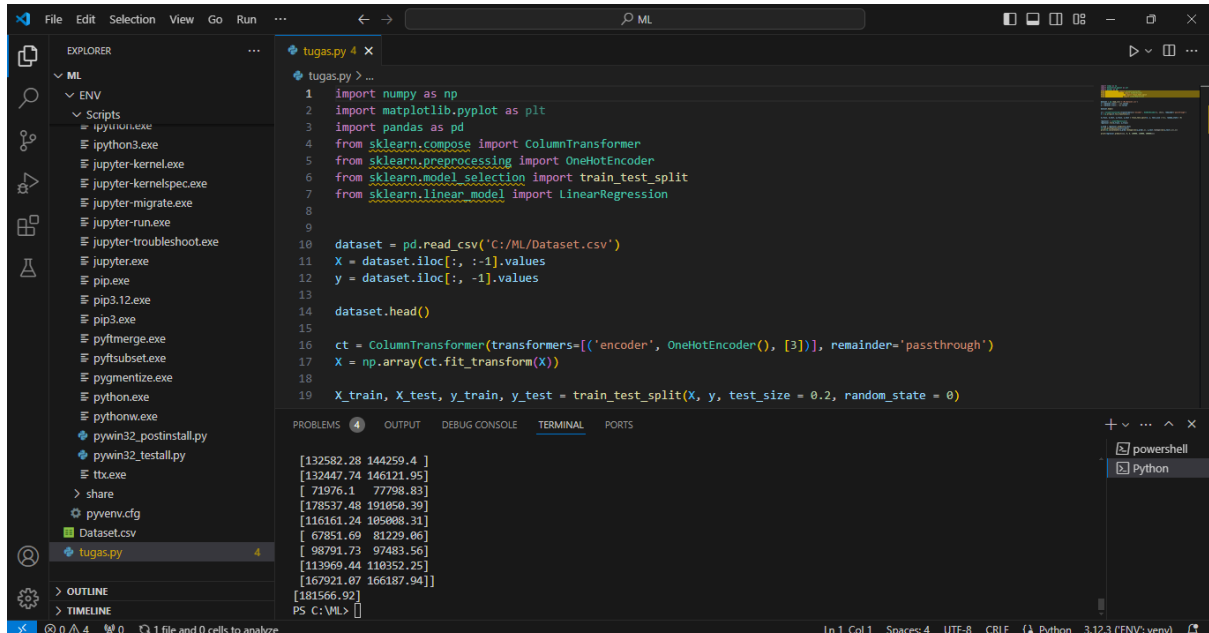
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Matkul: Machine Learning

Tugas Machine Learning 9 – 10

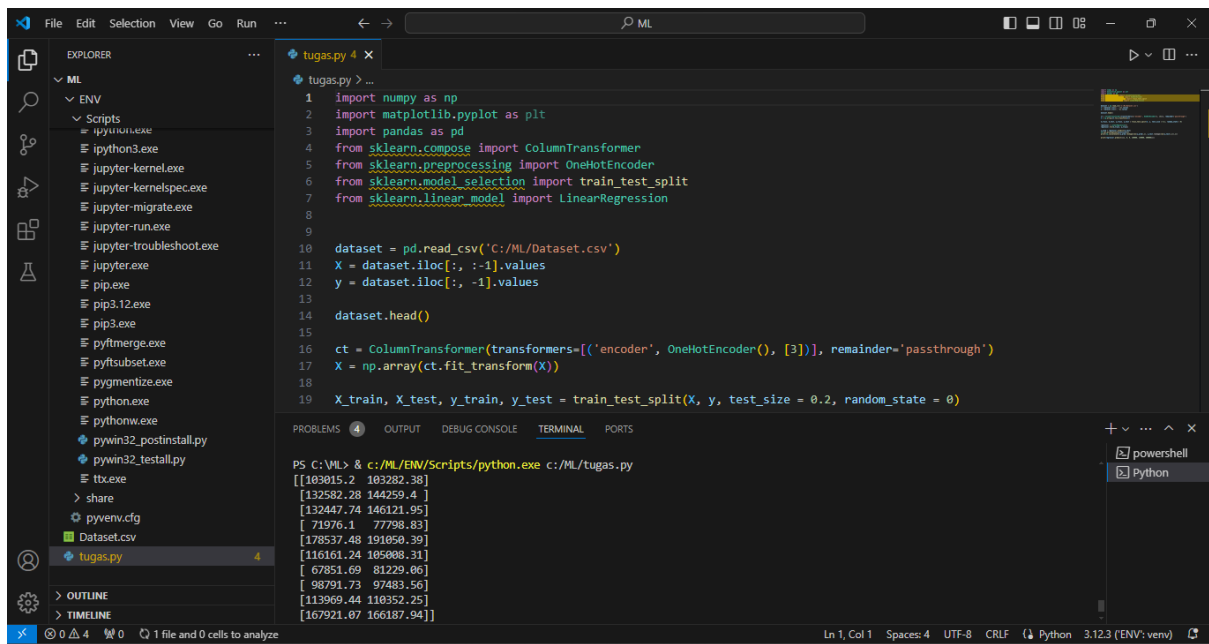
Link Github: <https://github.com/rulrmdn/tugas4machinelearning>



```
1 import numpy as np
2 import matplotlib.pyplot as plt
3 import pandas as pd
4 from sklearn.compose import ColumnTransformer
5 from sklearn.preprocessing import OneHotEncoder
6 from sklearn.model_selection import train_test_split
7 from sklearn.linear_model import LinearRegression
8
9
10 dataset = pd.read_csv('C:/ML/Dataset.csv')
11 X = dataset.iloc[:, :-1].values
12 y = dataset.iloc[:, -1].values
13
14 dataset.head()
15
16 ct = ColumnTransformer(transformers=[('encoder', OneHotEncoder(), [3])], remainder='passthrough')
17 X = np.array(ct.fit_transform(X))
18
19 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 0)
```

Terminal output:

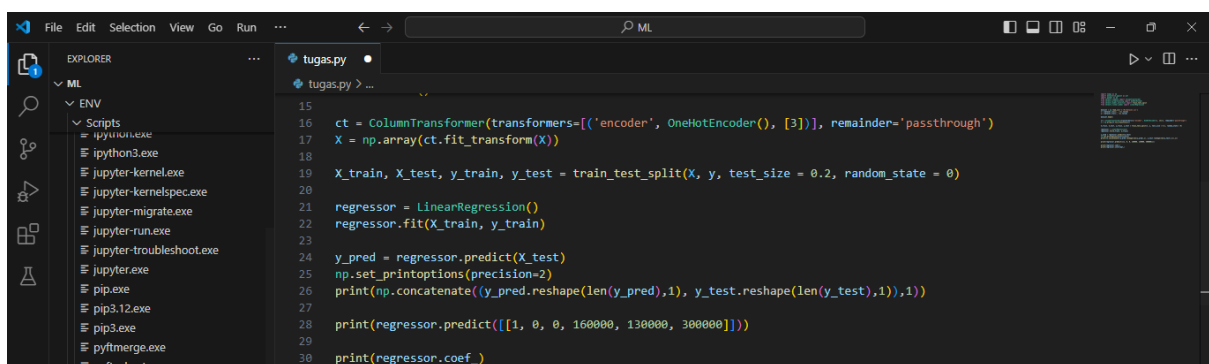
```
[132582.28 144259.4 ]
[132447.74 146121.95]
[ 71976.1  77798.83]
[178537.48 191050.39]
[116161.24 105008.31]
[ 67851.69  81229.06]
[ 98791.73  97483.56]
[113969.44 110352.25]
[167921.07 166187.94]]
[161566.92]
PS C:\VLM>
```



```
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18
19 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 0)
20
21 regressor = LinearRegression()
22 regressor.fit(X_train, y_train)
23
24 y_pred = regressor.predict(X_test)
25 np.set_printoptions(precision=2)
26 print(np.concatenate((y_pred.reshape(len(y_pred),1), y_test.reshape(len(y_test),1)),1))
27
28 print(regressor.predict([[1, 0, 0, 160000, 130000, 300000]]))
29
30 print(regressor.coef_)
```

Terminal output:

```
PS C:\VLM> & c:/ML/ENV/Scripts/python.exe c:/ML/tugas.py
[[103015.2  103282.38]
[132582.28 144259.4 ]
[132447.74 146121.95]
[ 71976.1  77798.83]
[178537.48 191050.39]
[116161.24 105008.31]
[ 67851.69  81229.06]
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