

```
1  # -*- coding: utf-8 -*-
2  """
3  Created on Tue Aug  4 12:47:37 2020
4
5  @author: HETSHAH
6  """
7
8  from sklearn import datasets, linear_model
9  import pandas as pd
10 import matplotlib.pyplot as plt
11 import seaborn.apionly as sns
12
13 iris = sns.load_dataset('iris')
14 fit_data = iris[["petal_length", "petal_width"]].values
15 x_data = fit_data[:,0].reshape(-1,1)
16 y_data = fit_data[:,1].reshape(-1,1)
17
18 # Create linear regression object
19 regr = linear_model.LinearRegression()
20 # once the data is reshaped, running the fit is simple
21 regr.fit(x_data, y_data)
22
23 # we can then plot the data and out fit
24 axes = iris.plot(x="petal_length", y="petal_width", kind="
    scatter")
25 plt.plot(x_data, regr.predict(x_data), color='black',
    linewidth=3)
26 plt.show()
```