

Folder: Jupyter.pdf

Map1.PNG

```
1 import pandas as pd
2 import matplotlib.pyplot as plt
3 from scipy.stats import linregress
4
```

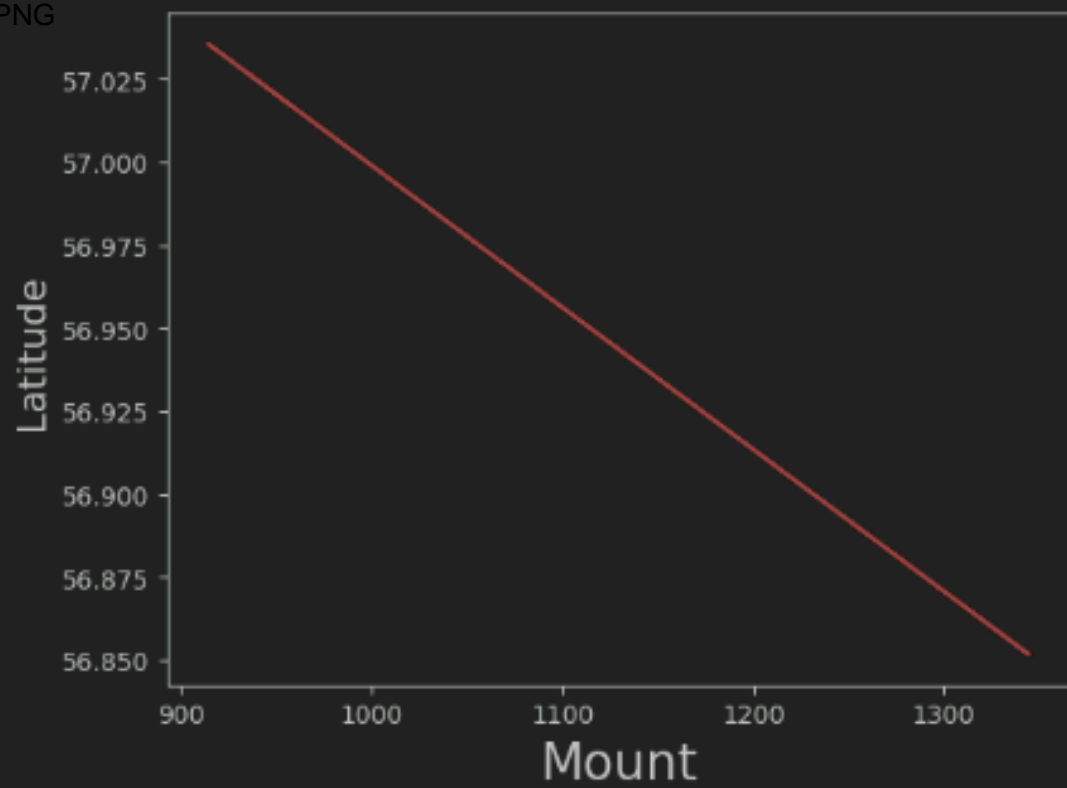
Executed at 2023.09.18 12:20:04 in 36ms

Map10.PNG

```
In 10 1 #plot the graph by adding labels to it
      2 ss=linregress(x,y)
      3 m= ss.slope
      4 b= ss.intercept
      5 plt.xlabel('Mount',fontsize=20)
      6 plt.ylabel('Latitude',fontsize=15)
      7 plt.plot(x, m*x + b, color='red')
      8 plt.show()
      9
```

Executed at 2023.09.18 12:30:20 in 872ms

Map11.PNG



In 6 Map2.PNG fh = pd.read_csv('scottish_hills.csv')

2 print(fh.head(5))

3

Executed at 2023.09.18 12:21:42 in 51ms

▼

	Hill Name	Height	Latitude	Longitude	Osgrid
0	A' Bhuidheanach Bheag	936.0	56.870342	-4.199001	NN660775
1	A' Chailleach	997.0	57.693800	-5.128715	NH136714
2	A' Chailleach	929.2	57.109564	-4.179285	NH681041
3	A' Chraileag (A' Chralaig)	1120.0	57.184186	-5.154837	NH094147
4	A' Ghlas-bheinn	918.0	57.255090	-5.303687	NH008231

```
In 4 1 sfh=fh.sort_values(by=['Height'], ascending=False)
      2 print(sfh.head(5))
      3
```

Executed at 2023.09.18 12:18:00 in 49ms

Map3.PNG

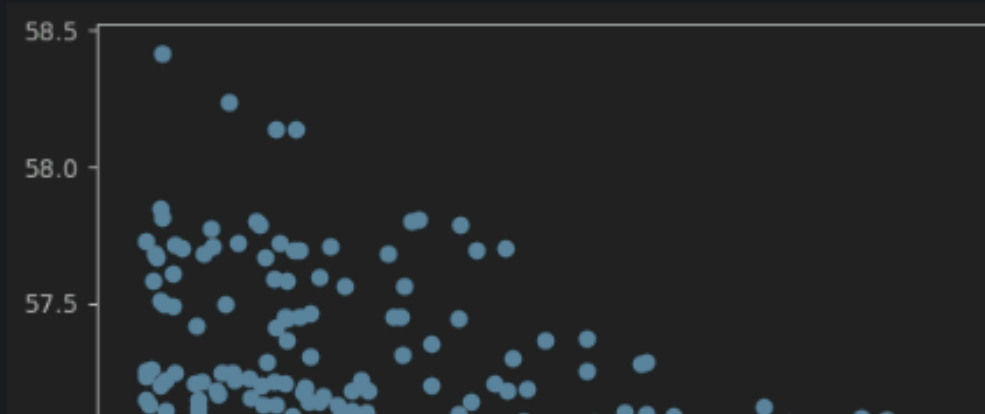
	Hill Name	Height	Latitude	Longitude	Osgrid
92	Ben Nevis	1344.5	56.796891	-5.003675	NN166712
88	Ben Macdui (Beinn Macduibh)	1309.0	57.070368	-3.669099	NN988989
104	Braeriach	1296.0	57.078298	-3.728389	NN953999
115	Cairn Toul	1291.0	57.054397	-3.710773	NN963972
212	Sgor an Lochain Uaine	1258.0	57.058369	-3.725797	NN954976

In 7 `1 #graphblock1 for creating first visualization of scatter plot`

```
2 x=fh.Height
3 y=fh.Latitude
4 plt.scatter(x,y)
5 plt.savefig('scatter_plot.png')
6 plt.show()
7
```

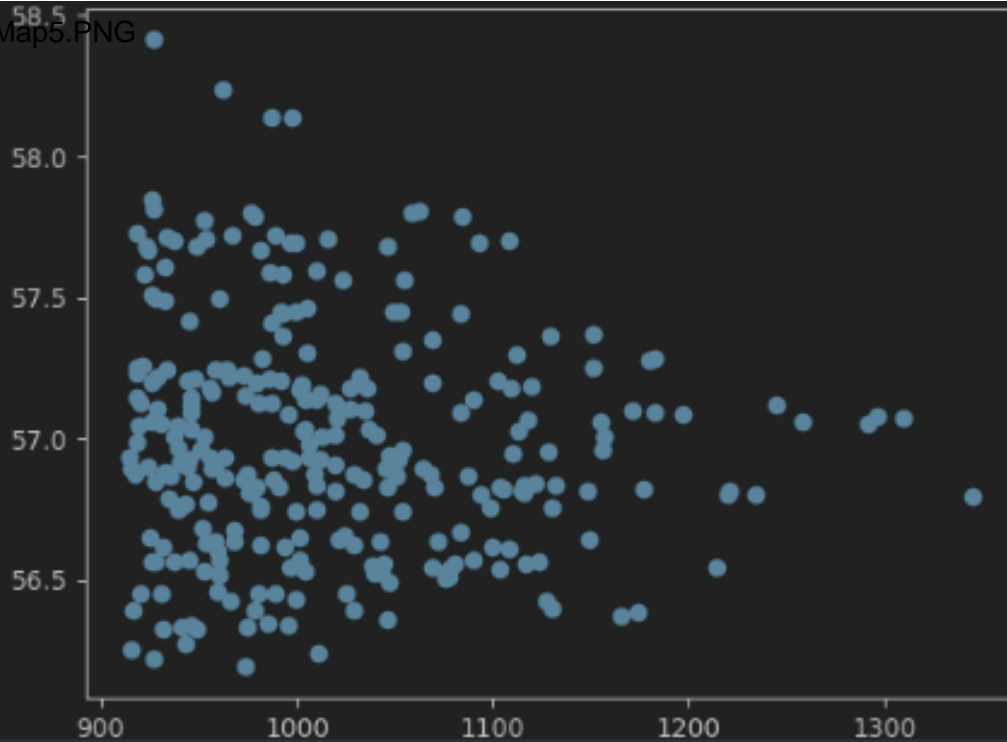
Executed at 2023.09.18 12:25:26 in 1s 23ms

▼





Map5.PNG



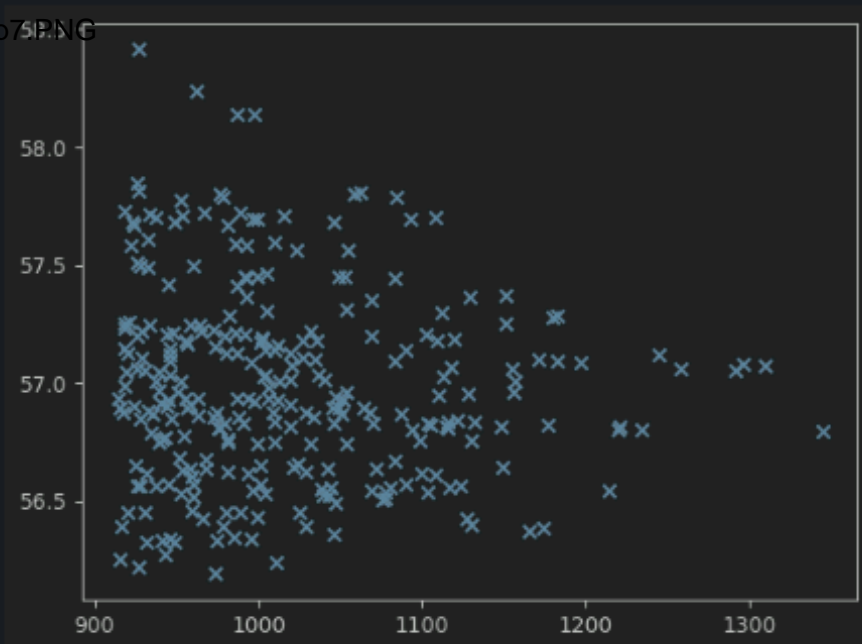
In [8]: 1 #graphblock2 Updating graph with a different marker sign

Map6.PNG

```
2 plt.scatter(x,y, marker='x')
3 plt.savefig('scatter_plot.png')
4 plt.show()
5
```

Executed at 2023.09.18 12:28:41 in 728ms

Map7.PNG



Map8.PNG

```
In [9]: 1 #graphblock3 add a red colored line to my graph
        2 ss=linregress(x,y)
        3 m= ss.slope
        4 b= ss.intercept
        5 plt.plot(x, m*x + b, color='red')
        6 plt.show()
        7
```

Executed at 2023.09.18 12:29:35 in 553ms

Map9.PNG

