

```
1 # === avgrain.ipynb ===
2
3 %matplotlib notebook
4 #%%
5 get_ipython().run_line_magic('matplotlib', 'notebook')
6
7
8 #%%
9 # Dependencies
10 import matplotlib.pyplot as plt
11 import numpy as np
12 import pandas as pd
13
14
15 #%%
16 # Load in csv
17 rain_df = pd.read_csv("../Resources/avg_rain_state.csv")
18 rain_df.head()
19
20
21 #%%
22 # Set x axis and tick locations
23 x_axis = np.arange(len(rain_df))
24 tick_locations = [value+0.4 for value in x_axis]
25
26
27 #%%
28 # Create a list indicating where to write x labels and set figure size to adjust for space
29 plt.figure(figsize=(20,3))
30 plt.bar(x_axis, rain_df["Inches"], color='r', alpha=0.5, align="edge")
31 plt.xticks(tick_locations, rain_df["State"], rotation="vertical")
32
33
34 #%%
35 # Set x and y limits
36 plt.xlim(-0.25, len(x_axis))
37 plt.ylim(0, max(rain_df["Inches"])+10)
38
39
40 #%%
41 # Set a Title and labels
42 plt.title("Average Rain per State")
43 plt.xlabel("State")
44 plt.ylabel("Average Amount of Rainfall in Inches")
45
46
47 #%%
48 # Save our graph and show the grap
49 plt.tight_layout()
50 plt.savefig("../Images/avg_state_rain.png")
51 plt.show()
52
53
54 #%%
```