```python
import pandas as pd
from datetime import datetime, timedelta
from matplotlib import pyplot as plt
from matplotlib import dates as mpl_dates

plt.style.use('seaborn')


data = pd.read_csv('data.csv')

data['Date'] = pd.to_datetime(data['Date'])
data.sort_values('Date', inplace=True)

price_date = data['Date']
price_close = data['Close']



plt.plot_date(price_date, price_close, linestyle='solid')

plt.gcf().autofmt_xdate()


plt.title('Bitcoin Prices')
plt.xlabel('Date')
plt.ylabel('Closing Price')

plt.tight_layout()

plt.show()
```
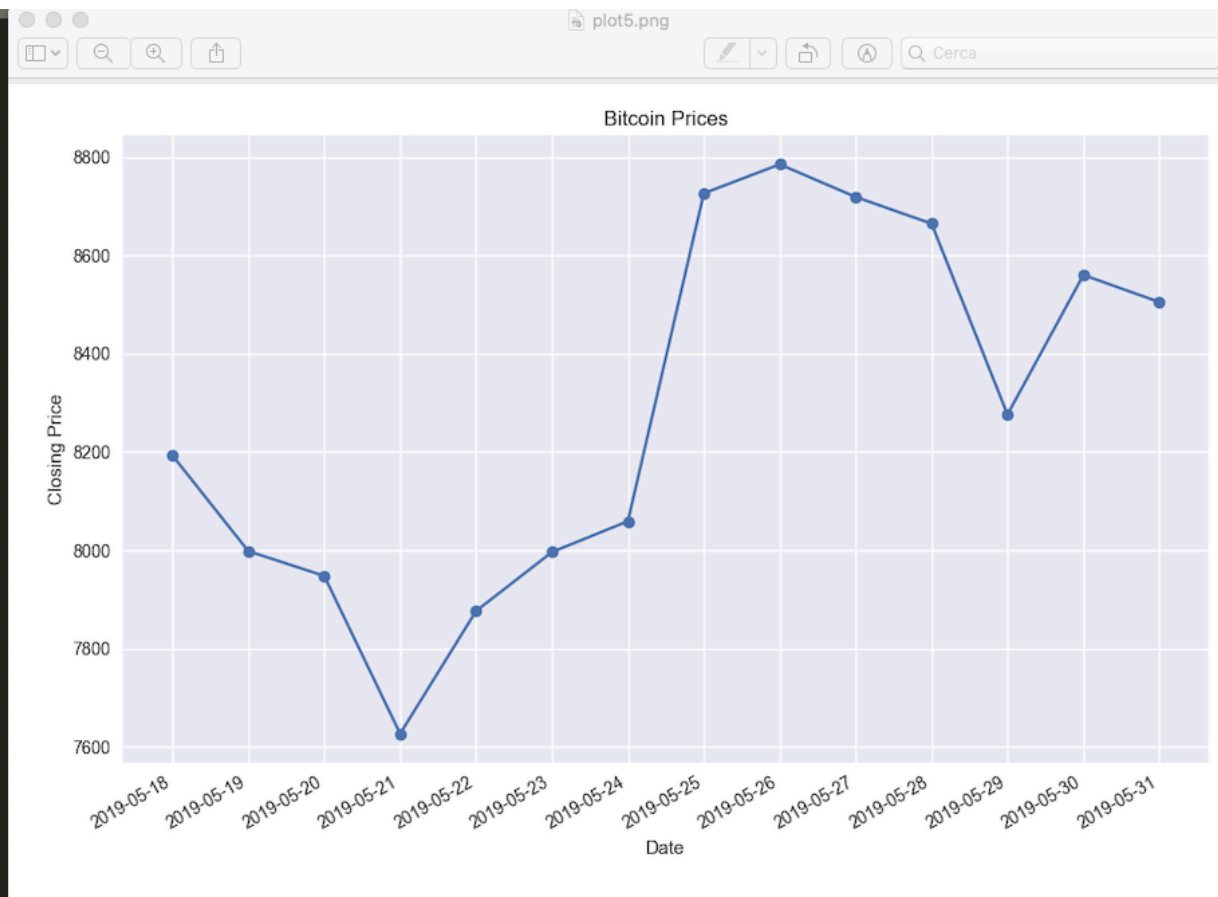
plot5.png

Bitcoin Prices

FEW EXAMPLES ON DATA VISUALIZATION EXERCISES

Line 1, Column 1   Tab Size: 4   Python

```python
import pandas as pd
from matplotlib import pyplot as plt

plt.style.use('fivethirtyeight')

data = pd.read_csv('data.csv')
ids = data['Responder_id']
ages = data['Age']

# Es. ages of people who responded to a survey, how to plot them in groups?
# Not bar plot, too many bars if es. 80 different age years)

bins = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

plt.hist(ages, bins=bins, edgecolor='black', log=True)


median_age = 29
color = '#fc4f30'

plt.axvline(median_age, color=color, label='Age Median', linewidth=2)

plt.legend()

plt.title('Ages of Respondents')
plt.xlabel('Ages')
plt.ylabel('Total Respondents')

plt.tight_layout()

plt.show()
```
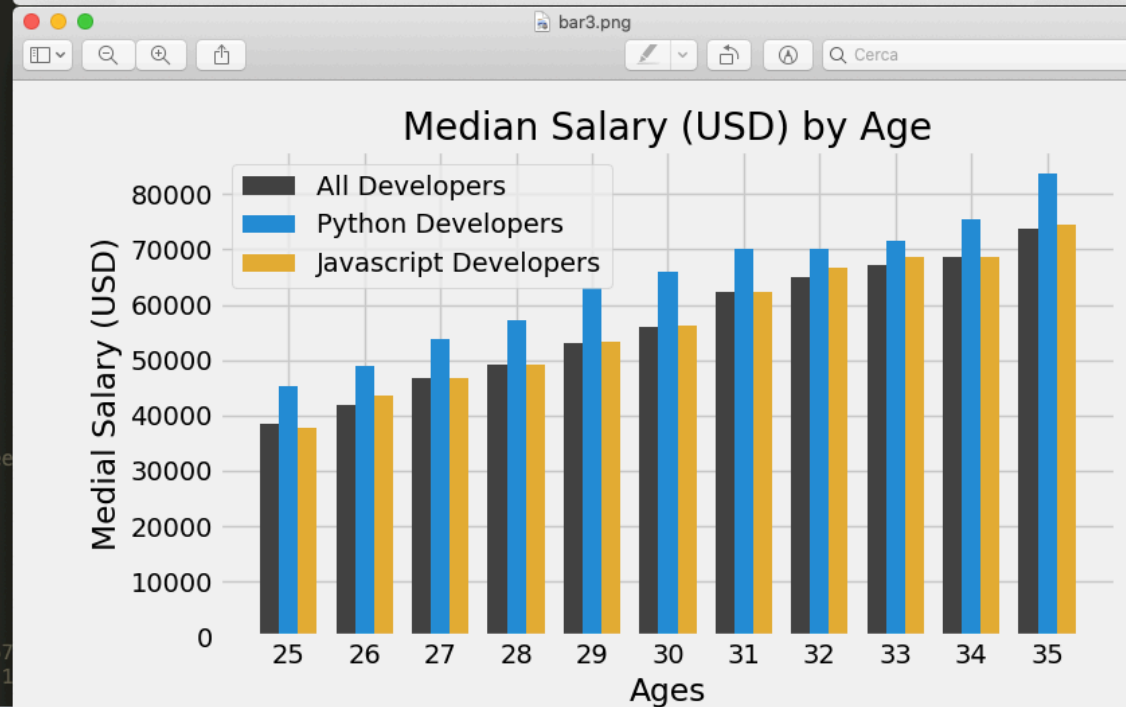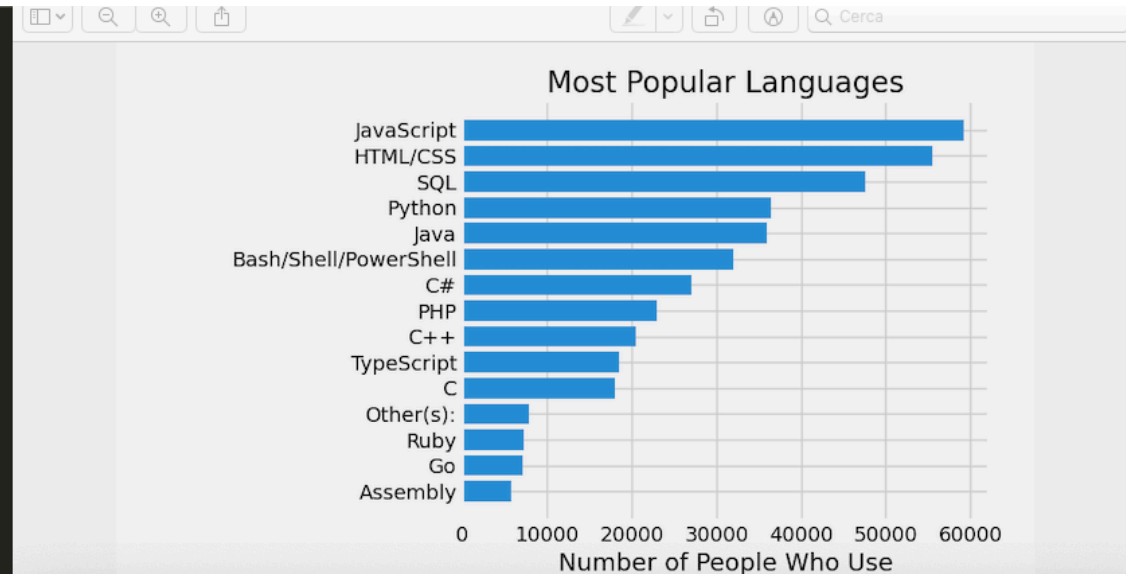
Line 1, Column 1
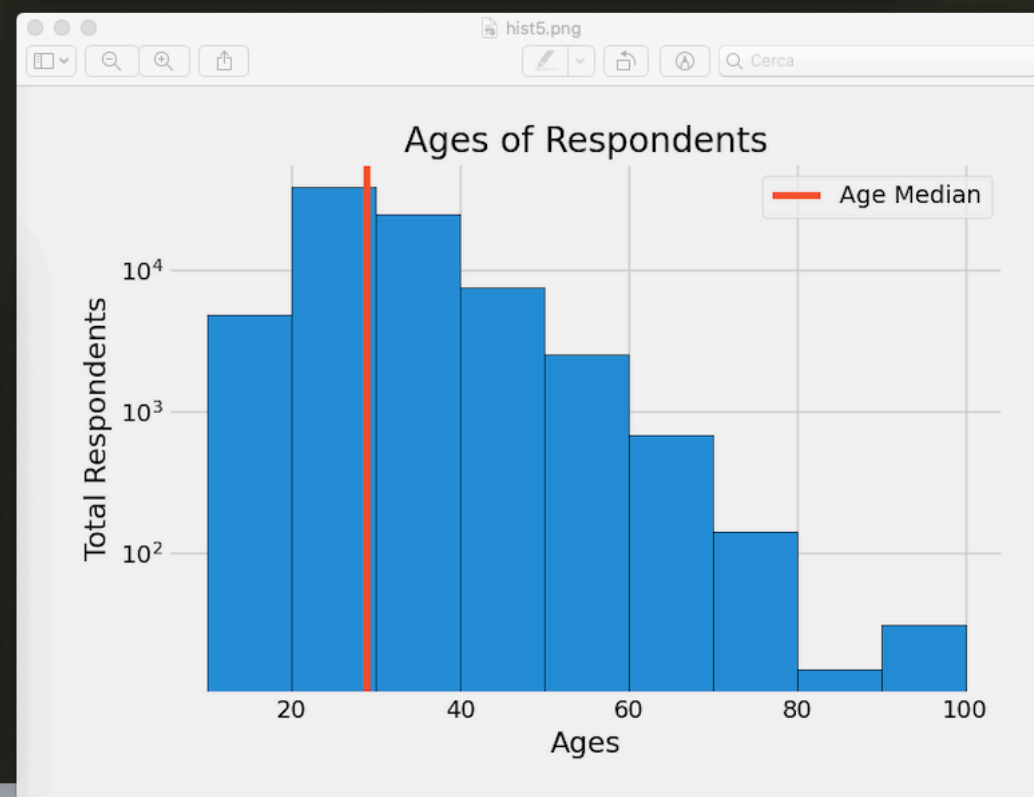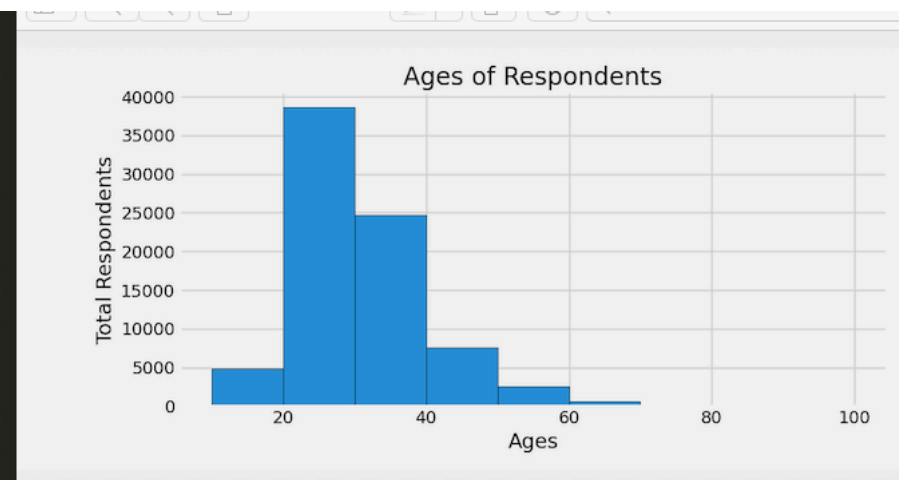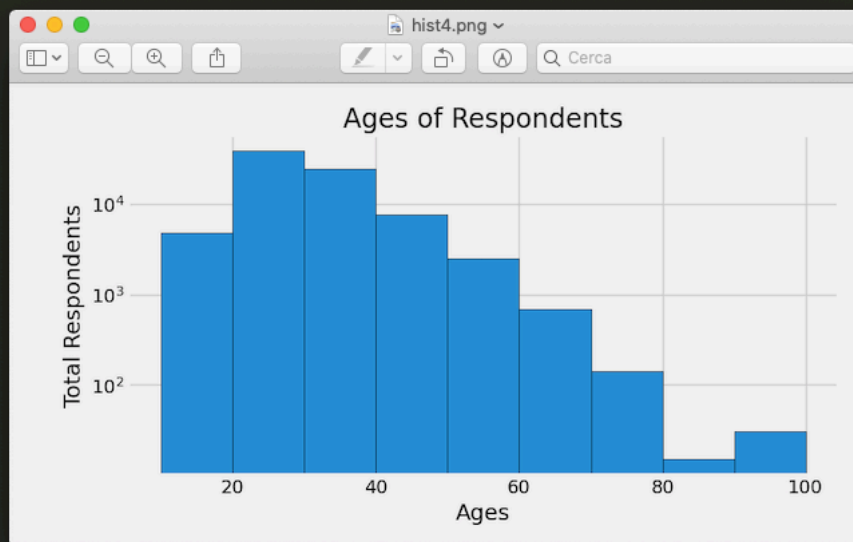
```python
import matplotlib
from matplotlib import pyplot as plt
import numpy as np
import csv
from collections import Counter
import pandas as pd

plt.style.use('fivethirtyeight')

data = pd.read_csv('data.csv')
ids = data['Responder_id']
lang_responses = data['LanguagesWorkedWith']


language_counter = Counter()

for response in lang_responses:
    language_counter.update(response.split(';'))


languages = []
popularity = []

for item in language_counter.most_common(15):
    languages.append(item[0])
    popularity.append(item[1])


languages.reverse()
popularity.reverse()
plt.barh(languages, popularity)



plt.title('Most Popular Languages')
#plt.ylabel('Programming Languages')
plt.xlabel('Number of People Who Use')



plt.tight_layout()

# Commented out because it automatically saves the plot too "thin" and you can't see
#plt.savefig('Plots_1/plot.png')

plt.show()

"""
# Median Python Developer Salaries by Age
py_dev_y = [20046, 17100, 20000, 24744, 30500, 37732, 41247, 45372, 48876, 53850, 57
           84392, 78254, 85000, 87038, 91991, 100000, 94796, 97962, 93302, 99240, 1
plt.plot(ages_x, py_dev_y, label='Python Developers')
```


Most Popular Languages

Median Salary (USD) by Age

```python
import pandas as pd
from matplotlib import pyplot as plt

plt.style.use('seaborn')


data = pd.read_csv('data.csv')
ages = data['Age']
dev_salaries = data['All_Devs']
py_salaries = data['Python']
js_salaries = data['JavaScript']

fig, (ax1, ax2) = plt.subplots(nrows=2, ncols=1, sharex=True)

# To create two figures
# fig1, ax1 = plt.subplots()
# fig2, ax2 = plt.subplots()


ax1.plot(ages, dev_salaries, color='#444444',
         linestyle='--', label='All Devs')

# Figure, axes. Subplots first create a figure (the "window that contains the plot or plots ), then axes (which instantiate us))
# fig, ax = plt.subplots()

ax2.plot(ages, py_salaries, label='Python')
ax2.plot(ages, js_salaries, label='JavaScript')


ax1.legend()
ax1.set_title('Median Salary (USD) by Age')
ax1.set_ylabel('Median Salary (USD)')

ax2.legend()
ax2.set_xlabel('Ages')
ax2.set_ylabel('Median Salary (USD)')

plt.tight_layout()

plt.show()

# To save the figures
# fig1.savefig('fig1.png')
# fig2.savefig('fig2.png')
```

Line 1, Column 1