

P9_2347116

September 20, 2023

```
[ ]: import pandas as pd
import matplotlib.pyplot as plt

books=pd.read_csv("./books_dataset.csv")
```

```
[ ]: books.head(10)
```

```
[ ]:                                     url \
0  http://www.amazon.com/How-Bartender-Bartending...
1  http://www.amazon.com/Raise-Bar-Action-Based-C...
2  http://www.amazon.com/The-Professional-Bartend...
3  http://www.amazon.com/Double-Your-Tips-Jerry-M...
4  http://www.amazon.com/The-Bartenders-Bible-Mix...
5  http://www.amazon.com/The-Fallen-Angel-Novel-G...
6  http://www.amazon.com/Bartenders-Black-Book-Up...
7  http://www.amazon.com/Justice-Denied-J-Beaumon...
8  http://www.amazon.com/The-Ultimate-Bar-Book-Co...
9  http://www.amazon.com/Running-Bar-For-Dummies-...
```

```
                                     title \
0  How to be a Bartender: Get a Bartending Job Wi...
1  Raise the Bar: An Action-Based Method for Maxi...
2  The Professional Bartender's Handbook: A Recip...
3      How to Double Your Tips [Kindle Edition]
4  The Bartender's Bible: 1001 Mixed Drinks [Kind...
5  The Fallen Angel: A Novel (Gabriel Allon) [Kin...
6  The Bartenders Black Book, Updated 9th Edition...
7  Justice Denied (J. P. Beaumont Novel) [Kindle ...
8  The Ultimate Bar Book: The Comprehensive Guide...
9      Running a Bar For Dummies [Kindle Edition]
```

```
                                     author  price  save  pages \
0                Dave Allred      9.99   NaN    171
1                Jon Taffer      2.00  24.00    258
2        Valerie Mellema      9.87  12.08    288
3            Jerry Minchey      2.99   NaN     36
4                Gary Regan      5.99   2.00    400
5            Daniel Silva      6.64   3.35    417
```

6	Stephen Kittredge Cunningham	5.99	6.96	288
7	J. A. Jance	3.79	6.20	448
8	Mittie Hellmich	8.63	11.32	476
9	Ray Foley	12.49	9.50	360

	description	book_size	size	\
0	In his revolutionary new book, Dave Allred (Th...	big	249	
1	If there's anyone who can prevent a bar or res...	big	1427	
2	The Professional Bartenders Handbook is writte...	small	5643	
3	How to Double Your Tips (For every waitress, w...	big	98	
4	Mix Drinks Like A Pro Now you can with this in...	big	647	
5	Art restorer, assassin, spy-Gabriel Allon retu...	big	634	
6	The newest and ninth edition to the Bartenders...	big	1163	
7	The murder of an ex-drug dealer ex-con-gunned ...	big	430	
8	Ultimate Bar Book is the first and only guide ...	big	2117	
9	Have you ever thought of owning your own bar? ...	medium	5446	

	publisher	language	text_to_speech	\
0	NaN	English	Enabled	
1	Amazon Publishing	English	Enabled	
2	Atlantic Publishing Group Inc.; illustrated ed...	English	Enabled	
3	Stony River Media	English	Enabled	
4	HarperCollins e-books	English	Enabled	
5	Harper	English	Enabled	
6	Wine Appreciation Guild; 9 edition	English	Enabled	
7	William Morrow; Reprint edition	English	Enabled	
8	Chronicle Books LLC	English	Enabled	
9	For Dummies; 1 edition	English	Enabled	

	x_ray	lending	customer_reviews	stars
0	Not Enabled	Enabled	23.0	4
1	Enabled	Enabled	80.0	4
2	Not Enabled	Not Enabled	32.0	4
3	Not Enabled	Enabled	6.0	4
4	Not Enabled	Not Enabled	59.0	3
5	Enabled	Not Enabled	1031.0	4
6	Not Enabled	Enabled	40.0	4
7	Enabled	Not Enabled	213.0	4
8	Enabled	Enabled	102.0	4
9	Not Enabled	Enabled	16.0	4

```
[ ]: books.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 199 entries, 0 to 198
Data columns (total 16 columns):
#   Column                Non-Null Count  Dtype
---  -
```

```

0    url                199 non-null    object
1    title              199 non-null    object
2    author             199 non-null    object
3    price              199 non-null    float64
4    save               185 non-null    float64
5    pages              199 non-null    int64
6    description        199 non-null    object
7    book_size          199 non-null    object
8    size               199 non-null    int64
9    publisher          187 non-null    object
10   language           199 non-null    object
11   text_to_speech     199 non-null    object
12   x_ray              199 non-null    object
13   lending            199 non-null    object
14   customer_reviews   198 non-null    float64
15   stars              199 non-null    int64

```

dtypes: float64(3), int64(3), object(10)

memory usage: 25.0+ KB

```
[ ]: books.shape
```

```
[ ]: (199, 16)
```

```
[ ]: books.describe()
```

```

[ ]:
      price      save      pages      size  customer_reviews \
count  199.000000  185.000000  199.000000  199.000000      198.000000
mean     7.287588   7.978108  327.984925  1611.894472     379.393939
std     4.533073   7.089678  156.606451  3457.478147     648.001587
min      0.000000   0.480000   15.000000    69.000000      1.000000
25%     4.700000   3.350000  218.000000   417.000000     45.250000
50%     6.640000   6.200000  352.000000   655.000000    142.000000
75%     9.195000  10.960000  417.000000  1314.000000    459.000000
max    39.840000  61.980000 1000.000000 26789.000000   6254.000000

```

```

      stars
count  199.000000
mean     3.829146
std     0.542120
min      0.000000
25%     4.000000
50%     4.000000
75%     4.000000
max      5.000000

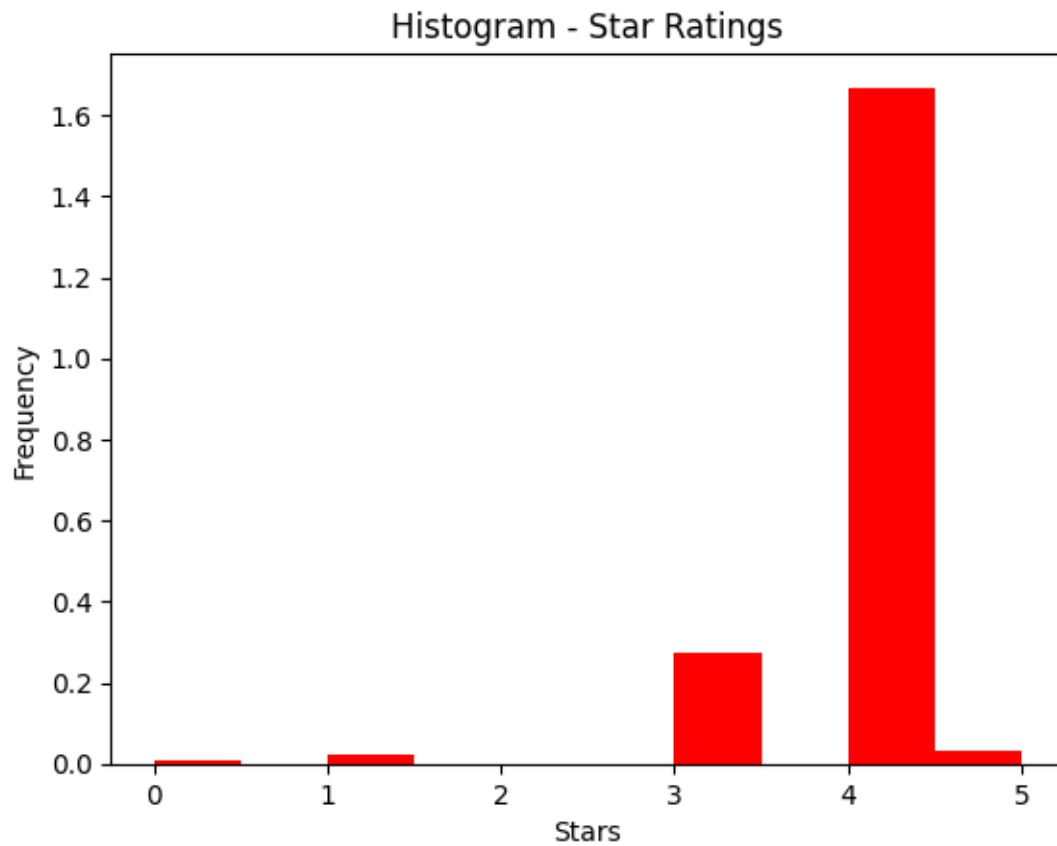
```

```

[ ]: books["stars"].plot(kind="hist", label="Publishers", color="r", fontsize=10,
    ↪ density=True)
plt.title("Histogram - Star Ratings")

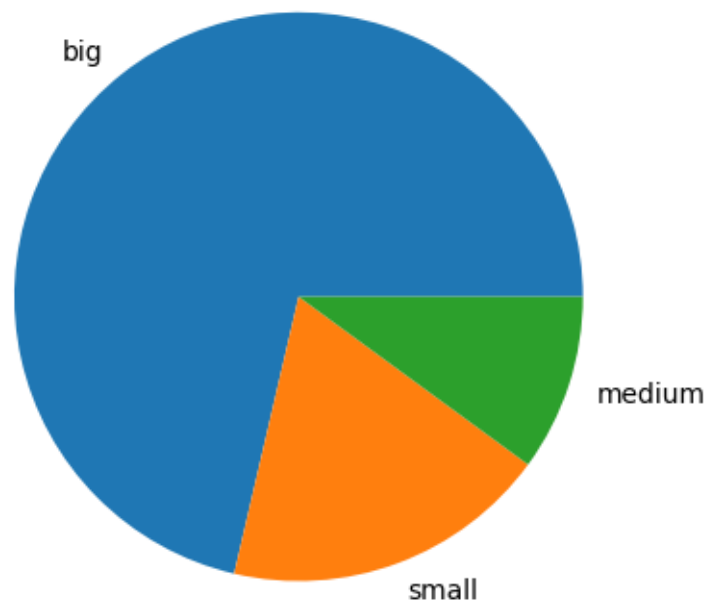
```

```
plt.xlabel("Stars")
plt.ylabel("Frequency")
plt.show()
```



```
[ ]: book_size=list(books['book_size'].unique())
book_size_count=(books['book_size'].value_counts())
plt.pie(book_size_count, labels=["big", "small", "medium"])
plt.title("Pie Chart - Book Sizes")
plt.xlabel("Sizes of books")
plt.show()
```

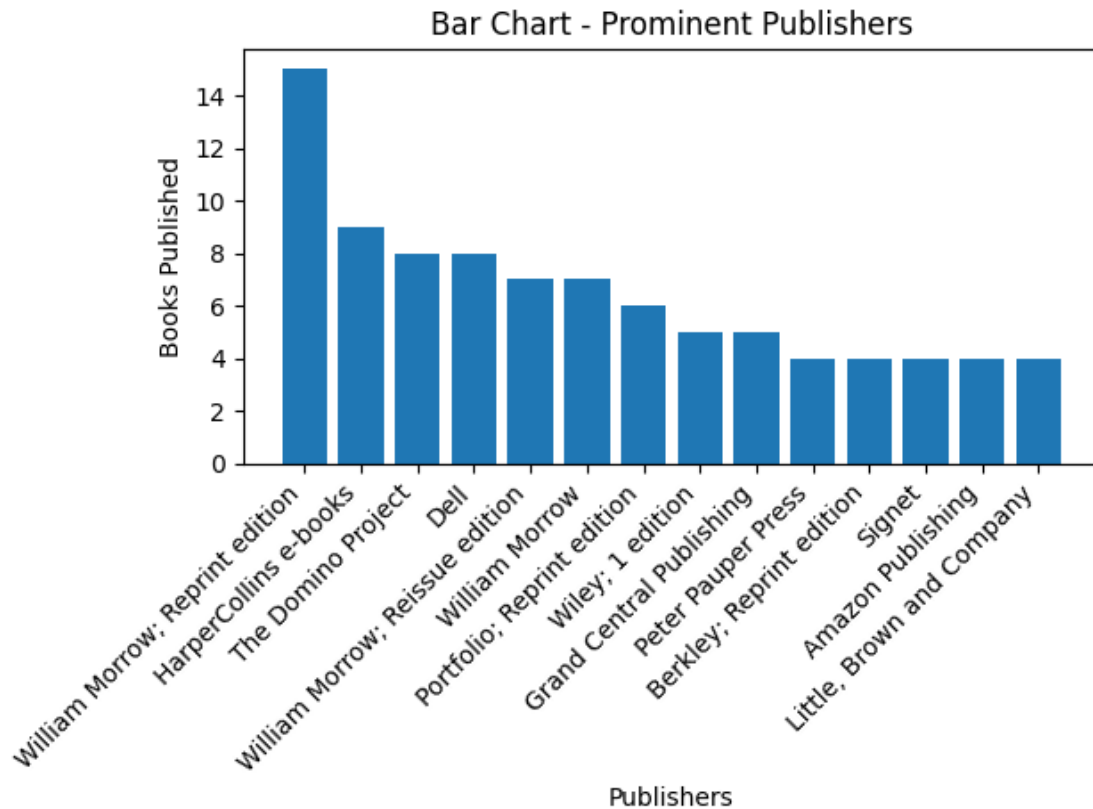
Pie Chart - Book Sizes



Sizes of books

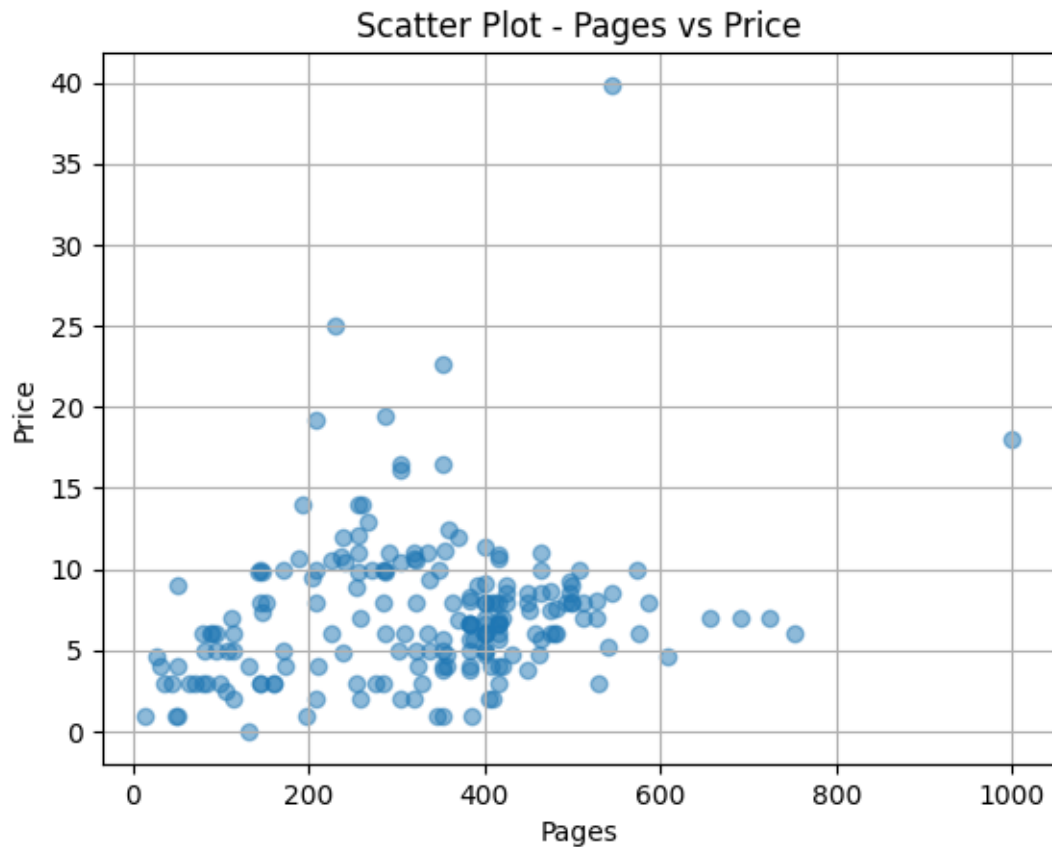
```
[ ]: publisher_counts = books['publisher'].value_counts()
publisher_counts_relevant = publisher_counts[publisher_counts > 3]
publishers = publisher_counts_relevant.index
count=publisher_counts_relevant.values

plt.bar(publishers, count)
plt.title("Bar Chart - Prominent Publishers")
plt.xlabel("Publishers")
plt.ylabel("Books Published")
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()
```



```
[ ]: pages=books['pages']
price=books['price']

plt.scatter(pages, price, alpha=0.5)
plt.title("Scatter Plot - Pages vs Price")
plt.xlabel("Pages")
plt.ylabel("Price")
plt.grid(True)
plt.show()
```

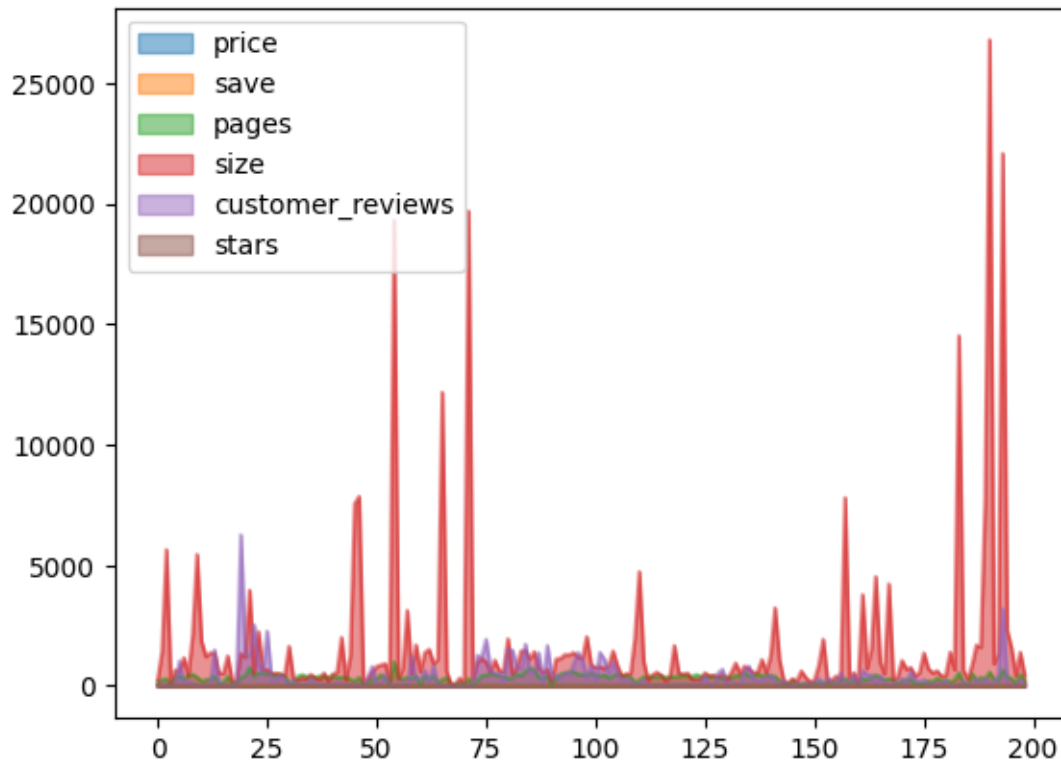


```
[ ]: publisher=books[books["publisher"] == "William Morrow; Reprint edition"]
prices=publisher["price"]

prices.plot(kind="line")
plt.title("Line Chart - Pricing of William Morrow; Reprint edition")
plt.ylabel("Price")
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()
```



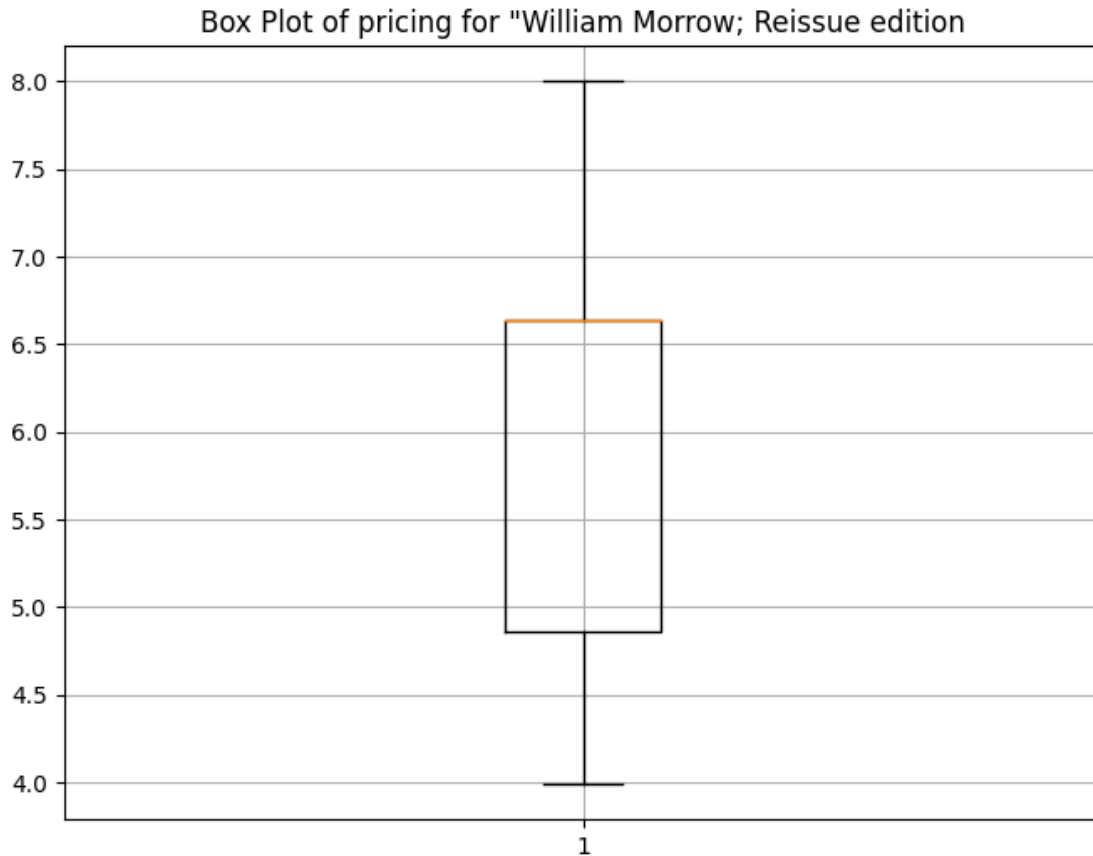
```
[ ]: numeric_data = books.select_dtypes(include='number')  
  
numeric_data.plot.area(stacked=False)  
plt.show()
```

```
[ ]: publisher_books = books[books['publisher'] == "William Morrow; Reissue edition"]

star_ratings = publisher_books['price']

plt.figure(figsize=(8, 6))
plt.boxplot(star_ratings)
plt.title(f'Box Plot of pricing for "William Morrow; Reissue edition"')
plt.grid(True)
plt.show()
```



```
[ ]: import seaborn as sns
```

```
numeric_data = books.select_dtypes(include='number')
```

```
sns.pairplot(numeric_data, hue="stars")
```

```
c:\Users\Fredin\AppData\Local\Programs\Python\Python310\lib\site-
packages\seaborn\_oldcore.py:1498: FutureWarning: is_categorical_dtype is
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packages\seaborn\axisgrid.py:118: UserWarning: The figure layout has changed to
tight
    self._figure.tight_layout(*args, **kwargs)

[ ]: <seaborn.axisgrid.PairGrid at 0x193917fa320>

```

