Faculty of Computer and Data Sciences, Alexandria University.
Course Title: Cloud Computing 02-24-00204
Department: Intelligent Systems (2nd year)

Assignment 2 | Dockerfile and Data Analysis with Popular Books Dataset

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Analysis Results:

Mean rating:

Average rating of Harry Potter books

```
[11]: hp_books['average_rating'].mean()
```

```
[11]: 4.491
```

Best Selling Books in order:

Best-Selling Books in order

```
[12]: hp_books_best_sellers = hp_books[['title', 'authors', 'original_publication_year', 'average_rating', 'ratings_count']].sort_values(by=['ratings_count'], as
hp_books_best_sellers
```

[12]:

	title	authors	original_publication_year	average_rating	ratings_count
1	Harry Potter and the Sorcerer's Stone (Harry P...	J.K. Rowling, Mary GrandPré	1997.0	4.44	4602479
6	Harry Potter and the Prisoner of Azkaban (Harr...	J.K. Rowling, Mary GrandPré, Rufus Beck	1999.0	4.53	1832823
9	Harry Potter and the Chamber of Secrets (Harry...	J.K. Rowling, Mary GrandPré	1998.0	4.37	1779331
10	Harry Potter and the Goblet of Fire (Harry Pot...	J.K. Rowling, Mary GrandPré	2000.0	4.53	1753043
11	Harry Potter and the Deathly Hallows (Harry Po...	J.K. Rowling, Mary GrandPré	2007.0	4.61	1746574
8	Harry Potter and the Order of the Phoenix (Har...	J.K. Rowling, Mary GrandPré	2003.0	4.46	1735368
12	Harry Potter and the Half-Blood Prince (Harry ...	J.K. Rowling, Mary GrandPré	2005.0	4.54	1678823
96	Harry Potter Boxset (Harry Potter, #1-7)	J.K. Rowling	1998.0	4.74	190050
613	Harry Potter Collection (Harry Potter, #1-6)	J.K. Rowling	2005.0	4.73	24618
1036	The Magical Worlds of Harry Potter: A Treasury...	David Colbert	2001.0	3.96	13820

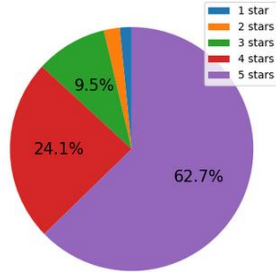## Extra Stats:

Average ratings (max, min, std, ...)

```
[13]: hp_books['average_rating'].describe()
```

```
[13]: count    10.000000
      mean      4.491000
      std       0.220829
      min       3.960000
      25%       4.445000
      50%       4.530000
      75%       4.592500
      max       4.740000
      Name: average_rating, dtype: float64
```
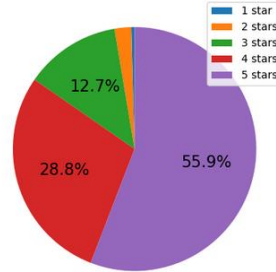
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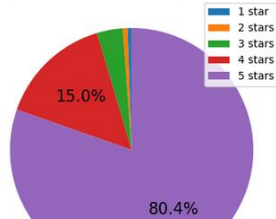
Rating Distribution by Book

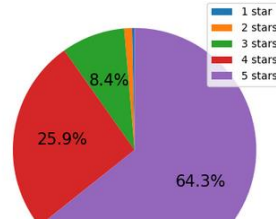Harry Potter and the Sorcerer's Stone (Harry Potter, #1)

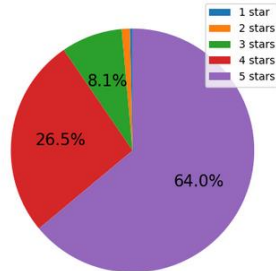Harry Potter and the Chamber of Secrets (Harry Potter, #2)

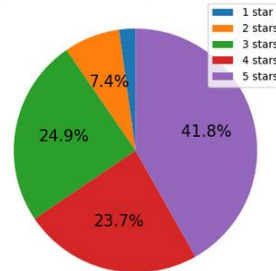Harry Potter Boxset (Harry Potter, #1-7)

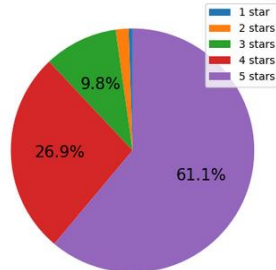Harry Potter and the Prisoner of Azkaban (Harry Potter, #3)

Harry Potter and the Goblet of Fire (Harry Potter, #4)

The Magical Worlds of Harry Potter: A Treasury of Myths, Legends, and Fascinating Facts

Harry Potter and the Order of the Phoenix (Harry Potter, #5)

Harry Potter and the Half-Blood Prince (Harry Potter, #6)