Rentomojo
Assignment

Submitted by:-

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Acknowledgement

First and foremost I would like to thank “RentMojo” for entrusting me with a project that gave me a chance to prove my value that I can provide to the company if I am chosen for the position. Also I would like to thank all my professors that taught me the tools necessary for such work. And last but not the least I would like to thank my family that has been pushing me forward since day one.

Without any further ado let's have a gander on the project.

(Also for a comfortable read please download full in pdf format from my github :- https://github.com/rishabhkapoor101/MoviesAnalysis)

Dataset

So the data set was a csv formatted file that contained the data about the movies.
It had 24 columns namely:-

1. index
2. budget
3. genres
4. homepage
5. id
6. keywords
7. original_language
8. original_title
9. overview
10. popularity
11. production_companies
12. production_countries
13. release_date
14. revenue
15. runtime
16. spoken_languages
17. status
18. tagline
19. title
20. vote_average
21. vote_count
22. cast
23. crew
24. director

With a row count of 4803.

The data set with a skim, seemed a piece of cake to work with, but after just digging a little, I realised that it was not the case.

I had to clean the data as there were “nan” values that essentially means “not a number” even when a number was expected.

This was not everything that was a challenge about the dataset, in fact we will see much more as we will progress through the dataset.

Toolset

The tools I used for this assignment are as follows:-

- Python3.8
- Pandas
- Jupyter notebook
- Microsoft Excel
- Tableau
- Pdf viewer
- github

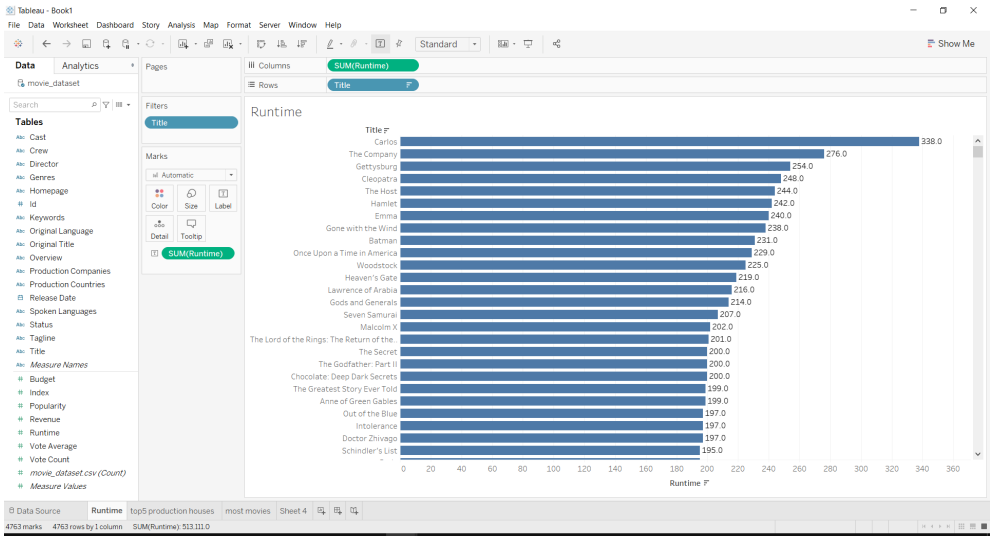
Task 1

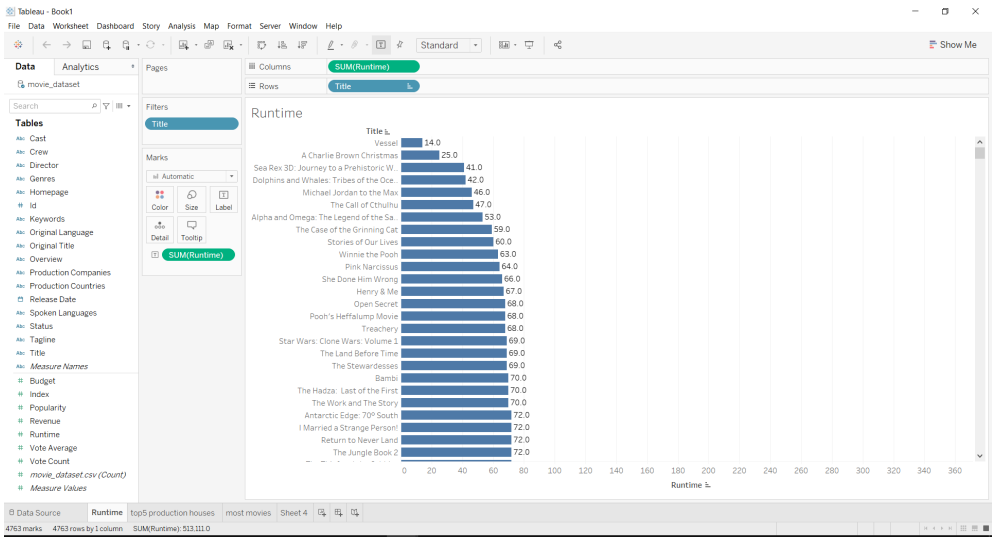
For task 1, I had to find the movies at contrasting ends of the runtime spectrum, i.e. I had to find the movies which had the highest and least runtime.

I did this without any difficulty in Tableau.

<u>Result</u> :- Movie with least runtime was **Vessel** with a runtime of **14 min** and
Movie with highest runtime was **Carlos** with a runtime of **338 min**

I have also attached the screenshot of my findings as follows...





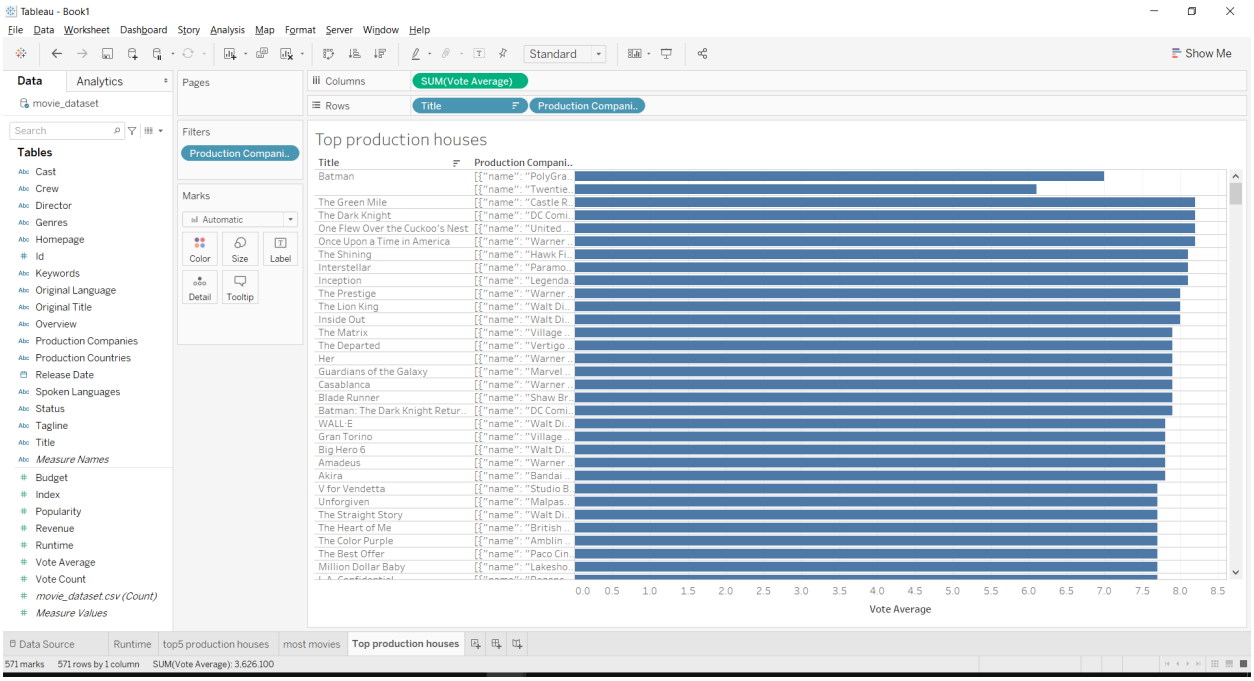
Task 2

For the second task I had to find the top five production houses with highest vote average, revenue and then find their 5 movies each.

What I found was that the biggest corporations according to the budget were:

- Walt disney
- Warner bros
- Dc comics
- Marvel
- BBc

And their respective movies are attached as follows:-

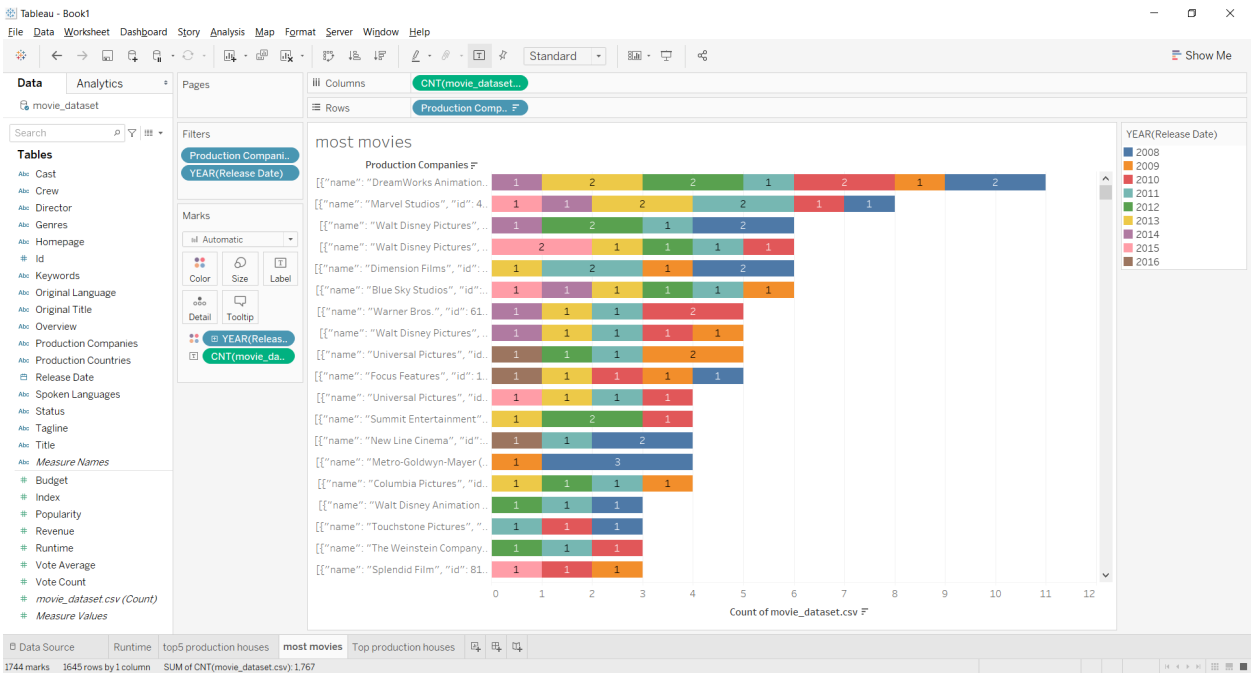


(for a cleaner look, please refer my book1.twb file)

Task 3

For task three, I had to list the production houses that released most movies in the period of 2006-2016

That was fairly easy and the sheet below will be self explanatory.



(I may sound a bit redundant, but for a closer and cleaner look, have a look at my book1.twb)

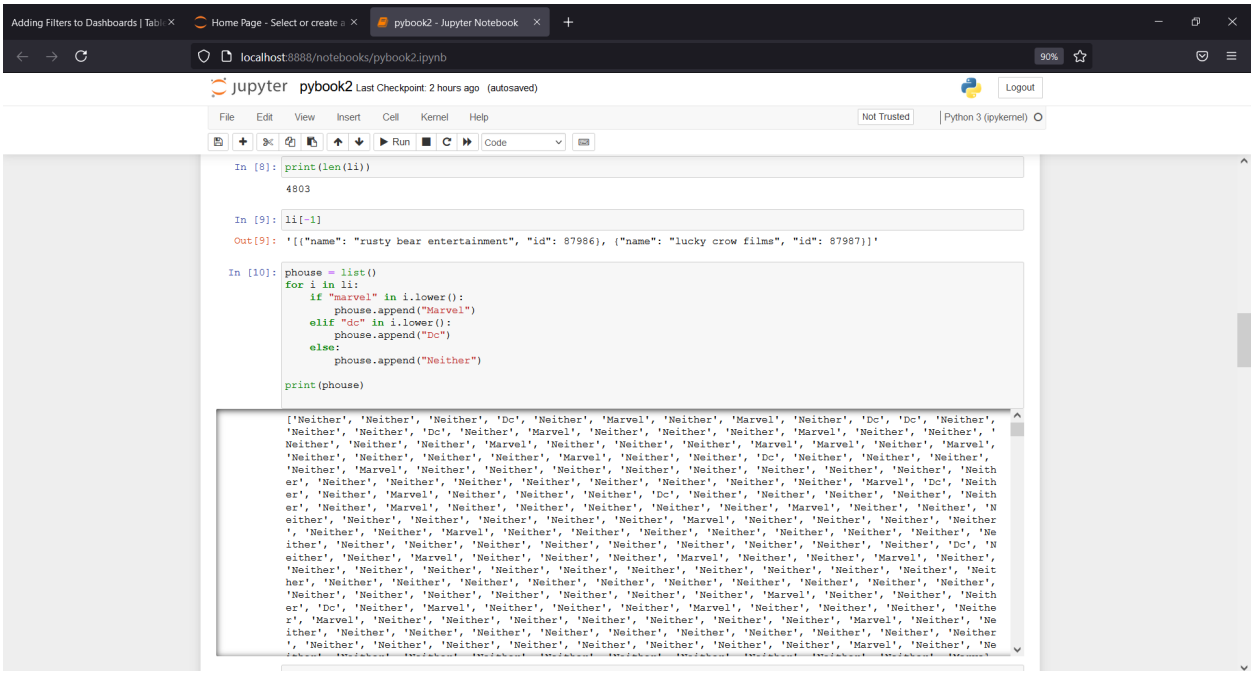
Taks 4

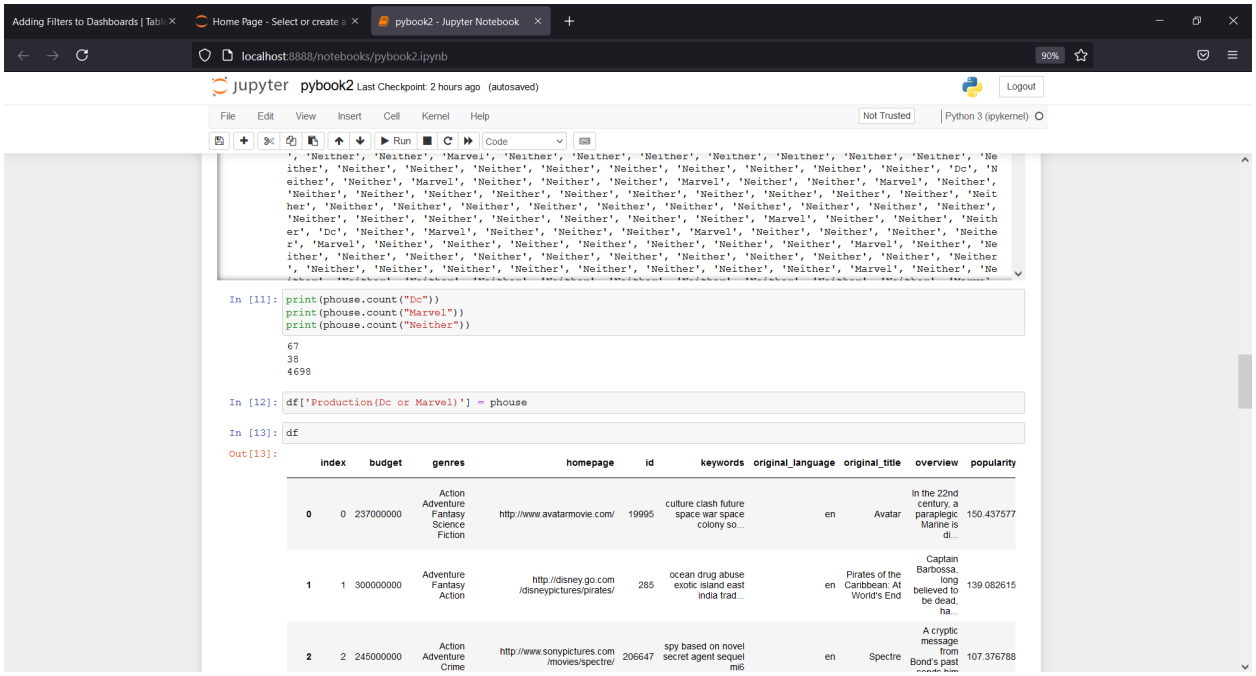
For this task I had to choose a company between DC comics and Marvel studios where I would invest all my money had I been given the option.
This was the question where I felt the most heat.

My approach was to compare the growth rate of the two companies rather than the raw revenue and that was a challenge in itself, I had to separate years from full dates, I had to classify them in production_house categories, which essentially were Dc, Marvel or Neither. And then I had to plot new info in the tableau. For which I had to make a new dataframe from modified values for plotting which I did make with the name of **“modified.csv”**

Everything except for the plotting was done in python3.8 and pandas in jupyter notebook.

I have attached some screenshots of the same…

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Python 3 (ipykernel)
Run
Code
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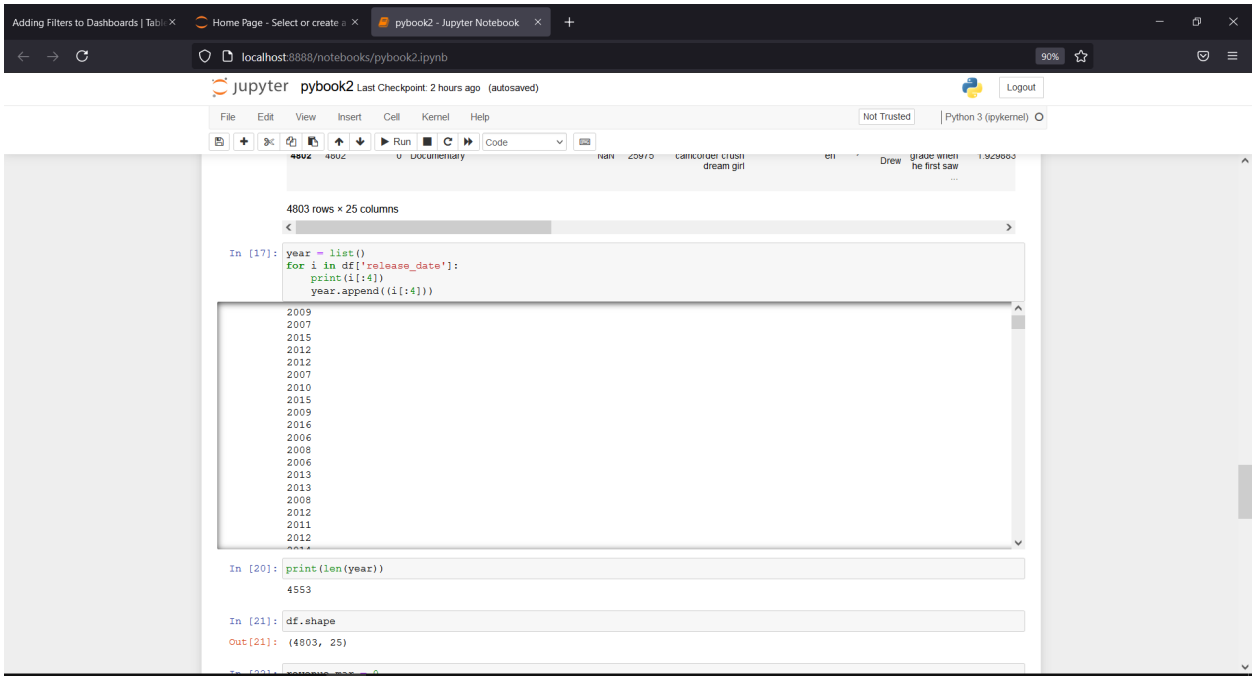
', 'Neither', 'Neither', 'Neither', 'Neither', 'Neither', 'Neither', 'Neither', 'Neither', 'Marvel', 'Neither', 'Ne
In [11]:
print(phouse.count("Dc"))
print(phouse.count("Marvel"))
print(phouse.count("Neither"))
67
38
4698
In [12]:
df['Production(Dc or Marvel)'] = phouse
In [13]:
df
Out[13]:
index budget genres homepage id keywords original_language original_title overview popularity
0 0 237000000 Action Adventure Fantasy Science Fiction http://www.avatarmovie.com/ 19995 culture clash future space war space colony so... en Avatar In the 22nd century, a paraplegic Marine is di... 150.437577
1 1 300000000 Adventure Fantasy Action http://disney.go.com/disneypictures/pirates/ 285 ocean drug abuse exotic island east india trad... en Pirates of the Caribbean: At World's End Captain Barbossa, long believed to be dead, ha... 139.082615
2 2 245000000 Action Adventure Crime http://www.sonypictures.com/movies/spectre/ 206647 spy based on novel secret agent sequel mi6 en Spectre A cryptic message from Bond's past sends him 107.376788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pybook2 - Jupyter Notebook
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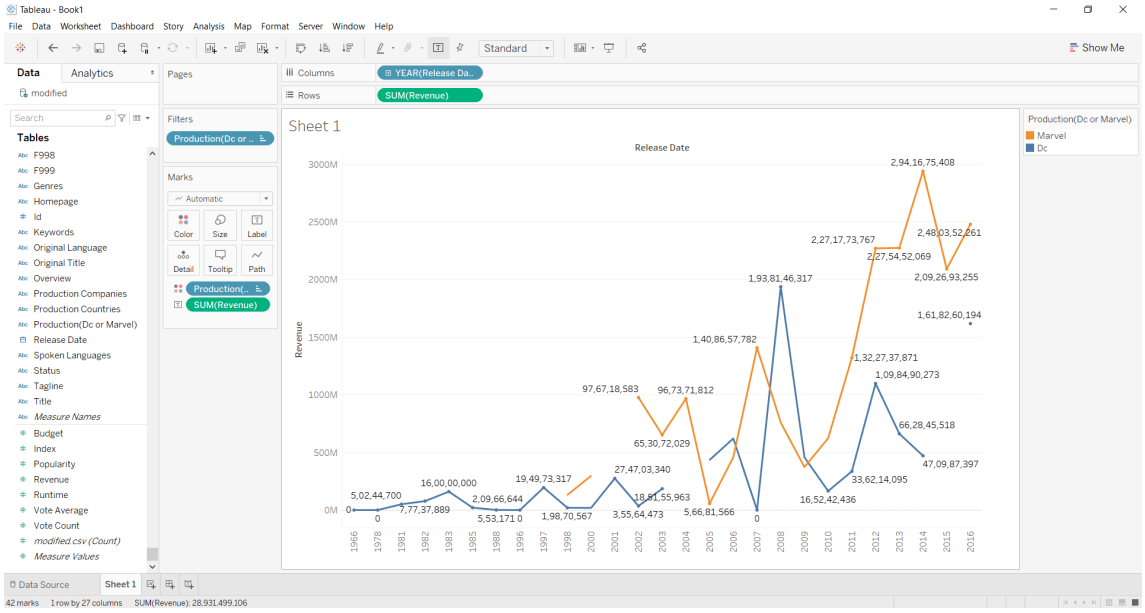
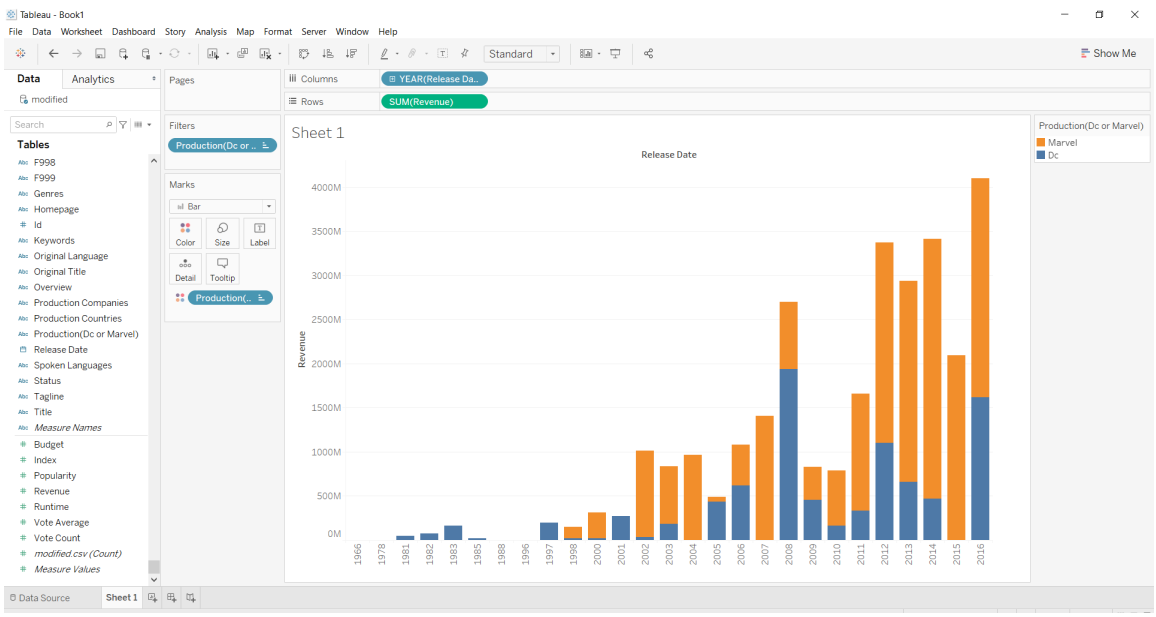
Logout
File Edit View Insert Cell Kernel Help
Not Trusted
Python 3 (ipykernel)
Run
Code
4803 rows × 25 columns
In [17]:
year = list()
for i in df['release_date']:
print(i[:4])
year.append((i[:4]))
2009
2007
2015
2012
2012
2007
2010
2015
2009
2016
2006
2008
2006
2013
2013
2008
2012
2011
2012
In [20]:
print(len(year))
4553
In [21]:
df.shape
Out[21]:
(4803, 25)

CHARTS

Below, the charts compare the revenue year wise ie growth and needless to say Marvel is the winner even though Dc started prior to Marve, so if I am given a chance to invest my money, without a shred of doubt it is going to be marvel.





(for a clearer look, refer to book2.twb)

Workflow…

As I already, have mentioned the tools I used, lets see how were they used,

- Python3.8 was very helpful in data cleaning and other manipulations.
  Also it was a massive help in getting to know the data on a very intimate level.

- Pandas was used via python to read and manipulate data frames easily.

- Jupyter notebooks were used for better formation visual representation of dataframes.

- And Github was used to make a public repo for this very project.

Thank you.

I hope you enjoyed reading this report.

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