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Dashboard with Tableau

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Subject: ALY6070 NUID: 002982645

Under the guidance of

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Introduction

This assignment is about to explore the two datasets which are part of a unknown population. This is all about titles (movies, shows), actors and director although revenue is not provided. The purpose of this assignment is to present the comfortable yet effective understanding and knowledge about what data. This assignment has done in Tableau which is most popular software after Python and R Language in industry.

There were two datasets named credits.csv and titles.csv. Therefore, to use both in tableau, I have to union with ids. Both have same ids for movies. So made them join with equal.

Left or right join could increase redundancy or noise. Once, this set is done you are good to go for generating dashboard which is quite powerful for visualization. (1) For some, we need to filter out nulls and replace with Average using '**Calculated Field**' option from tableau. To add to this, I've filter out top directors with respected to highest votes. Made year in month to get the area for shows and getting peak of it. Most cleaning was need for runtime, creating sets for colors and for Production Country. These kind of the cleaning and filtering data was required in order to get insights. (1)
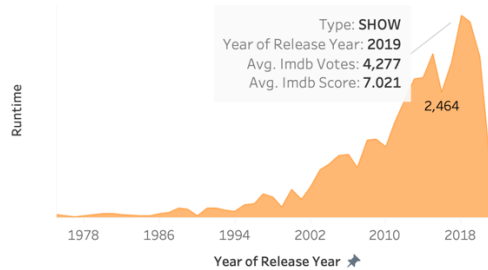
Tableau Dashboard

- Visualization is the key to get everything from data. Each chart and portion preserve different meanings.
- To start with, Tableau Dashboard consist of Data source which is main source where you can join data with different union options and when it comes to visualization, tableau provides different measures, filters and sets for variables.
- Dashboard is final part which is highly dynamic and responsive for demonstration what knowledge can be obtain from the dataset and how we can utilize it for own benefits.
- Tableau is getting popularity for visualization in industry which is followed by other tools like Google charts, PowerBI, etc.

Dashboard with Active filters

Fig.1 Dashboard with Production Country 'CA' (Canada)

Entertainment Dashboard
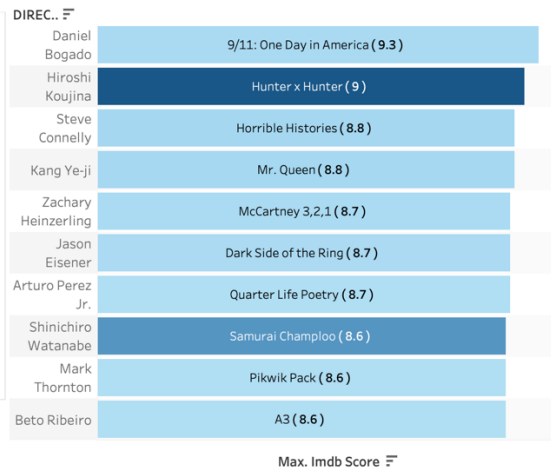
Avg. Runtime vs Release Year

Top 10 IMDB rated Shows w/ Production Countries

Title

Rock Solid Builds | 9.5

Type: **SHOW**
Year of Release Year: **2019**
Avg. Imdb Votes: **4,277**
Avg. Imdb Score: **7.021**

2,464

Runtime

1978   1986   1994   2002   2010   2018

Year of Release Year ✈

Top Production Countries with respective avg. Runtime and Avg. Season Production

Top IMDB rated Director w/ Shows

DIREC.. ᴲ

Director	Show
Daniel Bogado	9/11: One Day in America (**9.3**)
Hiroshi Koujina	Hunter x Hunter (**9**)
Steve Connelly	Horrible Histories (**8.8**)
Kang Ye-ji	Mr. Queen (**8.8**)
Zachary Heinzerling	McCartney 3,2,1 (**8.7**)
Jason Eisener	Dark Side of the Ring (**8.7**)
Arturo Perez Jr.	Quarter Life Poetry (**8.7**)
Shinichiro Watanabe	Samurai Champloo (**8.6**)
Mark Thornton	Pikwik Pack (**8.6**)
Beto Ribeiro	A3 (**8.6**)

Avg.Runtime: 37.79
Samples Count: 33
Prd. Country: ['CA']
Sum IDMB Votes: 607,871

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Max. Imdb Score ᴲ
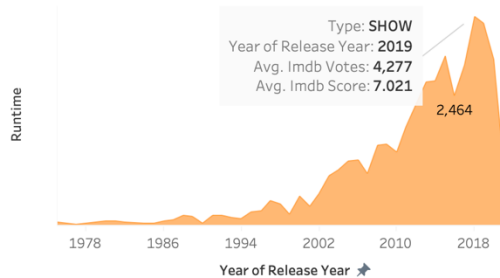
Production Countries
■ ['CA']

Note: Created a production world to latitude and longitude. Tableau was able to detect it and assign to countries. Other countries had very less samples and data so filtered out.

- As we can see from map, Sum of IMDB voters Canada has good number but in Top 10 shows it's just one named '**Rock Solid Builds**' which is around 9.5 out of 10 rated.

- Canada's avg. runtime is also 37.79 minutes which are quite surprising because standard length of show is 30 or 60 minutes.

- Avg. Canadian Show scores 7 IMDB which is considered as Good movie or show. To add to this, samples consist of Canada is just 33 which is very low in terms of analysis.

Fig.2 Dashboard with Production Country 'US' (United States)

Entertainment Dashboard

Avg. Runtime vs Release Year

Type: **SHOW**
Year of Release Year: **2019**
Avg. Imdb Votes: **4,277**
Avg. Imdb Score: **7.021**

2,464

Runtime

1978 1986 1994 2002 2010 2018

Year of Release Year

Top 10 IMDB rated Shows w/ Production Countries

Title

Rick and Morty — 9.2
Firefly — 9.0
The Joy of Painting — 9.3
9/11: One Day in America — 9.3
Battleground — 9.5

Top Production Countries with respective avg. Runtime and Avg. Season Production

Avg.Runtime: 36.46
Samples Count: 773
Prd. Country: ['US']
Sum IDMB Votes: 18,995,038

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Production Countries
■ ['US']

Top IMDB rated Director w/ Shows

DIREC..

Daniel Bogado — 9/11: One Day in America (**9.3**)
Hiroshi Koujina — Hunter x Hunter (**9**)
Steve Connelly — Horrible Histories (**8.8**)
Kang Ye-ji — Mr. Queen (**8.8**)
Zachary Heinzerling — McCartney 3,2,1 (**8.7**)
Jason Eisener — Dark Side of the Ring (**8.7**)
Arturo Perez Jr. — Quarter Life Poetry (**8.7**)
Shinichiro Watanabe — Samurai Champloo (**8.6**)
Mark Thornton — Pikwik Pack (**8.6**)
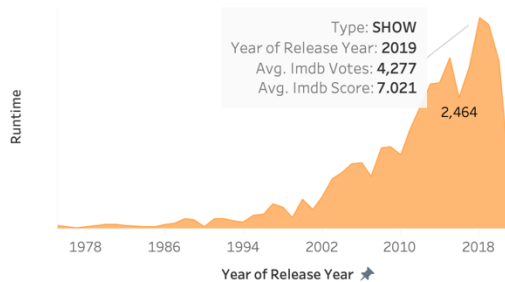Beto Ribeiro — A3 (**8.6**)
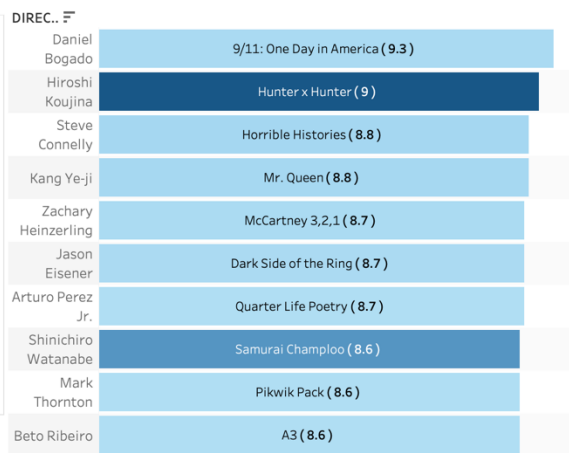
Max. Imdb Score

- This is for US filter where there are five shows in top 10 and above 9 out of 10 and Rick and Morty has a lot of voters from US and it's adult cartoon like show.

- Still United States producers are ought to make episode of avg. runtime of 36.4 minutes.

- Sample count which includes production in US is 773.

Fig.3 Dashboard with Production Country 'JP' (JAPAN)
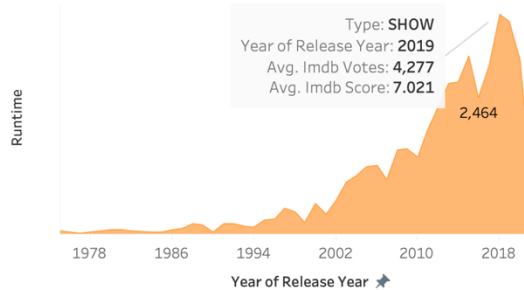
- Note Fig.3 is for Japan filter where there are 4 shows in top 10 and one should not get surprise as all of them are animes which are most popular in Japan as well as world in recent time.
- Animes includes 30 minutes episodes removing intros and ending avg. runtime should be 24 which is accurate.
- Dark Blue color of 'Hunter x Hunter' means it is highly voted and got 9 from IMDB which is amazin.
- Sample count and Summation of IMDB votes are not bad for Japan in this dataset.
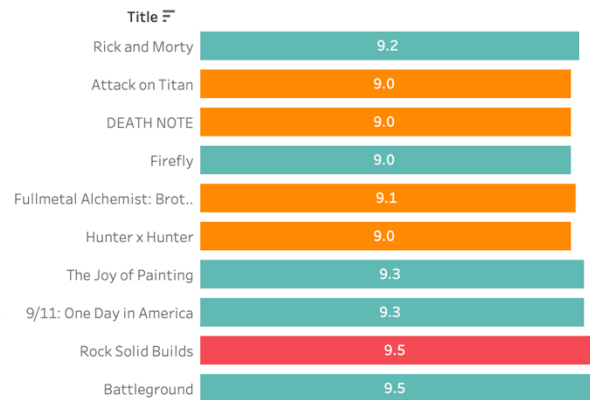
Fig.4 Top Directors with shows
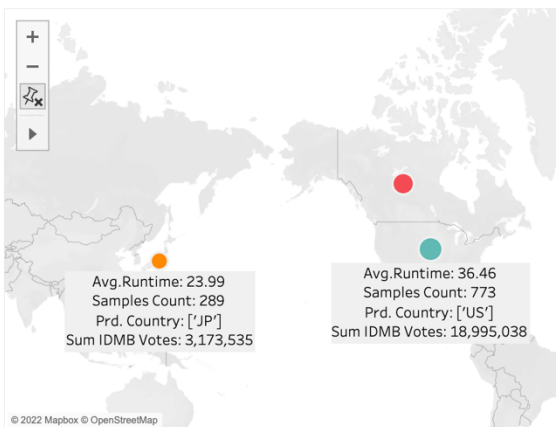
Entertainment Dashboard
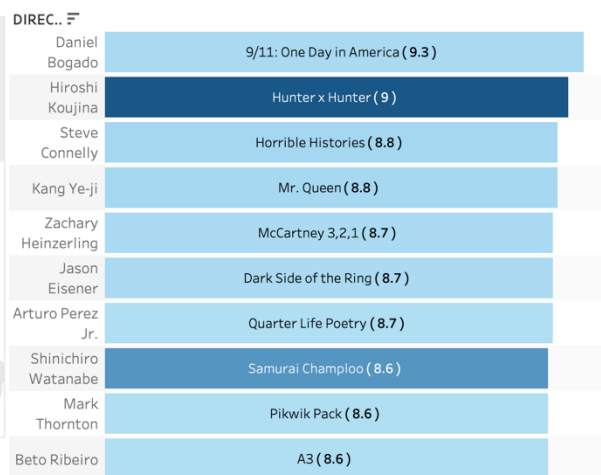
Top 10 IMDB rated Shows w/ Production Countries

Avg. Runtime vs Release Year

Type: **SHOW**
Year of Release Year: **2019**
Avg. Imdb Votes: **4,277**
Avg. Imdb Score: **7.021**

2,464

Title	Rating
Rick and Morty	9.2
Attack on Titan	9.0
DEATH NOTE	9.0
Firefly	9.0
Fullmetal Alchemist: Brot..	9.1
Hunter x Hunter	9.0
The Joy of Painting	9.3
9/11: One Day in America	9.3
Rock Solid Builds	9.5
Battleground	9.5

Top Production Countries with respective avg. Runtime and Avg. Season Production

Top IMDB rated Director w/ Shows

Avg.Runtime: 23.99
Samples Count: 289
Prd. Country: ['JP']
Sum IDMB Votes: 3,173,535

Avg.Runtime: 36.46
Samples Count: 773
Prd. Country: ['US']
Sum IDMB Votes: 18,995,038

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DIREC..	Show (score)
Daniel Bogado	9/11: One Day in America (9.3)
Hiroshi Koujina	Hunter x Hunter (9)
Steve Connelly	Horrible Histories (8.8)
Kang Ye-ji	Mr. Queen (8.8)
Zachary Heinzerling	McCartney 3,2,1 (8.7)
Jason Eisener	Dark Side of the Ring (8.7)
Arturo Perez Jr.	Quarter Life Poetry (8.7)
Shinichiro Watanabe	Samurai Champloo (8.6)
Mark Thornton	Pikwik Pack (8.6)
Beto Ribeiro	A3 (8.6)

Production Countries
■ ['CA']   ■ ['JP']   ■ ['US']

Max. Imdb Score

Note: Created a calculated field via Ids of both dataset and check for role director if both condition match returned names of directors. Set Label setting for bracket to remove X axis.

- **Daniel Bogado** got highest rated show out of samples which **'9/11: One day in America'** with 9.3 out 10 IMDB.
- For some show, there are multiple directors for different seasons and There are samples having same director out of all filtered according to IMDB rating which is our objective.
- As blue gets dark mean it got more votes from people.
- 'Hunter x Hunter' which is Japanese anime (cartoon like) got so many votes still score 9 out of 10. We can't deny that it is good.

Conclusion

In nutshell, IMDB is the target variable as it holds value for both producers and viewers. Most of the votes comes from US. Data lacks revenue feature though we can see some surprising results. Throughout the time, sum of runtime has increased so hype of shows are increasing as we can see in the graph. This dashboard is good enough to get recommendation for shows as well as one can get list of directors' is just a way to identify movie at first, if it good or not for watch. But major samples are from these 3 countries.

Modification:

These criteria's are required to modify as I've gained little more experience.

Comment	Action
Data Preparation: Meets Standards The data set was cleaned, formatted, and prepared for analysis in a satisfactory way	I've mentioned how I filter out, created sets. (1) mentioned at end of paragraphs.
Visualization Design: Meets Standards	Added some key points, maintain colors for relevancy of variables. Remove ticks and demonstrated on bar itself. Clickable filters that can arrange top produces according to country
Design Rationale: Meets Standards Provides a valid rationale used to formulate the visualizations.	Explains and illustrating all of the things according to filter. Made bar chart proper readable and easy guessing with colours. Added written description for individual element.