Report Title\*

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*Abstract*—This electronic document is a “live” template and already defines the components of your paper [title, text, heads, etc.] in its style sheet. *\*CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract*. (*provide a short abstract*)

Keywords—example1, example2, example3, example 4, example 5 (provide 3-5 keywords)

# Introduction

Tv has had a major impact on culture across the world. It being a medium to share stories, learn about current events, and connect people globally. With the rise of streaming and the death of cable television what effect does this have on landscape of television? Does popularity and ratings correlate? Are the best shows the ones getting the time to shine? Looking at different reviews and viewership numbers we can get this information.

# Datasets

## Source of dataset

In this part, you should introduce your datasets. Where did you download it? Is it a credible source? When were the datasets generated? How were the datasets generated by the creator? If you create the datasets, how did you generate it?

The data used was found on Kaggle, a credible data source. The data is from 2022 and collected the ratings and popularity of a ton of different shows. The data was gathered by The Movie Database API

## Character of the datasets

What’s the format and size of the datasets? What parameters/columns/rows/character and their units are included in this dataset. Use a table to explain this is recommended. Did you clean the data or convert any unit in the dataset? If so, what’s the formula/rule did you apply? Did you combine any datasets? If so, how do you combine them? Did you create any new category for analysis in the datasets? If so, what and how do you create?

the dataset contains 2616 entries each with 8 different data points 1) first\_air\_date - The date when the show was first aired on television 2) origin\_country - The country where the show was created / originates from 3) original\_language - The original language of the show 4) name - Name of the show in English. Note that names in original language are not included in this dataset. 5) popularity - A metric that measures how popular a TV show is based on consumer views 6) vote\_average - Average of the total number of votes the show received 7) vote\_count - The number of votes the show received 8) overview - A brief description of the show

# Methodology

In this part, you should give an introduction of the methods/model. First, what’s the method/model. What’s the assumption of this method/model. What’s the advantage/disadvantage of this method/model. Why did you choose it. What Python module or function do you apply to apply this method/model. Any optional input/extra work did you adjust to make the results better. If you have multiple methods, feel free to use subsection A., B. to separate them.

Example: Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections A-D below for more information on proofreading, spelling and grammar.

## Data Overview

The first thing I did was create look at general information about that data. A table was created with the necessary information containing mean, standard deviation, min, max, and 25th and 75th percentile using the data describe function in pandas

I also wanted to take a closer look at some of the more popular shows, so I mad another table containing the top 5 most popular shows and then the highest rated shows

## Heat map

The next thing I wanted to look at was the correlation between quality and popularity, I also wanted to see if the amount of votes a show received impacted the rating as well. Using the seaborn correlation function I was able to produce a heatmap

Although the heatmap is a very simplistic way of looking at the data and needed to be preprocessed for null values. It is a visually clear and easy to understand way of visualizing the data

## Year vs Popularity Graph

Example: next I wanted to look at papulation vs the year using graph for this I used MATLAB. The first attempt did not go as planned the graph look awkward having a big spike in popularity in 2023. I decided that the data needed to be filtered to give a more accurate graph. I removed any extreme outliers and checked how many data points per year there were.

As the years increased so did the amount of data points beside for 2023 this being 2 year old data 2023 having few data points made sense as the study was conducted in 2023. With the filtered data I created a new graph this time feeling cleaner.

The graph is a very effective was of showing the trends in show popularity although its hard to explain some of the trend like the spike at around 1964

# Results

In this part, you need to select a reasonable way to deliver the result of your topic. For example, equation or numerical results, or visualization of your result. You also need to provide a clear explanation of all results and how to understand the results. If there exist any unexpected results, please explain why or possible cause of this special result. You can use subsection A. B. to separate your results.

Example: After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

## Data Overview

| Table Head | Table Column Head | | |
| --- | --- | --- | --- |
| Popularity | Vote Average | Vote Count |
| count | 2617 | 2617 | 2617 |
| mean | 59.805 | 7.692 | 604.823 |
| std | 22.409 | 0.617 | 1223.234 |
| min | 0.866 | 0.6 | 99 |
| 25% | 16.567 | 7.3 | 150 |
| 50% | 27.489 | 7.7 | 257 |
| 75% | 49.765 | 8.1 | 569 |
| max | 6684.611 | 9.0 | 19459 |

Fig. 1. General description table

This is a general overview of the data we received. I would like to draw attention to a couple key points. First the lowest voting average was a 0.6 while the 25th percentile has a 7.3 being much higher than then the lows showing that most show have an above average (5/10) reception. If we look at the data provided for vote count, we can see that most shows have a very low number of vote for there rating the 75th percentile being 569 but the max being 19459 severely driving our mean up giving us 604.84

When looking at the popularity we can see the max is 6684.611 which is a huge difference from most other popularity scores given in the data this is most likely the data point that messed up our results in part C

## Results B

Example: Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

## Results C

#### Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

1. Table Type Styles

| Table Head | Table Column Head | | |
| --- | --- | --- | --- |
| Table column subhead | Subhead | Subhead |
| copy | More table copya |  |  |

1. Sample of a Table footnote. (*Table footnote*)
2. Example of a figure caption. (*figure caption*)

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

# Discussion

Every method/project has its shortage or weakness. Please discuss the unsatisfied results in your project. And discuss the feasible suggestions of future work to revise/improve your result.

Example: xxx

# Conclusion

In this part, you should summarize your project. What important results did you find for your topic and what’s the effect of this result on the real-world?

Example: xxx

##### Acknowledgment

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression “one of us (R. B. G.) thanks ...”. Instead, try “R. B. G. thanks...”. Put sponsor acknowledgments in the unnumbered footnote on the first page.

##### References

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