

IDS 2017

Assignment 1

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1.1 Identify Data Types (10P)

- Brightness as measured by a light meter: continuous because each measurement obtains a distinct score[1], quantitative (ratio) because this device could have an absolute zero (i.e., absence of light).
- Brightness as measured by people's judgments: if you use a Lickert scale to measure people's judgment, then brightness would be discrete and qualitative (ordinal) because the measurements have a logical order but do not reflect numerical true values.
- Time in terms of AM or PM: binary, qualitative (nominal if one considers there is not a logical order between AM and PM or ordinal if one views PM coming after AM).
- Coat check number (certain places offer you to leave your coat to someone who, in turn, gives you a number tag that you need to claim it back when you leave): discrete, qualitative (ordinal or perhaps nominal if the coats aren't placed in the order of the integers).

1.2 Collect It... Link it! (50P)

In this exercise we write down `enrich_script.R` in order to collect additional data from the API of OMDb. How we developed the code and what we done are mostly written in the `README.txt` file.

1.3 Think About Types (20P)

- Title: discrete, qualitative (nominal) Discrete because there is a finite number of titles and qualitative nominal because it's like an ID
- ReleaseDate: discrete, quantitative (interval)
Discrete for the same reason, and quantitative (interval) because they are calendar dates.
- Popularity: continuous, quantitative (ratio)
It's continuous because there are infinite numbers of popularity since they are real numbers and quantitative (ratio) because there is absolute zero
- Budget: continuous, quantitative (ratio)
same reason as above
- Revenue: continuous, quantitative (ratio)
same reason as above

- Genre: discrete, categorical (nominal)
discrete because there are finite number of genres, qualitative (nominal) you cannot declare an order
- imdbRating: discrete, numeric (ratio)
discrete because it has a precision to the first decimal number , it exists the absolute zero
- imdbVotes: continuous, quantitative (ratio)
it's continuous because there is no finite number of imdbVotes, and ratio because we can have 0 votes.
- Director: discrete, categorical(nominal)
discrete because there finite number of names, categorical (nominal) because they are names
- Country: discrete, qualitative (categorical)
same reason as above
- PG rating: discrete, qualitative (ordinal)
finite number of pg ratings, qualitative (ordinal) because you can order the ratings by the age the child can watch that movie

1.4

1.5 Bonus (+10P)

We used a scatter plot in order to visualize the data that we have and compare properly the IMDB ratings and Rotten Tomatoes ratings. Just see the png file `imdb_vs_rottenT` to see easily see that for some movie the ratings are pretty close for other there is some difference. That's because IMDB uses a weighted mean [2] with all the users votes, in the other hand Rotten Tomatoes collects all the ratings from critical professional from all over the world. There is also a Rotten Tomatoes rating from the users see [3].

References

- [1] Field, A. (2009). Discovering statistics using SPSS. Sage publications.
- [2] <https://math.stackexchange.com/questions/169032/understanding-the-imdb-weighted-rating-function-for-usage-on-my-own-website>
- [3] <https://www.rottentomatoes.com/about/>