Movies Information

Authors: Inês Leite (92928), Pedro Marques (92926)

Information Visualization, 2021/2022 (MSc Informatics Engineering, University of Aveiro)

Abstract

# Motivation and objectives

Everyone watches movies but doesn’t know much about them. The goal of this project was to give more insights about the movies overall, this is, the countries that produce them, the genres that are more produced, and the more popular movies at the time the dataset was made.

# Users and the Questions

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat [1]. Ut wisi enim ad minim veniam, quis nostrud exercit­ation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulpu-tate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blan-dit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

## Characterization of the users and their context

Everyone can use this platform, but it it’s for people that are interested in finding out more about movies overall.

The tested users

<gráfico de idades e género do form que fizermos>

## Questions to Answer

**General:**

* What countries produce the most movies?
* What genres of movies are more produced?
* What are the popular movies right now?

**Specific:**

* What’s the revenue of the USA from 1950 to 2000?
* What genres have movies with the highest ranking?
* What are the most popular romance movies in Australia?

# Dataset

The dataset used is ‘The Movies Dataset” from Kaggle. It has several columns but only 8 are used: budget, genres, popularity, production\_countries, release\_date, revenue, title, and vote\_average.

# Visualization Solution

For visualizing the solution, firstly, a fidelity prototype was made and tested on some users. After finalizing the first version of the functional prototype done, it was also tested. Lastly, the feedback was applied and a high fidelity prototype was developed.

## Low fidelity prototype and user feedback

Our first development of the prototype was simple and ended up suffering a major rework. First, we visualized a single web page with 3 graph visualizations.

The first visualization would be a choropleth map with the world distribution of movie production. Some filters would be available like the release date and a max-min range filter.

Secondly, a plotlines graph would be used to present the results about some selected countries. The user would be able to select specific them from the list on the left and check on some details about them. Finally, a horizontal bar chart would also be available to visualize the works of certain actors. Like the one before, there would be an option to select specific actors and see their genre distribution.

Graphical user interface

Description automatically generated

Figure 1 - First version of the Low Fidelity Prototype

As mentioned previously, this LFP suffered a major rework.

**#INSERT SOME BS Heuristic Evaluation and Feedback**

As such, we developed a second prototype taking into consideration the target’s audience needs to search for a movie/show.

## Timeline Description automatically generated with low confidence

Figure 2 - Cloropleth Map of the Production Countries

## Graphical user interface, application Description automatically generated

Figure 3 - Donut Chart of the Distribution of Genres

## Chart Description automatically generated

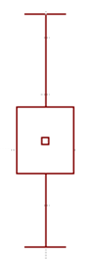
Figure 4 - Horizontal Bar Chart of the Ranking of Popular Movies

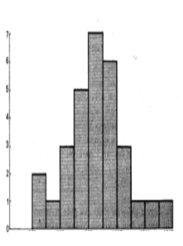
One key difference was the existence of two new other pages where the graphs were placed. Furthermore, we improved the usability by allowing navigation between pages simply by using a navigation bar or interacting with the graphs. As such, clicking on a country in the choropleth map would redirect to the page with the donut chart where the specific data for the selected country would be shown. Finally, clicking on each arc would redirect to the final page, taking into consideration the selected genre and country.

Some new filters were also added, these included filters by release date, rating genre and country.

## Functional prototype

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exercit­ation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulpu-tate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blan-dit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.





1. Visualizations to answer question Q1.
2. Visualizations to answer the question Q2.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exercit­ation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulpu-tate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blan-dit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

## Implementation challenges

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat (<https://d3js.org/>). Ut wisi enim ad minim veniam, quis nostrud exercit­ation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulpu-tate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blan-dit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

## Evaluation and changes in the prototype

After testing the prototype with the users some aspects to improve were clear:

* Adding a front page to the website with a preview of the graphs and their use.
* Add captions to the popular movies bar chart for a more clear and quick understanding.
* Change the layout of the filters, putting them close together.
* Adding more information to the pages.

# Conclusion and Future Work

* Adding a bar chart to clearly exposed the differences of the production countries.
* Change the donut chart to a What?

References