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CineMetrics:
Discovering the Best Movies through Data Analytics and Visualizations

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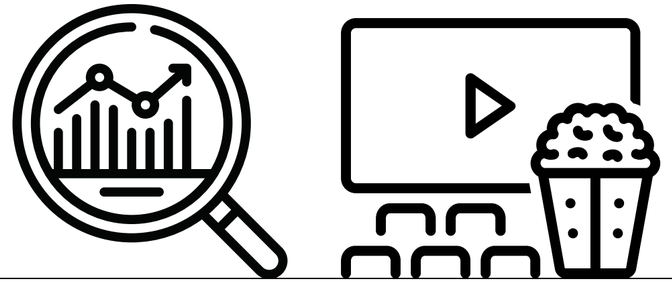
Introduction

- **Project designed** for movie enthusiasts and casual moviegoers
- **Data sources:** Metacritic, IMDB, and TMDB for accuracy and reliability.
- **Focus:** movie reception among audiences and critics. Analyzing diverse movie data: box office, review, ratings, and other key metrics.
- **Data analytics and visualization** techniques for engaging narratives



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Project Overview

- **Python** - Extract IMBD, Metacritic, OMDb data from APIs. Store Json calls responses in MongoDB
- **Postgre/SQL -** Perform queries and data analysis to gain insights into movie trends.
- **Python Flask -** Build a Python Flask web application that collects the final movie data from a PostgreSQL database and utilizes routes to display data on a webpage.
- **Java and HTML -** Create interactive visualizations and display data on the web page.

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Data Collection and Delivery

- Data from three sources via **two APIs**: OMDB and TMDB**.**
- Focused on 800 movies with over 5,000 votes for reliable ratings.
- Utilized **MongoDB** for initial storage and **PostgreSQL** for data manipulation.
- **Python Flask API** powers the project, with **HTML/CSS** for webpage structure.
- **JavaScript** employed to create engaging visualizations.

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Back End and Visualization Technologies

- Introduce the use of a JavaScript library called "Taucharts"
  https://taucharts.com/
- Dashboard powered by data from PostgreSQL, sourced from APIs.
  https://www.omdbapi.com/
  https://www.themoviedb.org/

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Interactive Visualizations and User Experience

- **20 dynamic views**: visualizations update with user-selected genres.
- **Unique views**: Genre vs. Rating, Genre vs. Runtime, IMDB vote counts vs. Box-office, and movies listed by genre.
- **User-driven interactions:** genre selection dropdown and zoom feature on bar chart.

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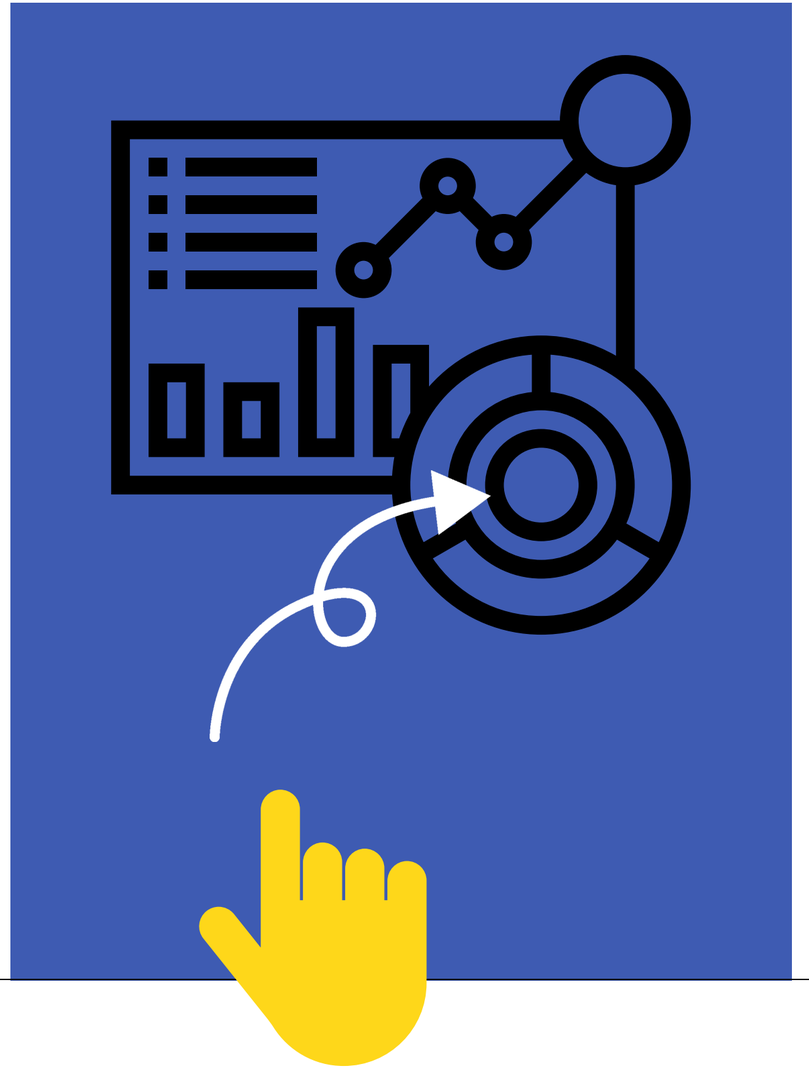
DASHBOARD PAGE



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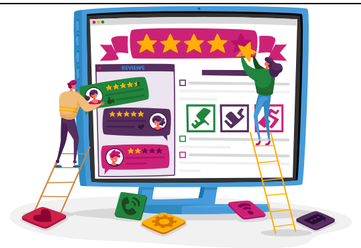
Conclusion and Challenges



- Comprehensive movie analysis using data from Metacritic, IMDB, and TMDB.
- Leveraged Python Flask API, HTML/CSS, JavaScript, and PostgreSQL for seamless integration.
- Introduced new JavaScript library, Taucharts, for advanced visualizations.
- Customizable user experience with multiple interactive visualizations and easy-to-understand data story.
- Successfully provided valuable insights and movie recommendations for enthusiasts and casual moviegoers alike.

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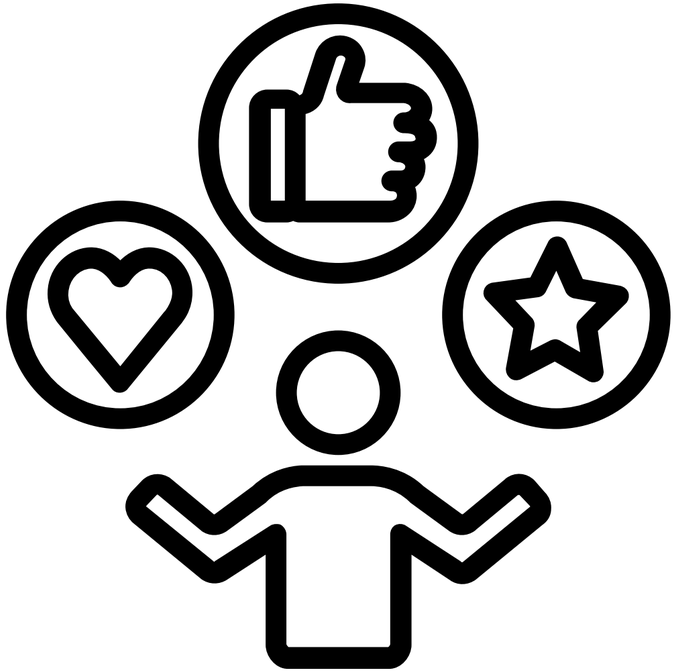
Question Time



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Thank you

Thank you for participating.

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