11.12.24

Company Expansion
Movie Analysis

Agenda

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01

Introduction

Company Expansion

Company wants to create a new movie studio, but it is a new venture. As a result, it is necessary to understand what types of films are currently doing the best at the box office
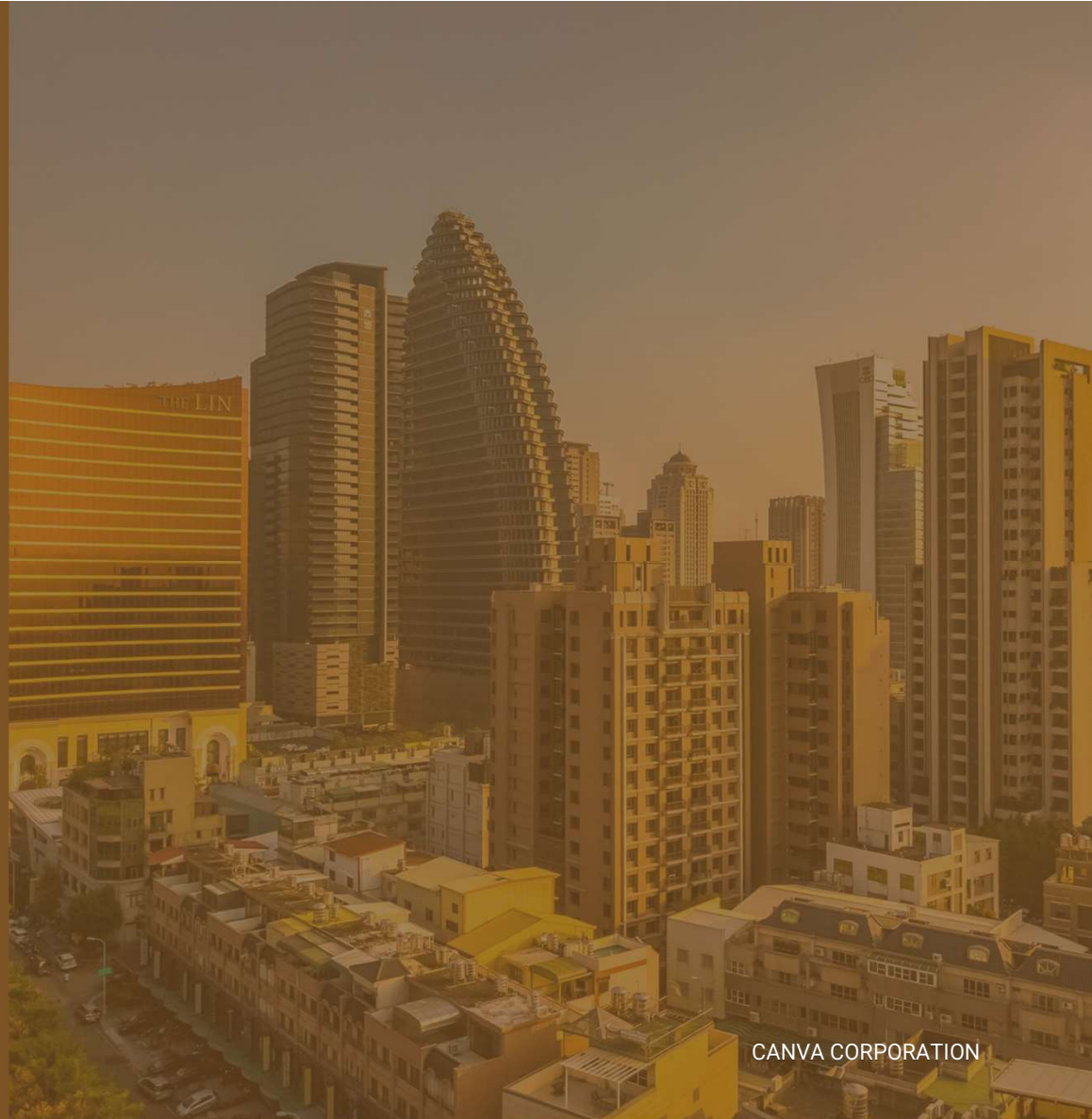
Relationships

Examined the following linear relationships:

- Runtime vs. Production Budget
- Runtime vs. Net Profit
- Production Budget vs. Net Profit

02

Data

Data Understanding

- Sources of the Data
  - 1 – Internet Movie Database (IMDb)
  - 2 – Box Office Mojo
  - 3 – Rotten Tomatos
  - 4 – The Movie Database
  - 5 – The Numbers

Data Understanding

- Sources of the Data
  - 1 – Internet Movie Database (IMDb)
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- Winners
  - **IMDb** → *Runtime Minutes*
  - **The Numbers** → *Production Budget, Domestic Gross, Worldwide Gross*

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Data Preparation

- Step 1: Merged the IMDb and The Numbers datasets together

- Step 2: Created a new variable – *Net Profit*
    - *Worldwide Gross --- Production Budget = Net Profit*

Data Preparation

- Descriptive Statistics

Runtime (Minutes)	
Count	1,521
Mean	106.72
STD	19
Minimum	4
25%	94
50%	105
75%	117
Max	180

Budget (Dollars)	
Count	1,521
Mean	44,813,700
STD	56,119,070
Minimum	15,000
25%	8,000,000
50%	22,000,000
75%	55,000,000
Max	410,600,000

Net Profit (Dollars)	
Count	1,521
Mean	96,452,060
STD	192,729,600
Minimum	-200,237,600
25%	-736,060
50%	22,651,860
75%	105,763,400
Max	1,748,134,000

Budget = Production Budget

STD = Standard Deviation

03
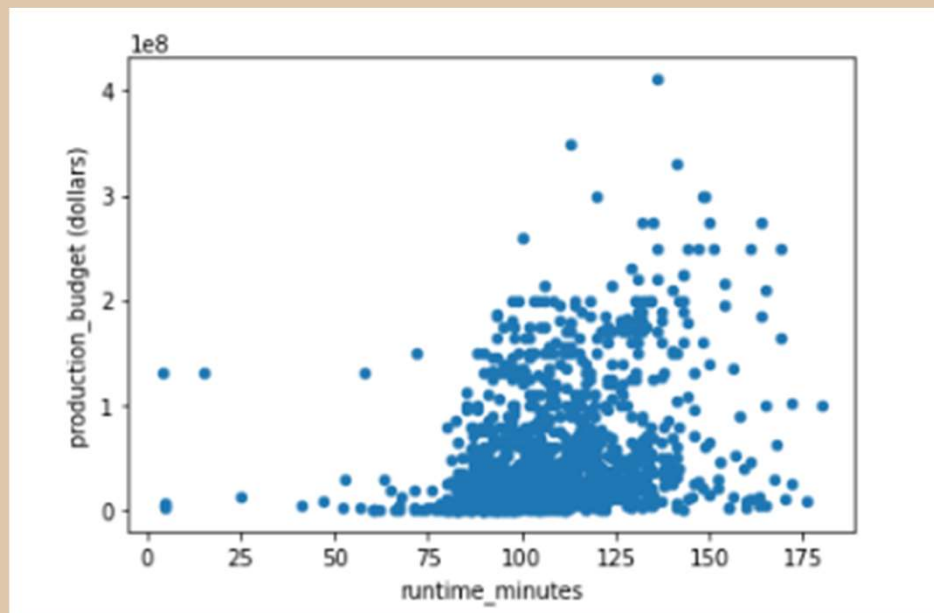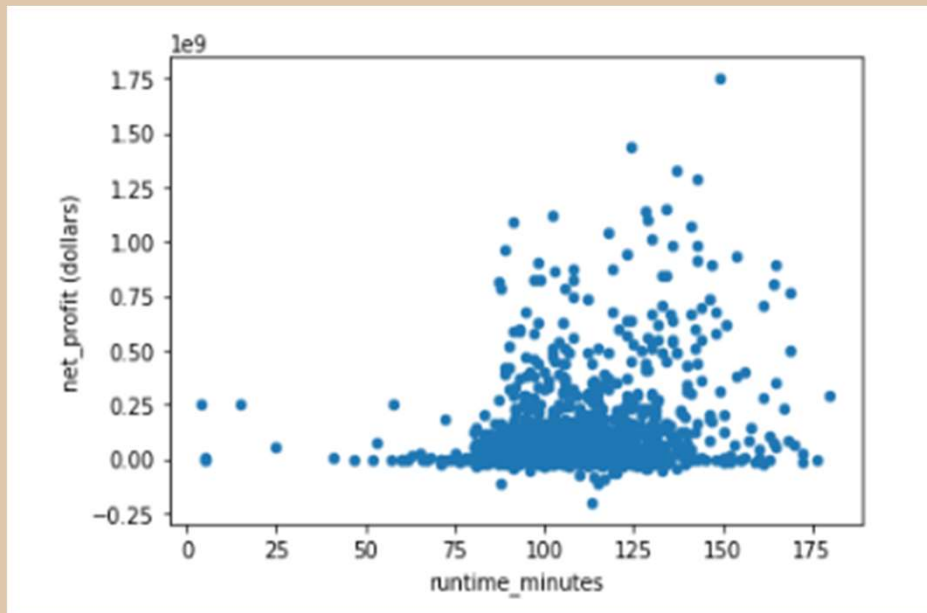
Modeling
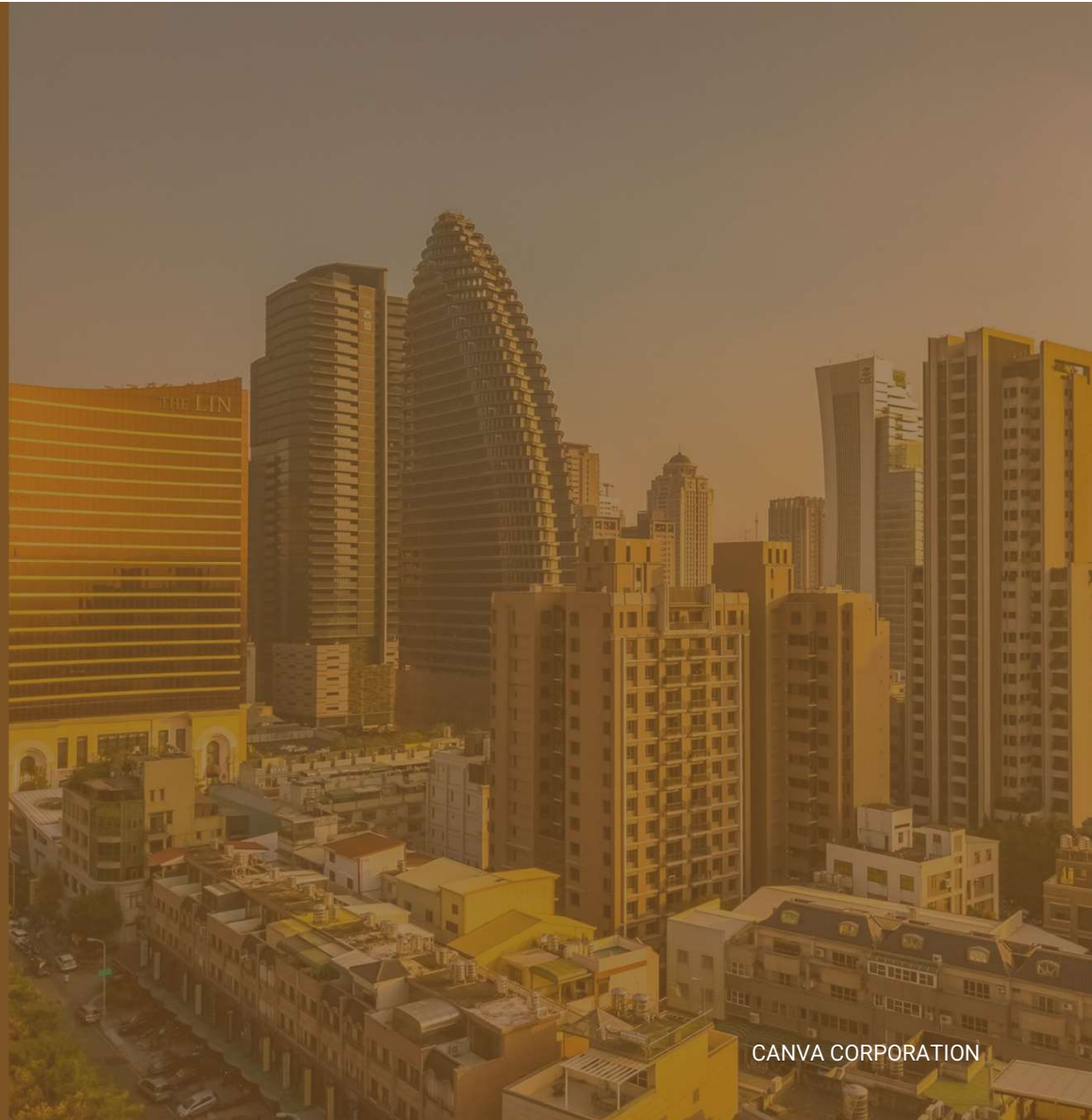
Data Understanding

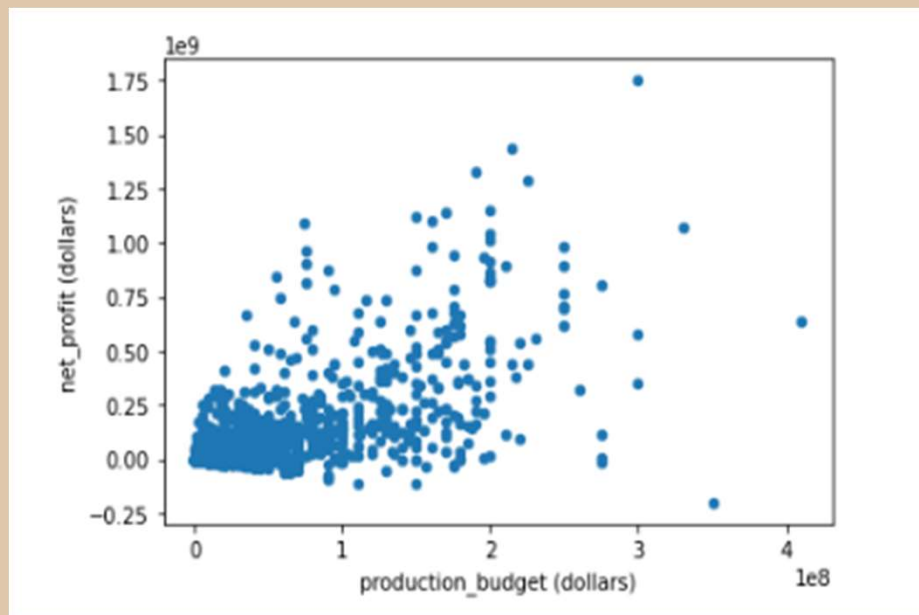- Runtime vs. Production Budget
  - Weak Correlation

Data Understanding

- Runtime vs. Net Profit
  - Weak Correlation

Data Understanding

- Production Budget vs. Net Profit
  - Strong Correlation

Data Understanding

- Production Budget vs. Net Profit
  - Model

- Net Profit = 2.2875 (Production Budget) + -5,300,000

04

Recommendations and Conclusions

Recommendations and Conclusions

- 1 – ~~Runtime vs. Production Budget~~

- 2 – ~~Runtime vs. Net Profit~~

- 3 – ~~Production Budget vs. Net Profit~~

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05

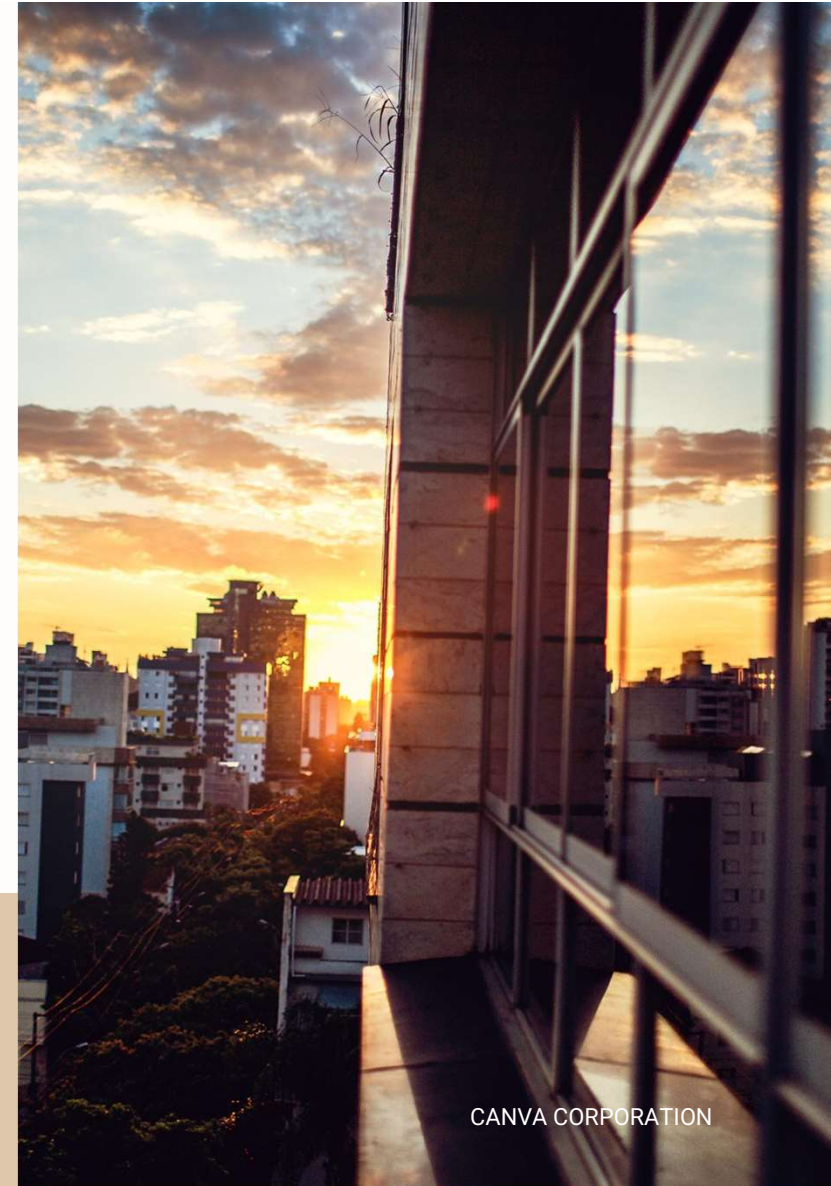# Next Steps

Next Steps

1 – Refine Financial Metrics

- DVD Sales
- Streaming Sales
- Multiple Releases
- Intangible Assets

2 – Other Attributes

- Genre
- Movie Studio
- Language

3 – Other Relationships and Models
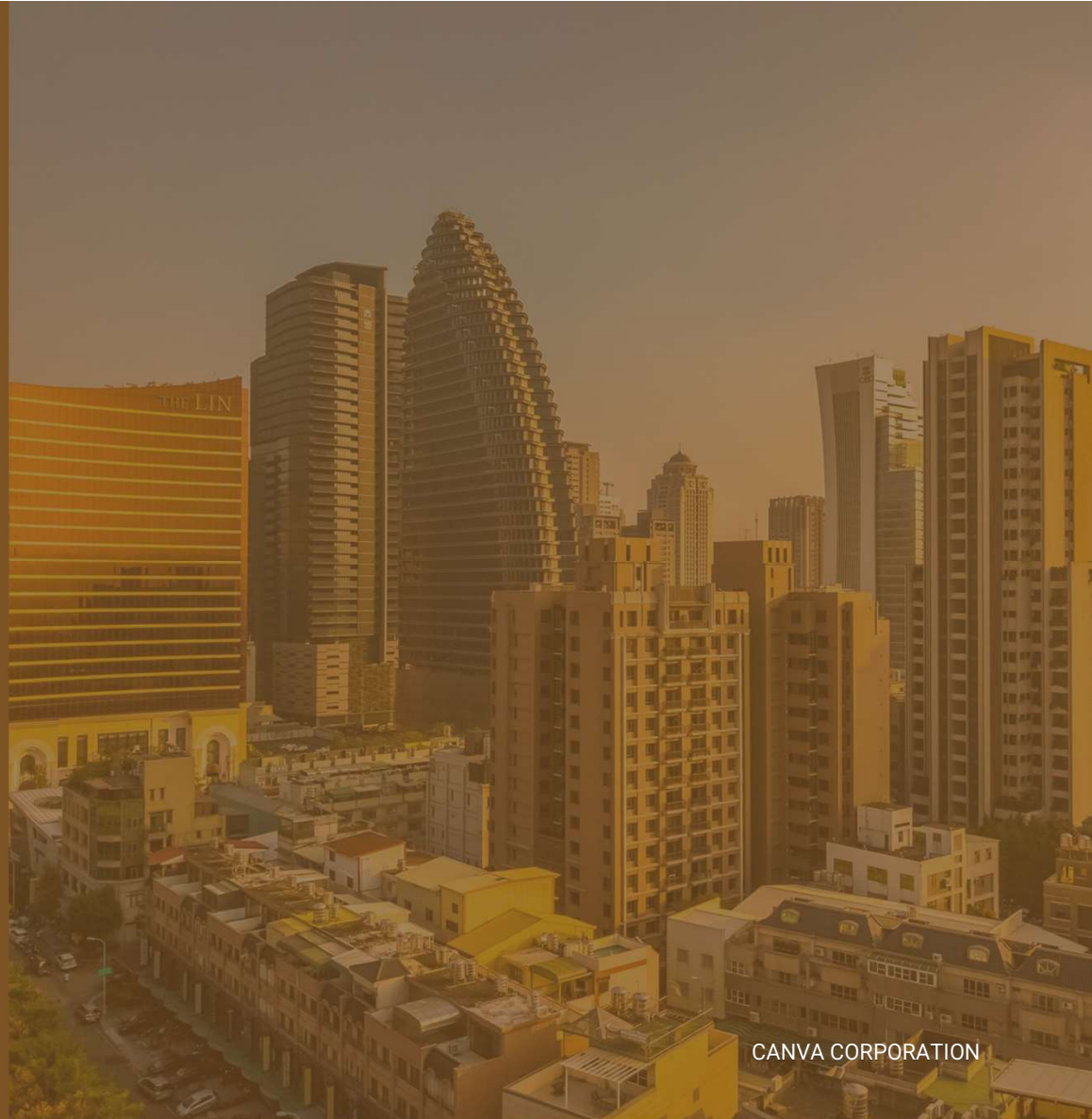
- Logistic Regression

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06

Appendix

Appendix

- *What is the Most Profitable Movie Ever? -* What Is the Most Profitable Movie Ever? (hollywoodreporter.com)

- Blade (Wikipedia) - Blade (franchise) - Wikipedia

- Internet Movie Database (IMDb) - IMDb: Ratings, Reviews, and Where to Watch the Best Movies & TV Shows

- Box Office Mojo - Home - Box Office Mojo

- Rotten Tomatos - Rotten Tomatoes: Movies | TV Shows | Movie Trailers | Reviews | Rotten Tomatoes

- The Movie Database - The Movie Database (TMDB) (themoviedb.org)

- The Numbers - The Numbers - Where Data and the Movie Business Meet (the-numbers.com)