Movie Lens - Business Report

MovieLens is a company in the internet and entertainment domain providing an online database of information related to films, television series, and online streaming content including cast, production crew, trivia, ratings, fan, and critical reviews. Every year in collaboration with a guest curator, MovieLens publish their annual insights based on a theme providing a comprehensive view of a topic. The company is planning to bring out the "Movie Talkies: Classic" edition this year. The idea is to connect with viewers who have strong movie preferences as well as promote classic movies to attract newer customers and expand their viewer base.

Project Questions:

Question 1: How many movies were released until 2000? How many distinct genres have come up till the year 2020?

Answer:

Creating a card visual to display the Total number of movies released and Total number of distinct Genres separately

1.1 Total number of movies released untill the year 2000	1.2 Total Number of Distinct Genres till 2020
3883	301

explanation – There are in total 3883 movies that were released along with 301 distinct Genres.

Question 2. How many users are part of the MovieLens community, and what is the gender diversity in this community?
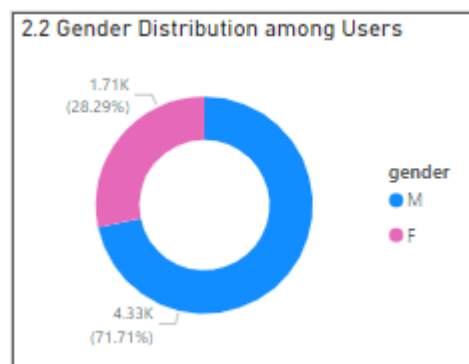
Answer:

Creating a card visual to display the Total number of users who are a part of the Movie Lens Community

2.1 Total number of users who are a part of the movie lens community

6040

explanation– There are in total 6040 users who are a part of the MovieLens Community.

**Creating a Donut Chart to display the gender diversity in this community**

2.2 Gender Distribution among Users

1.71K (28.29%)

gender
● M
● F

4.33K (71.71%)

explanation – There are 1.71k female and 4.33k male who are using this MovieLens community.
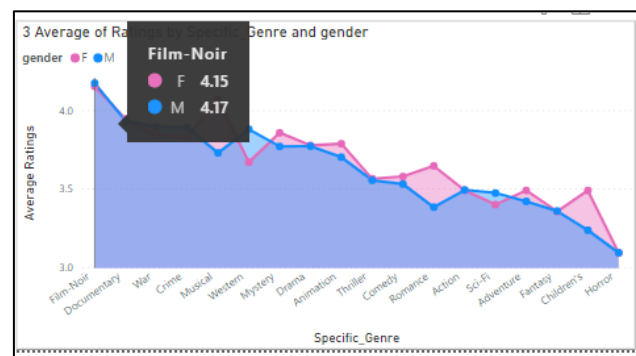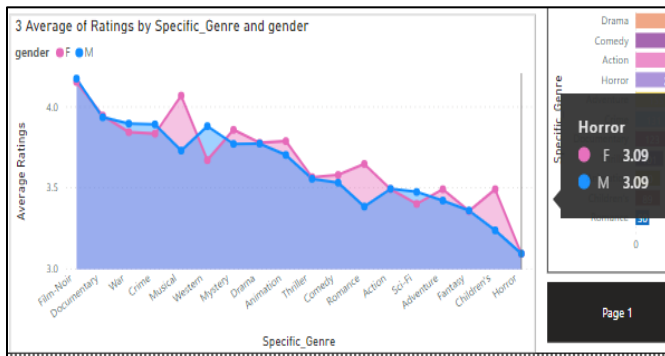
Question 3. What are the genre preferences of different genders, highlighting user engagement?

Answer:

Creating an Area Chart to represent the genre preferences of different gender thereby highlighting the user engagement.

3 Average of Ratings by Specific_Genre and gender
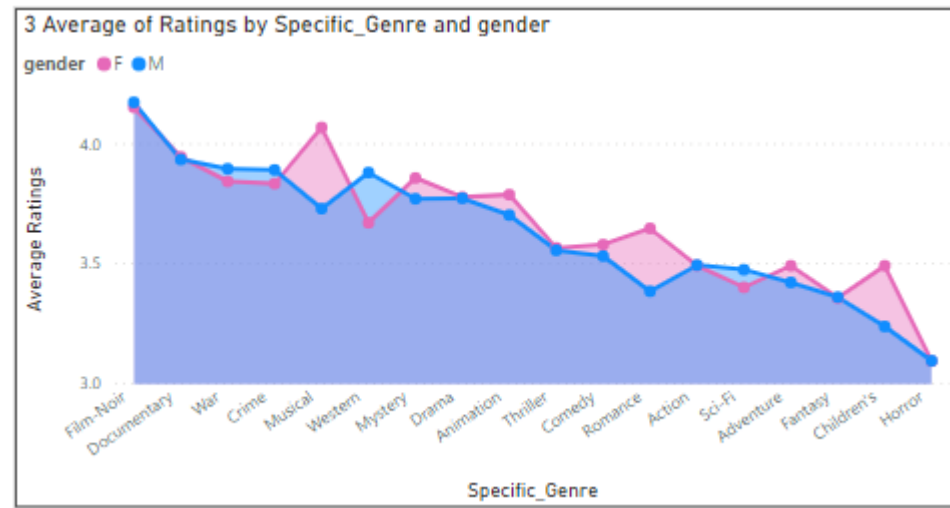
explanation –

- The highest genre preference for both Male and Female users is Film-Noir, whereas.

- The lowest genre preference for both Male and Female users are Horror movies.

Question 4. What's the average user rating for classic movies, reflecting overall reception? How does the distribution of movies vary across different genres?

Answer:

Creating a Gauge chart to show the Average Rating for the classic movies wrt the Maximum Rating.

4.1 Average Ratings vs Maximum Rating
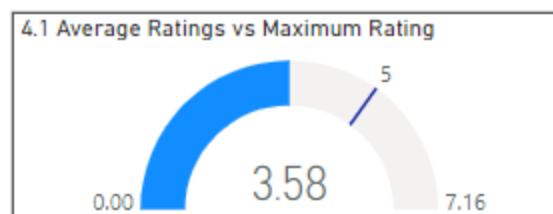
explanation – The average rating for classic movies is 3.58, which is almost close to the Maximum rating. The movies have received not too bad rating on an average.

Answer:

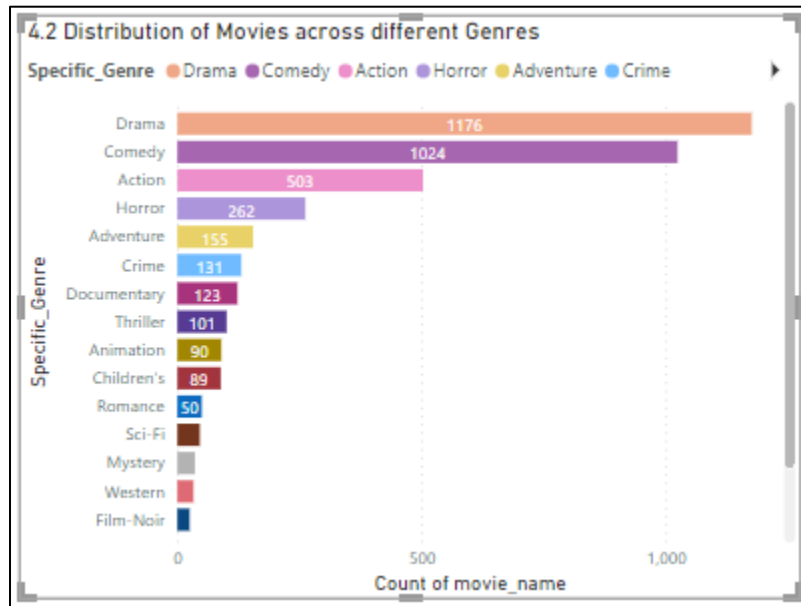**Creating a Stacked Bar Chart to show the distribution of the movies across different genres**

4.2 Distribution of Movies across different Genres

Specific_Genre ●Drama ●Comedy ●Action ●Horror ●Adventure ●Crime

| Specific_Genre	Count of movie_name
Drama	1176
Comedy	1024
Action	503
Horror	262
Adventure	155
Crime	131
Documentary	123
Thriller	101
Animation	90
Children's	89
Romance	50
Sci-Fi	
Mystery	
Western	
Film-Noir	

explanation –

- The greatest number of movies are of the genre Drama.
- Drama & Comedy tops the list of movies.
- The least number of movies are of the genres Romance, Sci-Fi, Mystery, Western and Film-Noir.

Note :

1. **We have added 1 Slicer in this Page named "Decade" to navigate across various decades in this page, thereby providing us with a clear representation of a particular decade.**

Decades

| 1920s | 1950s | 1980s |
| 1930s | 1960s | 1990s |
| 1940s | 1970s | |
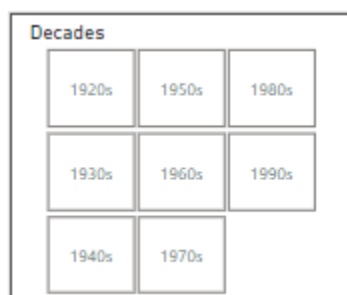
2. **We have also added a bookmark navigator to navigate through the pages. Currently this are all the analysis that have been made in Page 1.**

Page 1 | Page 2 | Page 3

Question 5: How does the demographic distribution of the users look like across gender? Where do these users live?

Answer:

Creating two visuals: 5.1. Clustered Column Chart to display the demographic distribution of users across gender.

5.1 Demographic distribution of users across gender
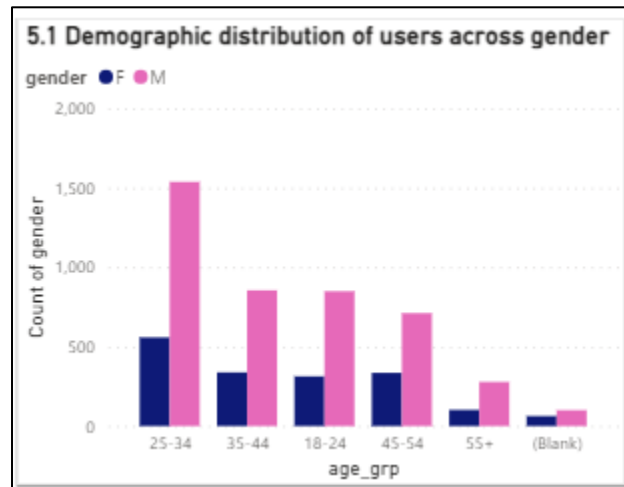
explanation–

- The distribution of male users across the ages is positively skewed.
- The distribution of female users is less in quantity and almost evenly distributed across ages.
- For both male and female, the age-group of 25-34 years has the maximum engagement in terms of giving ratings, followed by 35-44 years. People below the age of 18 for both the genders gave the least number of rating.

5.2. A map chart with bubbles to visualize the location of the users and, bubbles indicating the number of users in each location.

5.2 Demographic distribution of users across globe
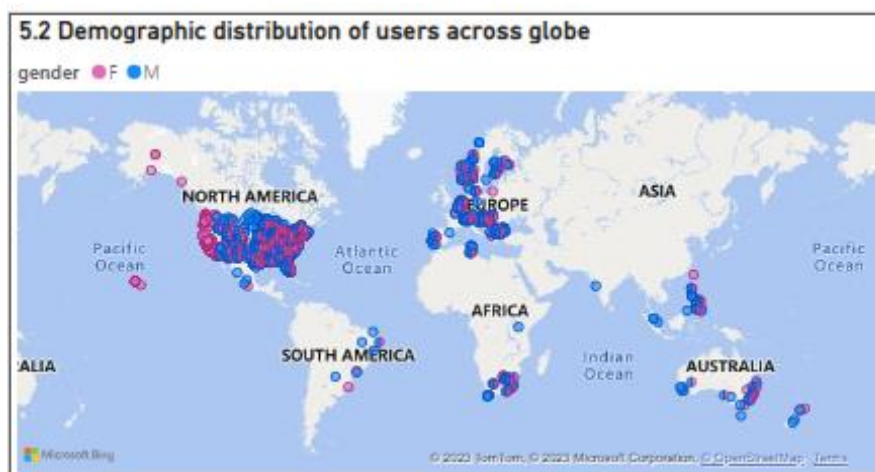
explanation –

- The visual map shows the people from North America are mostly involved in submitting their ratings, since we find a dense cluster in that continent.
- Followed by that we also find a less dense cluster in Europe, which shows European people are also quite engaging in giving their ratings.
- Small clusters across all other locations indicate few people engaged from such locations.

Question 6: How do users across different age groups and professions engage with classic movies, revealing generational interests?
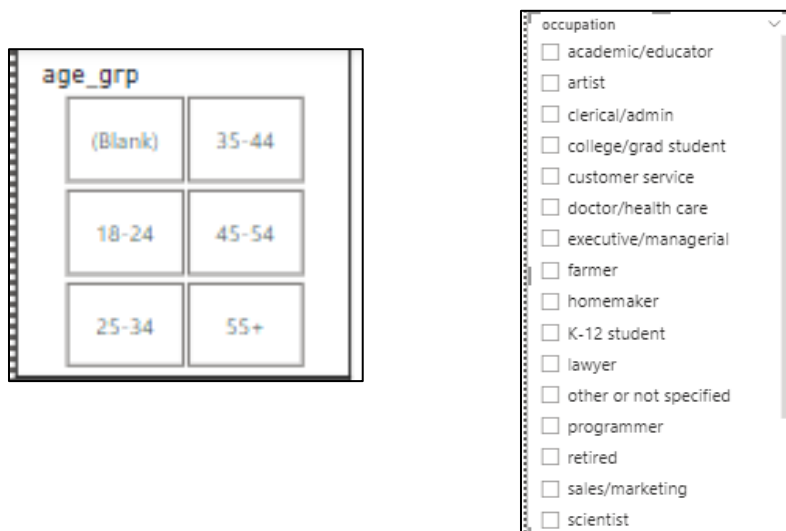
Answer:

We have created a matrix for this wherein we have compared the average ratings given by the users across different age group and profession.

6. Average Ratings across professions and age groups										
age_grp	academic/educator	artist	clerical/admin	college/grad student	customer service	doctor/health care	executive/managerial	farmer	homemaker	K-12 stud
18-24	3.37	3.44	3.62	3.53	3.62	3.24		3.64	3.52	3.79
25-34	3.53	3.53	3.58	3.55	3.61	3.61		3.53	3.59	3.61
35-44	3.55	3.55	3.70	3.69	3.39	3.75		3.59	2.64	3.58
45-54	3.71	3.84	3.76	3.58	3.45	3.71		3.70	3.53	3.89
55+	3.77	3.96	4.00		4.05	3.75		3.81	3.37	3.69

explanation –

- Farmers in the age group 35-44 has given the lowest ratings, that is 2.54.

- Clerical/admin, lawyer and customer service in the age group of 55 and above has given a rating of 4 above.

- Rest of the users of different professions and age group have given rating between 3 and 4.

Note: We have added two slicers in this page involving the above two questions, for occupation and age group to navigate across the various levels of the attributes and gain insights.

age_grp

(Blank)	35-44
18-24	45-54
25-34	55+

occupation

- [ ] academic/educator
- [ ] artist
- [ ] clerical/admin
- [ ] college/grad student
- [ ] customer service
- [ ] doctor/health care
- [ ] executive/managerial
- [ ] farmer
- [ ] homemaker
- [ ] K-12 student
- [ ] lawyer
- [ ] other or not specified
- [ ] programmer
- [ ] retired
- [ ] sales/marketing
- [ ] scientist

Question 7: Which classic movies and genres are top-rated? How do these ratings differ based on user age and occupation?

Answer: We tried to find out the top ten genres and top ten movies from the given data on the basis of average ratings using Tree Map. We used bookmarks in our report to toggle between the top GENRE and the MOVIES visuals. To see how these ratings, differ based on user age and occupation, we also used slicers for these categories.

7.2. Top 10 movies based on average rating

Baby, The	Gate of Heavenly Peace, The	Schlafes Br...	Smashing ...	Song of Fr...
Bittersweet Motel	Lured			
Follow the Bitch	One Little Indian	Ulysses (Ulisse)		

| Genres | **Movies** |

7.1. Top 10 genres based on average rating

Film-Noir	Crime	Mystery	Drama	Animation
Documentary	Musical			
War	Western	Thriller		

| **Genres** | Movies |

Slicer of Occupation and Age Group

Question 8: **Is there a link between user age and the ratings they provide for classic movies, providing insights into age-related viewing habits? How do the average ratings vary over the years based on the genre considered?**

Answer:

To find the relationship between age group and average rating, we have constructed a scattered chart. And to interpret the variation of average ratings over the years considering genres we have constructed a stacked bar chart. Additionally we also added slicers for decades and movie genres.

8.1 Relation between Age_Group and Average Rating
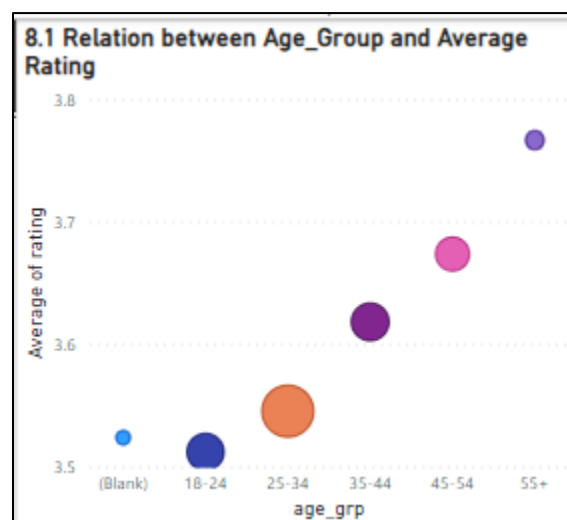
explanation –

- Age group of 55+ has given the most ratings in this community.
- Whereas the age group of 18-24 has given the least rating.

8.2 Average rating by Decades and Specific_Genre

Specific_Genre ●Action ●Adventure ●Animation ●Children's ●Comedy ●Crime ●Documentary ●Drama ●Fantasy ●Film-Noir ▶
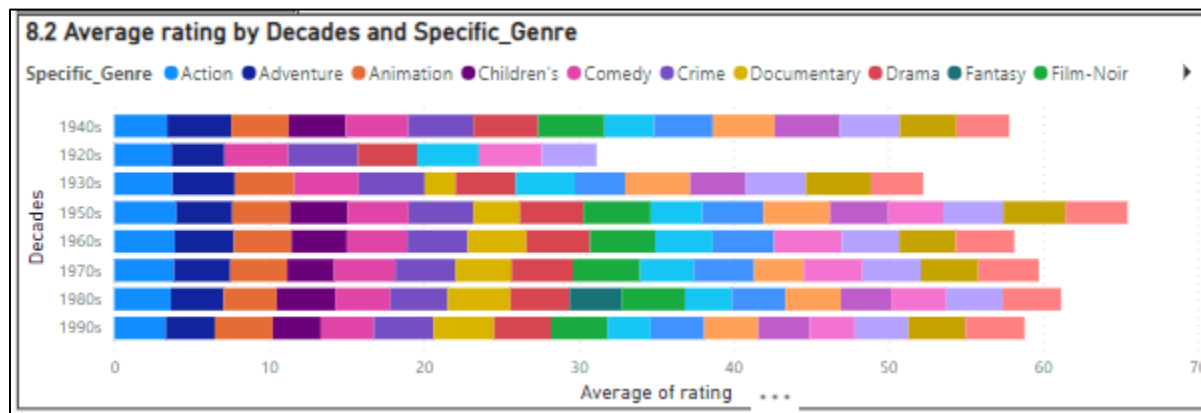
explanation –

- The genre of Action and Adventure in movies are present in all the decades.
- The fantasy genre is present only in the 1980s decade.
- The movies from the decade 1950s have the highest number of ratings.

Slicer of Decades and Specific genre

Decades

| 1920s | 1930s | 1940s | 1950s | 1960s | 1970s | 1980s | 1990s |

Specific_Genre

☐ Action
☐ Adventure
☐ Animation
☐ Children's
☐ Comedy
☐ Crime
☐ Documentary
☐ Drama
☐ Fantasy

Page Navigation

| Page 1 | Page 2 | Page 3 |

Note: At the end of the project paste all your reports as shown below:

<mark>PAGE 1</mark>

<mark>PAGE 2</mark>

PAGE 3 with Genre Bookmark

Decades

| 1920s | 1930s | 1940s | 1950s | 1960s | 1970s | 1980s | 1990s |

Specific_Genre

- ☐ Action
- ☐ Adventure
- ☐ Animation
- ☐ Children's
- ☐ Comedy
- ☐ Crime
- ☐ Documentary
- ☐ Drama
- ☐ Fantasy

7.2. Top 10 movies based on average rating

Baby, The
Gate of Heavenly Peace, The
Schlafes Br...
Smashing ...
Song of Fr...
Bittersweet Motel
Lured
Follow the Bitch
One Little Indian
Ulysses (Ulisse)

8.1 Relation between Age_Group and Average Rating

Average of rating vs age_grp: (Blank), 18-24, 25-34, 35-44, 45-54, 55+

8.2 Average rating by Decades and Specific_Genre

Specific_Genre ●Action ●Adventure ●Animation ●Children's ●Comedy ●Crime ●Documentary ●Drama ●Fantasy ●Film-Noir ▶

Decades: 1940s, 1920s, 1930s, 1950s, 1960s, 1970s, 1980s, 1990s

Average of rating: 0, 10, 20, 30, 40, 50, 60, 70

occupation
- ☐ academic/educator
- ☐ artist
- ☐ clerical/admin
- ☐ college/grad student
- ☐ customer service
- ☐ doctor/health care
- ☐ executive/managerial
- ☐ farmer
- ☐ homemaker

age_grp
- ☐ (Blank)
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55+

| Genres | Movies | Page 1 | Page 2 | Page 3 |

Decades

| 1920s | 1930s | 1940s | 1950s | 1960s | 1970s | 1980s | 1990s |

Specific_Genre ∨

- ☐ Action
- ☐ Adventure
- ☐ Animation
- ☐ Children's
- ☐ Comedy
- ☐ Crime
- ☐ Documentary
- ☐ Drama
- ☐ Fantasy

7.1. Top 10 genres based on average rating

Film-Noir | Crime | Mystery | Drama | Animation
Documentary | Musical
War | Western
Thriller

8.1 Relation between Age_Group and Average Rating

Average of rating — age_grp: (Blank), 18-24, 25-34, 35-44, 45-54, 55+

8.2 Average rating by Decades and Specific_Genre

Specific_Genre ● Action ● Adventure ● Animation ● Children's ● Comedy ● Crime ● Documentary ● Drama ● Fantasy ● Film-Noir ▶

Decades: 1940s, 1920s, 1930s, 1950s, 1960s, 1970s, 1980s, 1990s

Average of rating — 0, 10, 20, 30, 40, 50, 60, 70

occupation ∨

- ☐ academic/educator
- ☐ artist
- ☐ clerical/admin
- ☐ college/grad student
- ☐ customer service
- ☐ doctor/health care
- ☐ executive/managerial
- ☐ farmer
- ☐ homemaker

age_grp

- ☐ (Blank)
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55+

| Genres | Movies | Page 1 | Page 2 | Page 3 |