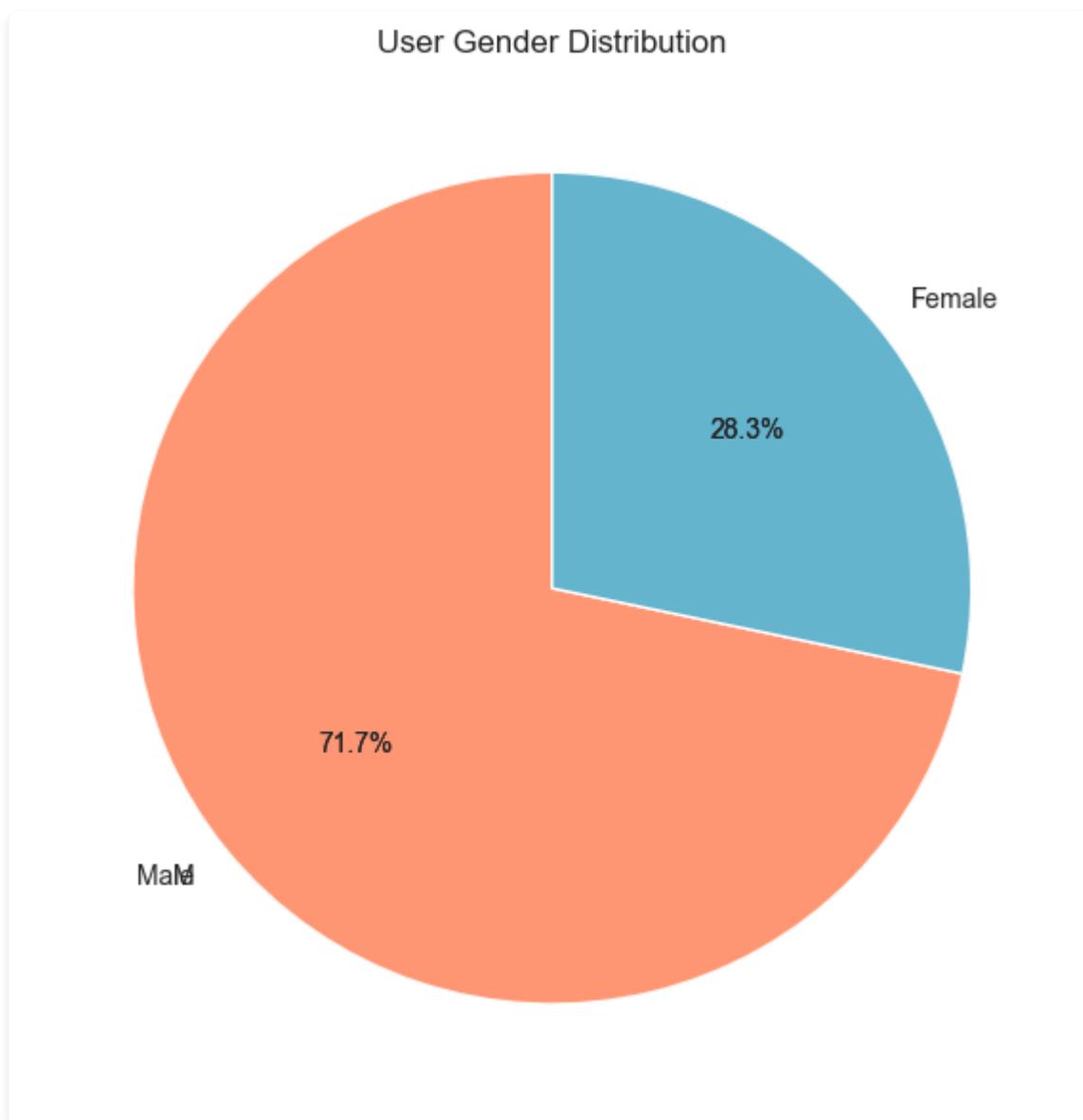


MovieLens Dataset User-Movie Preference Analysis Report

Data Overview

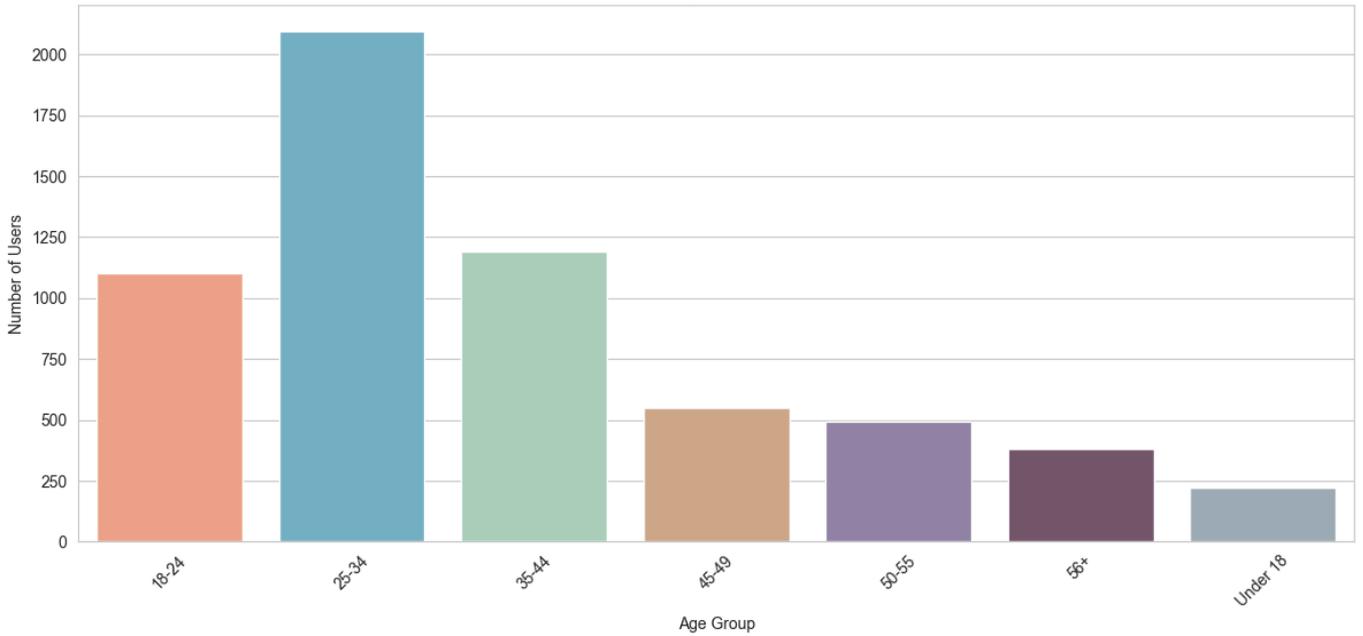
This analysis is based on the MovieLens dataset, containing 6040 users, 3883 movies and 1000209 original rating records.

User Profile Analysis



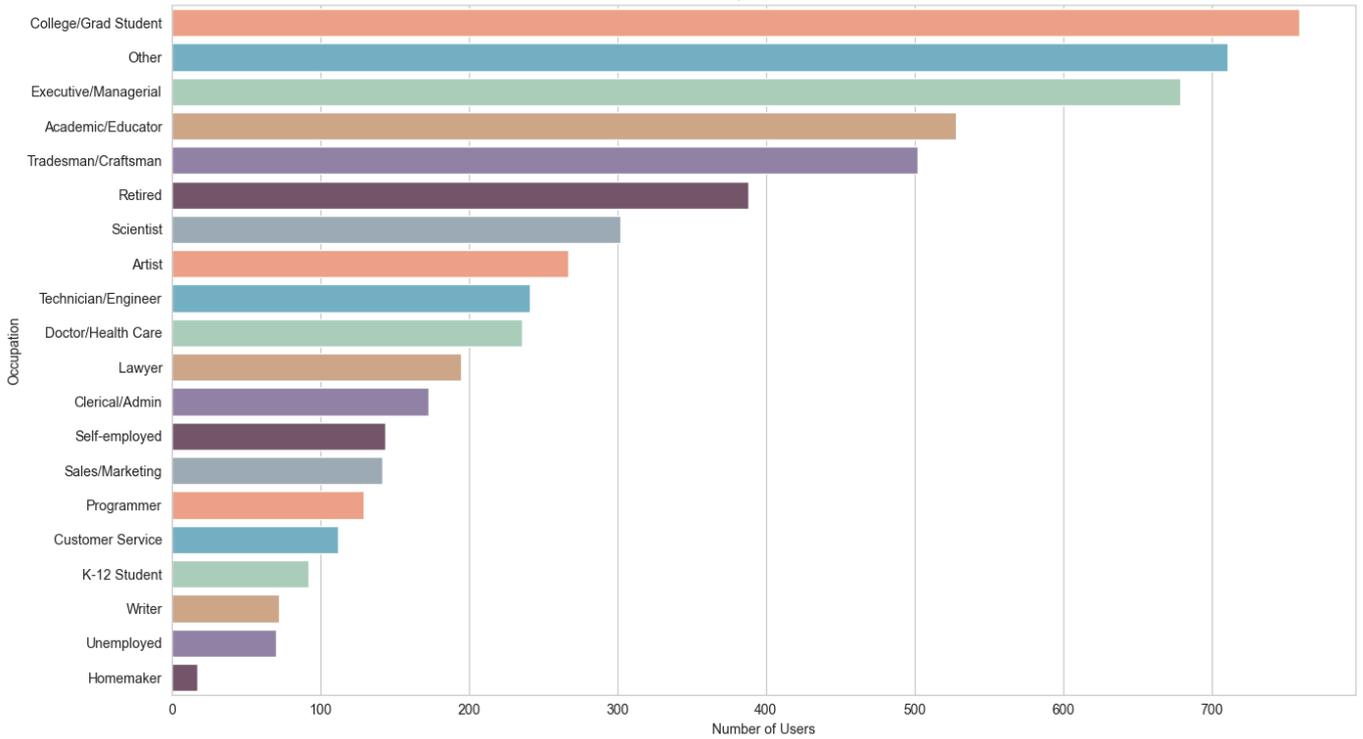
User Gender Distribution

User Age Distribution



User Age Distribution

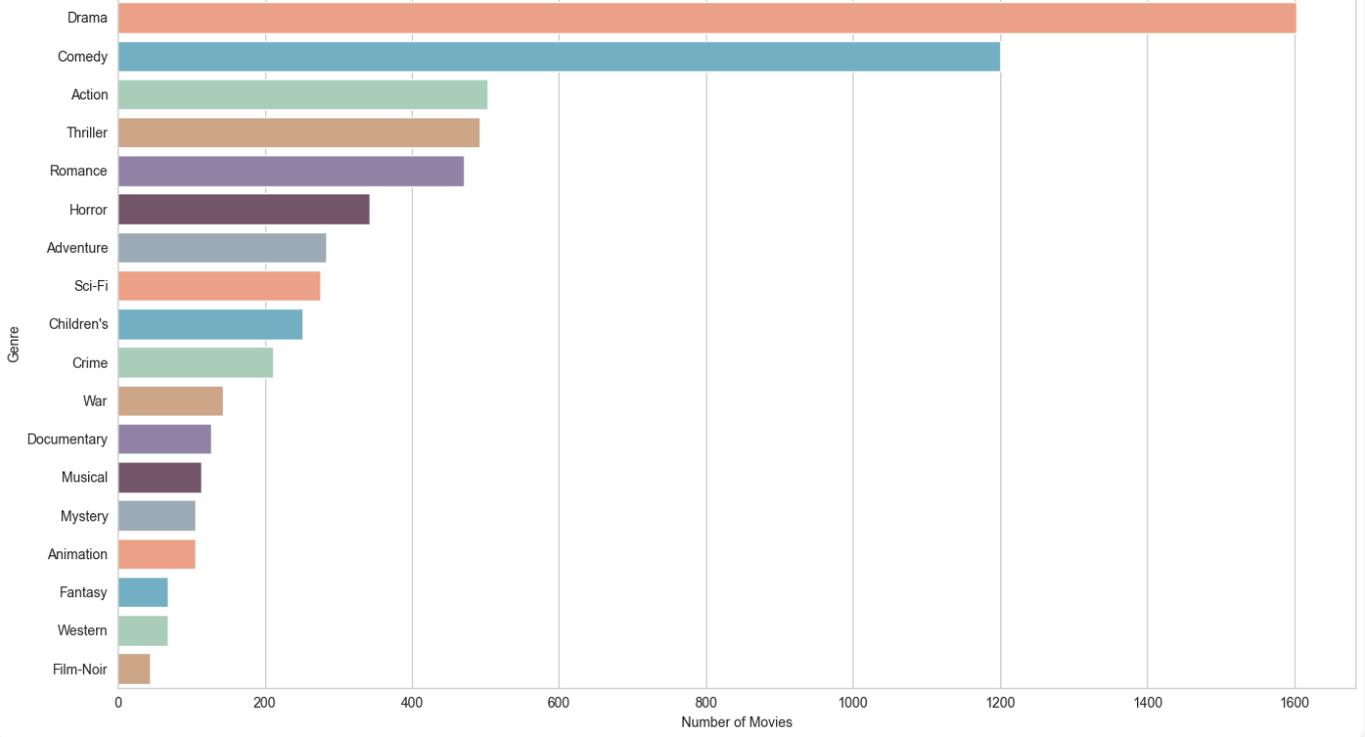
User Occupation Distribution



User Occupation Distribution

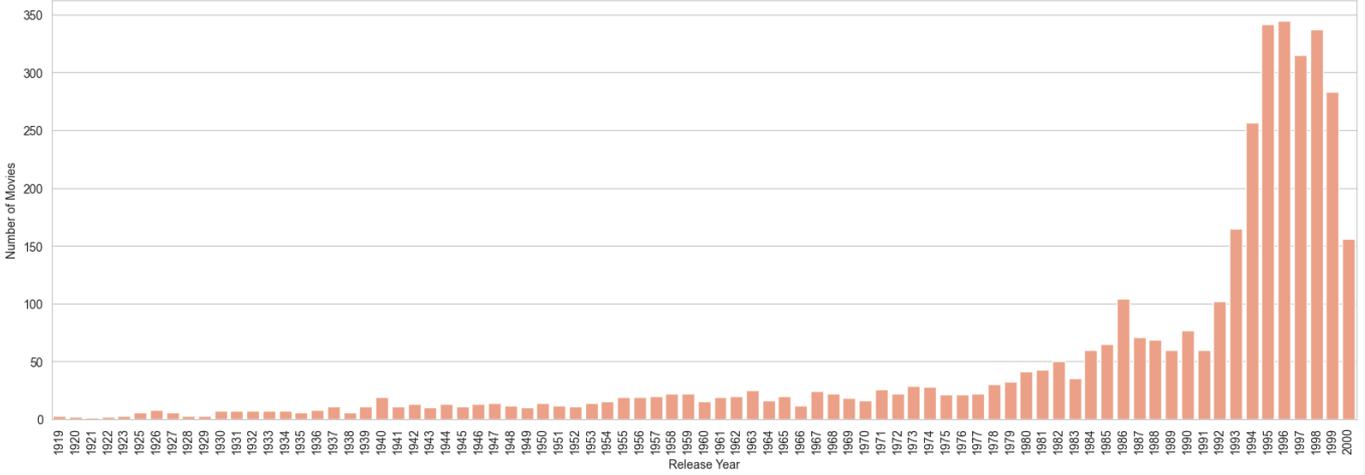
Movie Distribution Analysis

Movie Genre Distribution

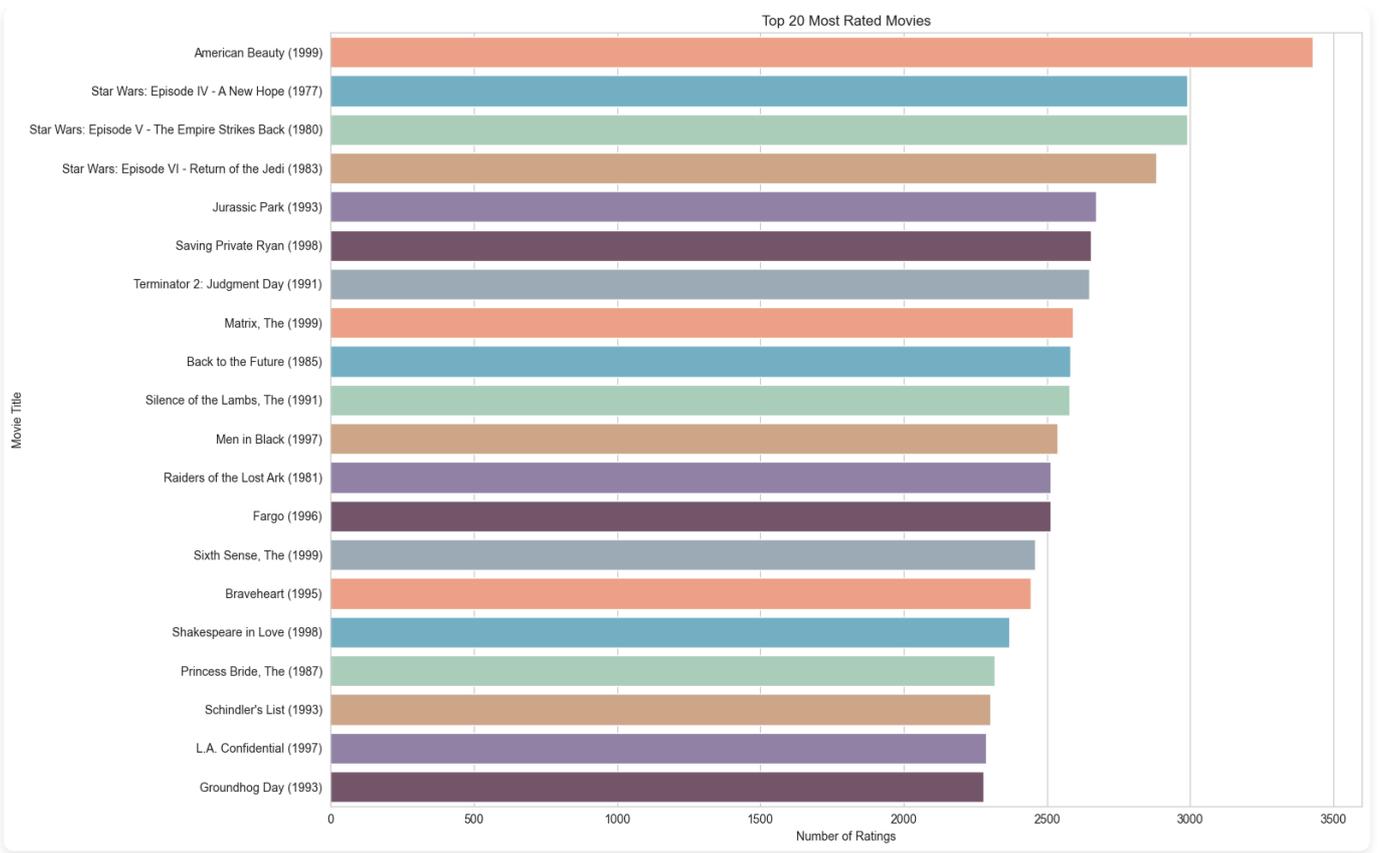


Movie Genre Distribution

Movie Release Year Distribution

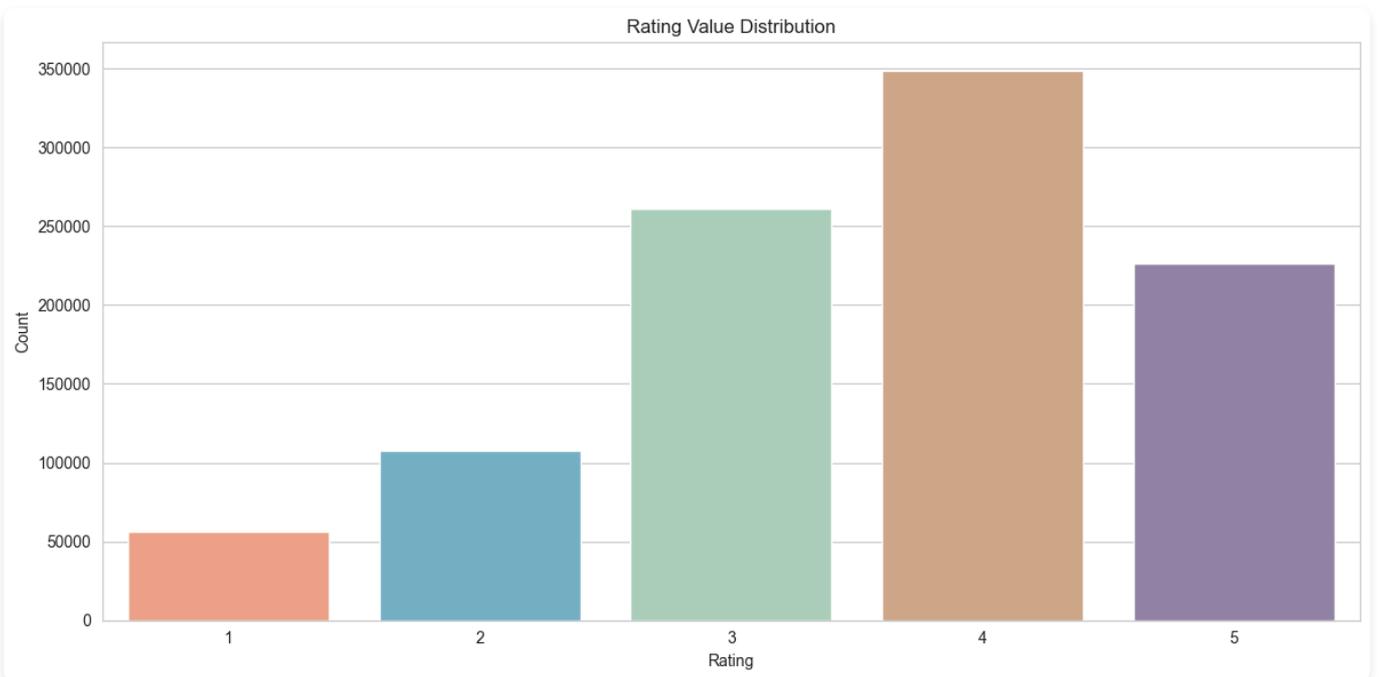


Movie Release Year Distribution

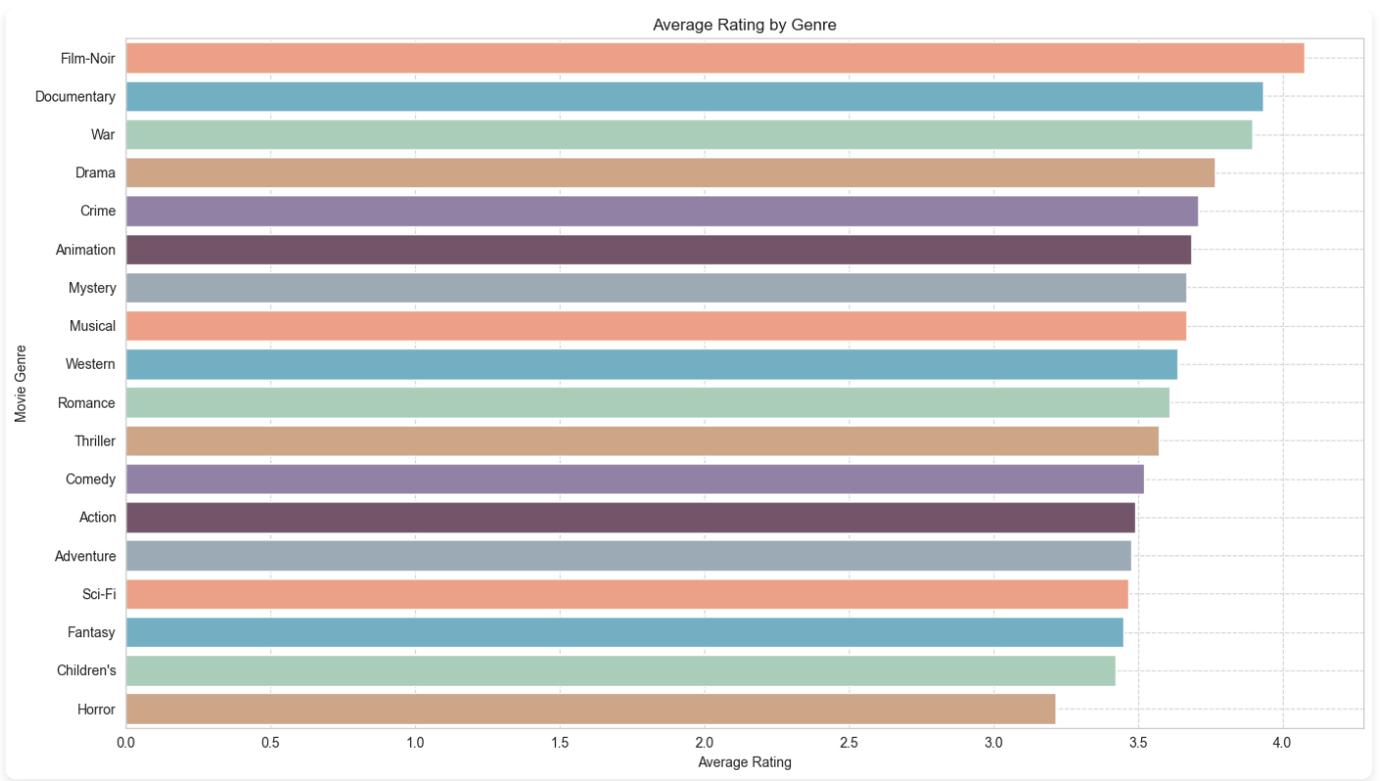


Top 20 Most Rated Movies

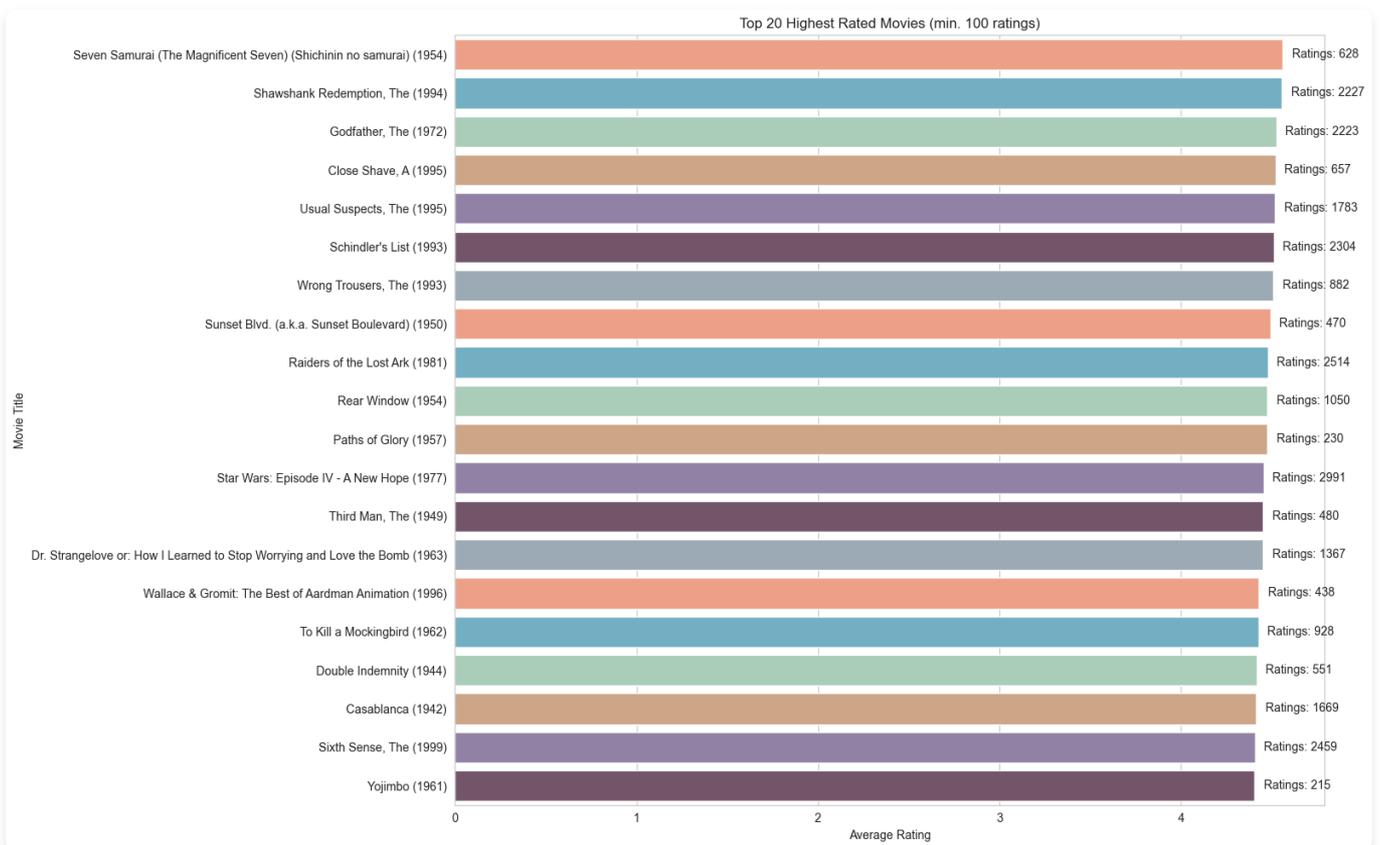
Rating Distribution Analysis



Rating Distribution



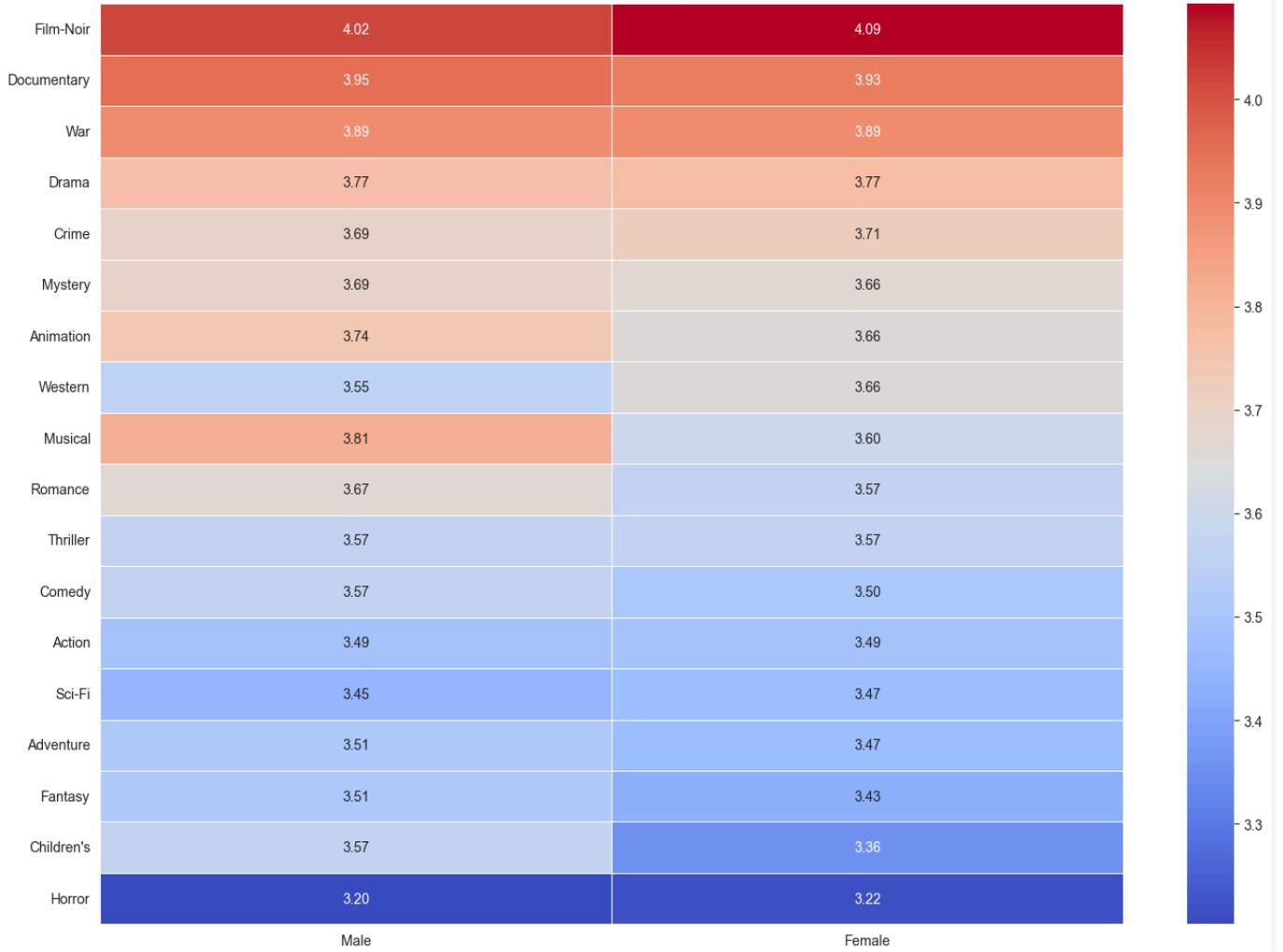
Average Rating by Movie Genre



Top 20 Highest Rated Movies (min. 100 ratings)

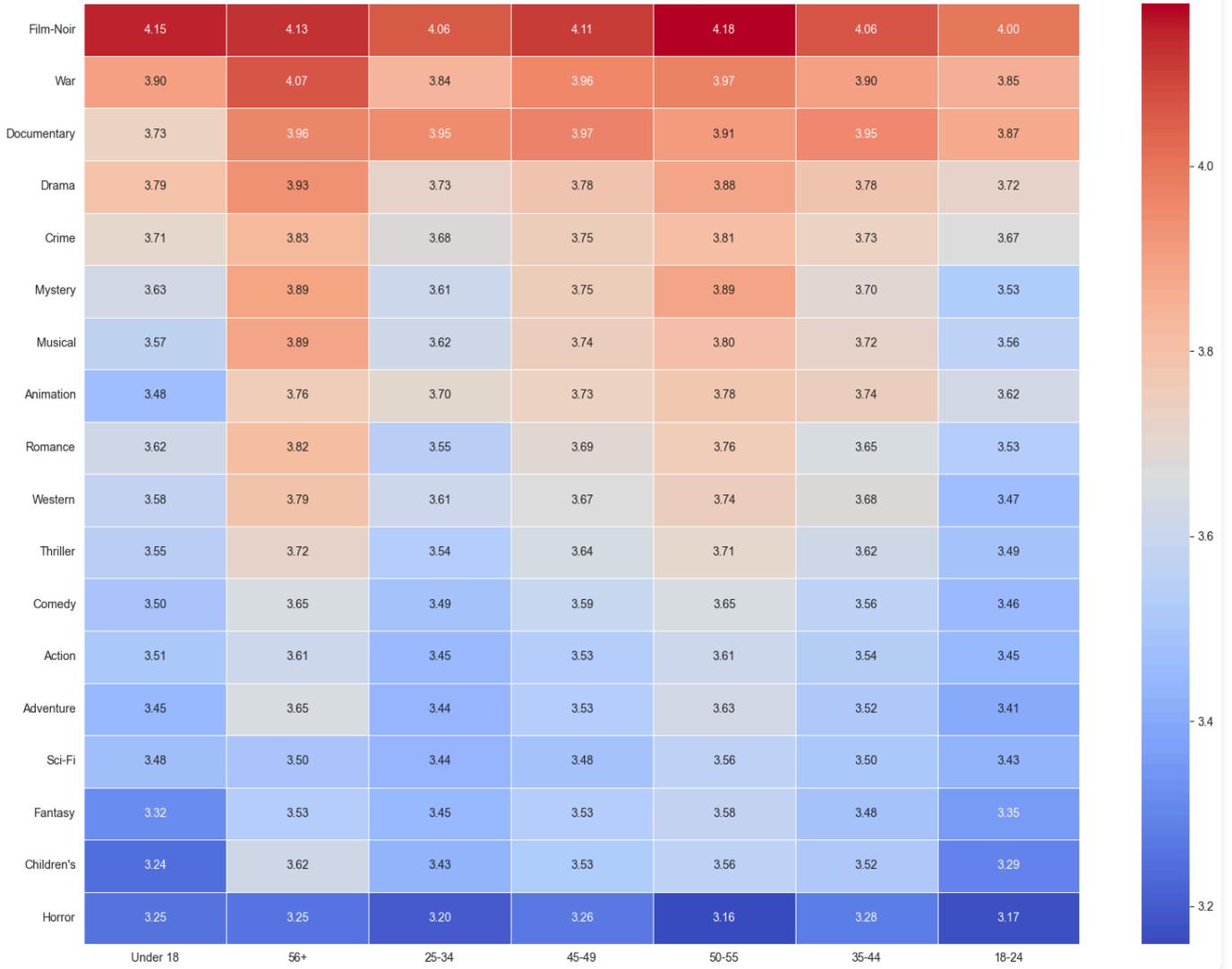
User Characteristics and Movie Preferences

Movie Genre Preferences by Gender

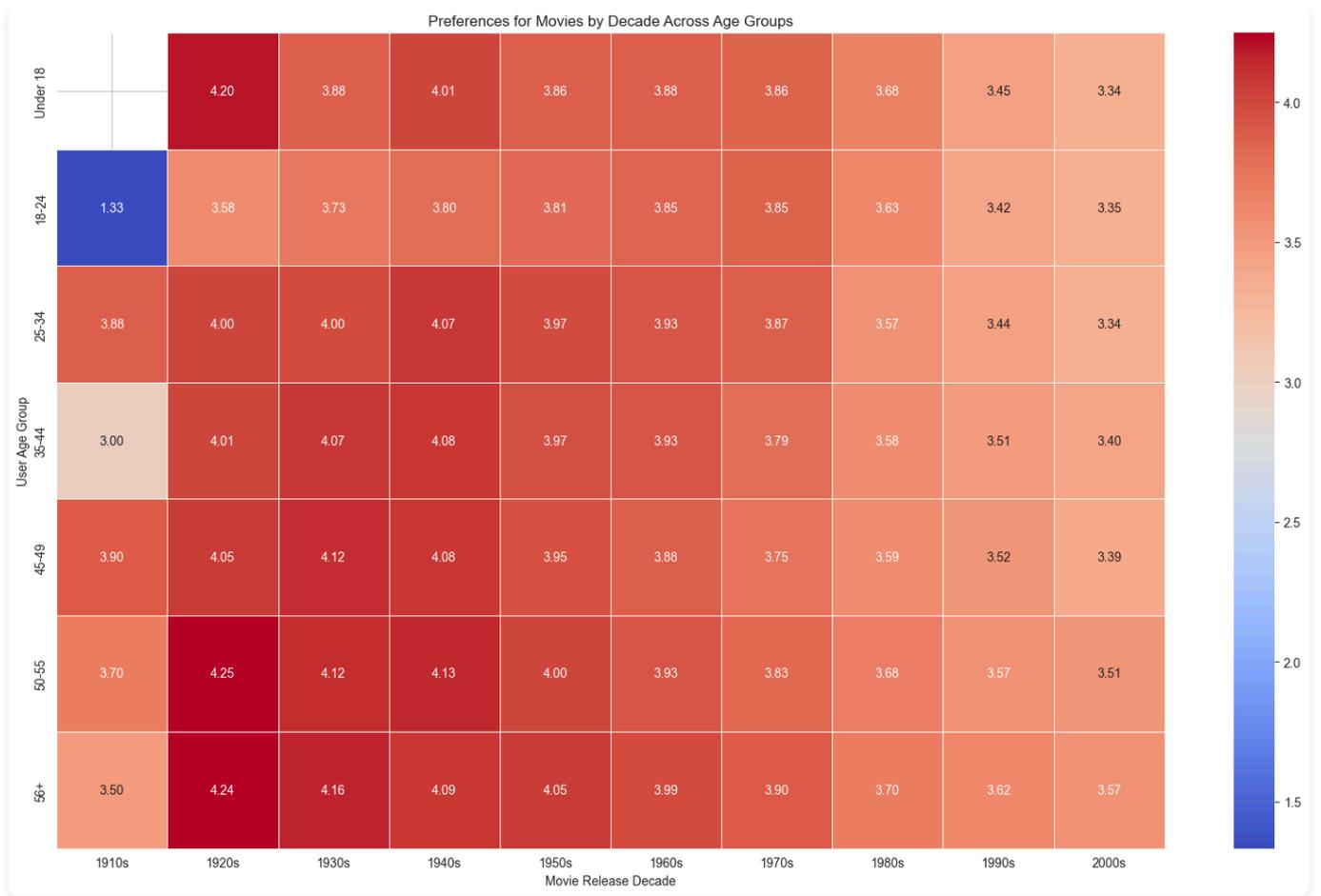


Movie Genre Preferences by Gender

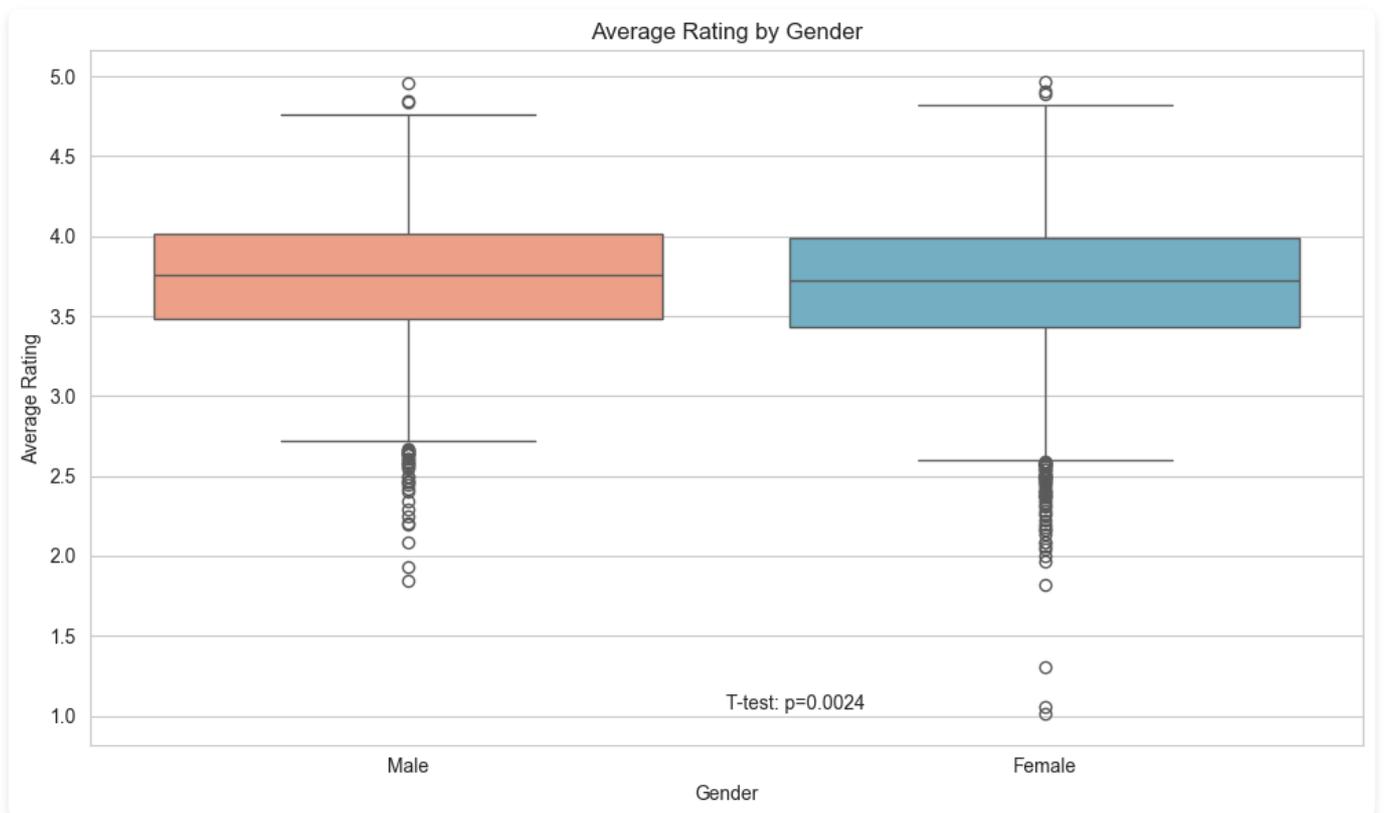
Movie Genre Preferences by Age Group



Movie Genre Preferences by Age Group



Preferences for Movies by Decade Across Age Groups



Average Rating by Gender

Conclusions and Insights

Through in-depth analysis of the MovieLens dataset, we found significant correlations between user characteristics (gender, age, occupation) and movie preferences. Key findings include:

- Significant differences in movie genre preferences between genders
- Age influences how users rate movies from different decades
- Occupational background correlates with genre preferences

These findings provide valuable reference for designing movie recommendation systems and developing movie marketing strategies.