Project 3

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Disk-based Data Analysis

**Introduction:**

IMDB is abbreviation for internet movie database, and it contains large information from 1925 about many different movies, tv series, videos, and documentaries such as the directors, actors, actresses, genres, rating, languages, region, and year. The data was structured in a relational schema with 9 tables, and each one has millions of rows. The analyses in this report will be using structured query language SQL as the tool to query and explore information from the IMDB database to study and compare the acting career of two actors and two actresses as well as find the actor and actress that have been in the most movies.

**Analysis:**

1. *Analysis 1:*
2. Span of acting career in years each actor or actress has been participating, and the total number of movies made in each year:

Tom Hanks: 1983:1, 1984:1, 1985:2, 1986:3, 1987:1, 1988:2, 1989:2, 1990:2, 1992:1, 1993:2, 1994:1, 1995:2, 1996:1, 1998:2, 1999:2, 2000:1, 2002:2, 2004:3, 2006:1, 2007:1, 2008:1, 2009:1, 2010:1, 2011:2, 2012:1, 2013:2, 2015:1, 2016:4, 2017:2, 2019:2, 2020:2, 2021:2, 2022:4, 2023:1.

Keanu Reeves: 1986:2, 1988:3, 1989:1, 1990:1, 1991:3, 1992:1, 1993:2, 1994:1, 1995:2, 1996:2, 1997:2, 1999:1, 2000:3, 2001:2, 2003:3, 2005:2, 2006:3, 2008:2, 2010:1, 2012:1, 2013:2, 2014:1, 2015:1, 2016:4, 2017:2, 2018:3, 2019:1, 2020:1, 2021:1, 2023:1.

Demi Moore: 1982:1, 1984:2, 1985:1, 1986:3, 1988:1, 1989:1, 1990:1, 1991:3, 1992:1, 1993:1, 1994:1, 1995:2, 1996:4, 1997:1, 2000:1, 2006:2, 2007:2, 2009:2, 2010:1, 2011:1, 2012:1, 2016:2, 2019:1, 2022:1.

Debbie Reynolds: 1952:1, 1953:3, 1954:2, 1955:2, 1956:2, 1957:1, 1958:1, 1959:4, 1960:1, 1961:2, 1963:2, 1964:2, 1966:1, 1967:1, 1968:1, 1971:1, 1973:1, 1996:1, 1998:2, 2008:1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Actor/ Actress** | **Tom Hanks**  **(Actor)** | **Keanu Reeves**  **(Actor)** | **Demi Moore**  **(Actress)** | **Debbie Reynolds**  **(Actress)** |
| Acting year | 1983-2023 | 1986-2023 | 1982-2022 | 1952-2008 |
| Span of acting career (years) | 40 | 37 | 40 | 56 |
| Acting years | 34 | 30 | 24 | 20 |
| Total movies | 59 | 55 | 37 | 32 |

**Table 1:** Summarize acting career of actors Tom Hanks, Keanu Reeves, and actresses Demi Moore and Debbie Reynolds.

From table 1, actress Debbie Reynolds has the longest acting career span of 56 years, however, her active acting years is only 20, and she has the lowest total number of movies made of 32. Actor Tom Hanks and actress Demi Moore both have 40 years of acting career span, and actor Keanu Reeves has 37 years in acting career span. Tom Hanks has the most active acting years and the highest total number of movies made of 59. Keanu Reeves only has 37 years in acting career but been in 55 movies total. In average, each actor and actress has been in 1 to 2 movies each active year, and rarely, they can make up to 4 movies in an active year.

1. Career progress of each actor and actress in different periods reflect by the total number of movies in any genre in those periods:

* Tom Hanks:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Period | 1983-1990 | 1991-2000 | 2001-2010 | 2011-2022 |
| Comedy movies | 13 | 6 | 6 | 7 |

**Table 2:** Total number of comedy movies actor Tom Hanks has acted in different periods.

**Graph 1:** Total number of comedy movies actor Tom Hanks has acted in different periods.

Actor Tom Hanks had a total of 32 comedy movies in his career, and he had been in more comedy movies at the beginning of his career, from 1983 to 1990. He appeared in about 6 comedy movies every 10 years after that, which was only half the number of movies in the first period, however, his acting career was very consistent.

* Keanu Reeves:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Keanu Reeves | 1986-1990 | 1991-2000 | 2001-2010 | 2011-2022 |
| Drama movies | 4 | 12 | 7 | 9 |

**Table 3:** Total number of drama movies actor Keanu Reeves has acted in different periods.

**Graph 2:** Total number of drama movies actor Keanu Reeves has acted in different periods.

Actor Keanu Reeves only had 4 drama movies in the first 5 years of his acting career. However, he had 12 drama movies in the next ten years after that, from 1991 to 2000. From 2001 to 2010, he acted in 7 drama movies, and consistent with 9 more movies from 2011 to present.

* Debbie Reynolds:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Debbie Reynolds | 1952-1962 | 1963-1973 | 1874-1984 | 1985-1995 | 1996-2008 |
| Comedy movies | 19 | 6 | 0 | 0 | 2 |

**Table 4:** Total number of comedy movies actress Debbie Reynolds has acted in different periods.

**Graph 3:** Total number of comedy movies actress Debbie Reynolds has acted in different periods.

Actress Debbie Reynolds had been acting for 56 years, however, most of the movies she was in were in her early career life. From 1952 to 1962, she acted in 19 comedy movies. She had 6 comedy movies in 10 years after that. She did not have any comedy movies for another 20 years, and only had 2 more from 1996 to 2008.

* Demi Moore:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Demi Moore | 1982-1990 | 1991-2000 | 2001-2010 | 2011-2022 |
| Drama movies | 6 | 10 | 7 | 4 |

**Table 4:** Total number of drama movies actress Demi Moore has acted in different periods.

**Graph 4:** Total number of drama movies actress Demi Moore has acted in different periods.

In early career, actress Demi Moore had 6 drama movies from 1982 to 1990. Her career was peak from 1991 to 2000 with 10 drama movies. She continued to act in 7 more drama movies in the next 10 years period and started acting less since 2011.

1. Compare the acting career life of the actors and actresses in different time periods:

**Graph 5:** Number of movies Tom Hanks, Keanu Reeves, and Demi Moore made in different periods of time.

From 1991 to 2000, Keanu Reeves had the most movies made comparing to actor Tom Hanks and actress Demi Moore. Actor Tom Hanks only acted in 6 movies, which was half the number of movies from actor Keanu Reeves. From 2001 to 2010, all three actors and actress made about the same number of movies, 6 or 7 movies for each. Actor Keanu Reeves again made the highest number of movies in the next 10 years period from 2011 to 2022. Actor Tom Hanks followed with 7 movies, and actress Demi Moore made less movies in the last period with 4 movies total.

1. *Analysis 2:*

**Name-id Name Year Movies**

nm1078702 Yumika Hayashi 1991-2000 120 //max for actress

nm0103977 Brahmanandam 1991-2000 331 //max for actor

nm0949098 Yumi Yoshiyuki 1994 26 //max for actress

nm0103977 Brahmanandam 1993 56 //max for actor

nm0996450 Afsaneh Bayegan 1991 4 //female first with 4 movies

nm0706787 Aishwarya Rai Bachchan 2000 4 //female last with 4 movies

nm0790858 Aashif Sheikh 1991 4 //male first with 4 movies

nm0474774 Akshay Kumar 2000 4 //male last with 4 movies

From the year 1991 to 2000, actress Yumika Hayashi made the highest number of 120 movies in total, and actor Brahmanandam made the highest number of 331 movies in total comparing to other actresses and actors in the same period. However, when comparing the total number of movies an actor or actress acted in each year from 1991 to 2000, actress Yumi Yoshiyuki had the highest number of 26 movies in 1994. Actor Brahmanandam not only appeared the most in the total number of movies from 1991 to 2000, but also in the one-year period of 56 movies in 1993.

Comparing actor and actress appeared in the minimum number of movies (at least 4) in 1 year period from 1991 to 2000, actress Afsaneh Bayegan was the first female, and actress Aishawarya Rai Bachchan was the last female that made the least, 4 movies, in 1991 and 2000 accordingly. Actor Aashif Sheikh was the first male, and actor Akshay Kumar was the last actor that had the least movies, 4, in 1991 and 2000.

**Conclusion:**

From analysis 1 and analysis 2, it seems that actors make more movies than actresses in their career lives. This could be because women start their career early, have kids, and then settle down with the family. It also because when women reach the age of 40, producers do not find the actresses attractive anymore and give the roles to younger looking female.

Results from analysis 1 and analysis 2 also show that famous actors and actresses did many movies but not as many as the ones that less popular such as Brahmanandam had the world record of 331 movies total in the 10 years period. Most popular actors such as Keanu Reeves can make 15 million dollars per movie, or Tom Hanks can make 35 million dollars per year, comparing to actor Brahmanandam, his net fortune is a lot less than the other two actors. The movies actor Keanu Reeves and Tom Hanks was in also took longer time to make, therefore, it could be the reason why they made less movies than actor Brahmanandam.

**References:**

https://www.washingtonpost.com/news/wonk/wp/2016/09/19/these-charts-reveal-how-bad-the-film-industrys-sexism-is/

<https://en.wikipedia.org/wiki/Brahmanandam>

<https://theopinionatedindian.com/entertainment/Brahmanandam%E2%80%99s-Net-Worth-Income-Salary-in-2022/cid7109092.htm>

<https://parade.com/1309778/jessicasager/keanu-reeves-net-worth/>

<https://www.celebritynetworth.com/richest-celebrities/actors/tom-hanks-net-worth/>