

Analysis of Entertainer data



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Problem Statement

The problem at hand is to analyze and interpret the career trajectories and life spans of entertainers based on a dataset that includes parameters such as birth year, gender, first breakthrough, first Oscar, year of last major work, and year of death. The goal is to identify trends and patterns that reveal the typical age at which entertainers achieve major career milestones, understand gender disparities within the industry, assess the average career longevity and lifespan of entertainers, and explore how these factors influence recognition and career duration. By addressing these aspects, the analysis aims to provide valuable insights into the dynamics of success and longevity in the entertainment industry, thereby informing career planning and advocating for more equitable opportunities.



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Sample Datasets

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Mount Google Drive

# Load CSV files into DataFrames
df1 = pd.read_excel('Entertainer - Basic Info.xlsx')
df2 = pd.read_excel('Entertainer - Breakthrough Info.xlsx')
df3 = pd.read_excel('Entertainer - Last work Info.xlsx')

# Inspect the DataFrames
print(df1.head())
print(df2.head())
print(df3.head())

print("df1 columns:", df1.columns)
print("df2 columns:", df2.columns)
print("df3 columns:", df3.columns)
```



	Entertainer	Gender (traditional)	Birth Year
0	Adele	F	1988
1	Angelina Jolie	F	1975
2	Aretha Franklin	F	1942
3	Bette Davis	F	1908
4	Betty White	F	1922

	Entertainer	Year of Breakthrough/#1 Hit/Award Nomination \
0	Adele	2008
1	Angelina Jolie	1999
2	Aretha Franklin	1967
3	Bette Davis	1934
4	Betty White	1952

	Breakthrough Name	Year of First Oscar/Grammy/Emmy
0	19	2009.0
1	Girl, Interrupted	1999.0
2	I Never Loved a Man (The Way I Love You)	1968.0
3	Of Human Bondage	1935.0
4	Life with Elilizabeth	1976.0

	Entertainer	Year of Last Major Work (arguable)	Year of Death
0	Adele	2016	NaN
1	Angelina Jolie	2016	NaN
2	Aretha Franklin	2014	NaN
3	Bette Davis	1989	1989.0
4	Betty White	2016	NaN

Creating Subplots

```
# Create subplots
fig, axs = plt.subplots(2, 2, figsize=(18, 12))

# Breakthrough trends (Bar chart)
axs[0, 0].bar(breakthrough_trends.index, breakthrough_trends.values, color='blue')
axs[0, 0].set_title('Breakthrough Trends by Year')
axs[0, 0].set_xlabel('Year of Breakthrough')
axs[0, 0].set_ylabel('Number of Entertainers')
axs[0, 0].tick_params(axis='x', rotation=45)
axs[0, 0].grid(True)

# Oscar trends (Line chart)
axs[0, 1].plot(oscar_trends.index, oscar_trends.values, marker='o', linestyle='--', color='green')
axs[0, 1].set_title('Oscar Trends by Year')
axs[0, 1].set_xlabel('Year of First Oscar')
axs[0, 1].set_ylabel('Number of Entertainers')
axs[0, 1].tick_params(axis='x', rotation=45)
axs[0, 1].grid(True)

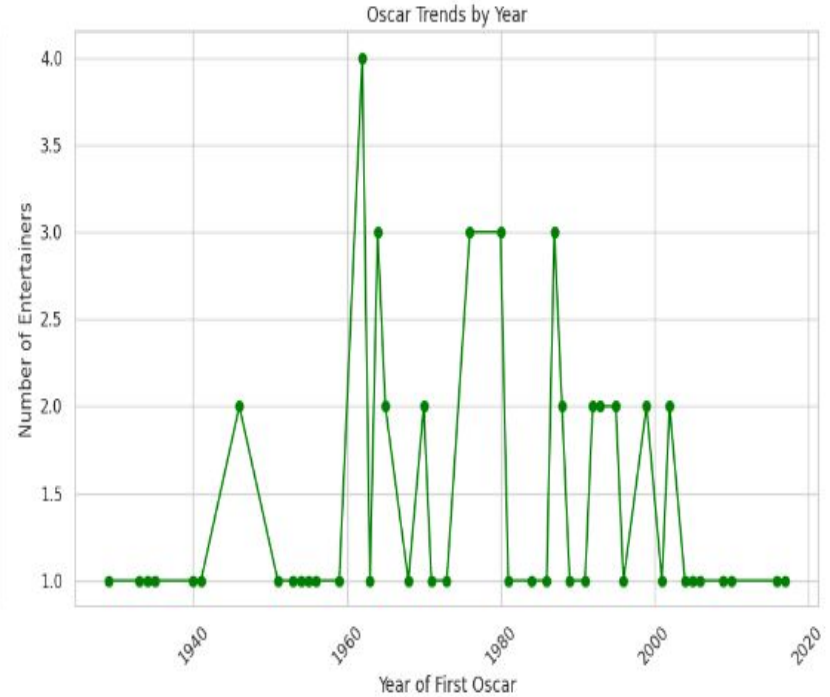
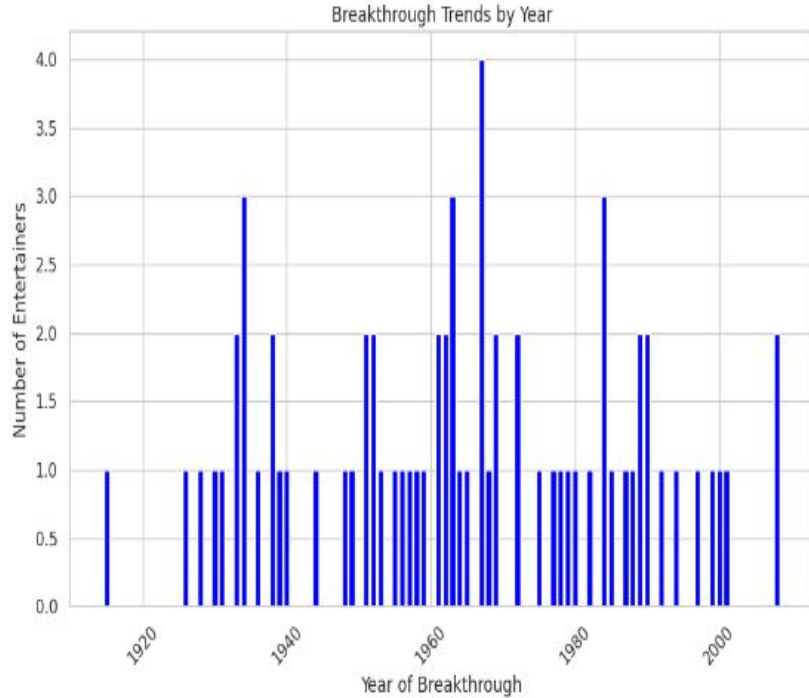
# Last major work trends (Bar chart)
axs[1, 0].bar(last_major_work_trends.index, last_major_work_trends.values, color='red')
axs[1, 0].set_title('Last Major Work Trends by Year')
axs[1, 0].set_xlabel('Year of Last Major Work')
axs[1, 0].set_ylabel('Number of Entertainers')
axs[1, 0].tick_params(axis='x', rotation=45)
axs[1, 0].grid(True)

# Death trends (Line chart)
axs[1, 1].plot(death_trends.index, death_trends.values, marker='o', linestyle='--', color='purple')
axs[1, 1].set_title('Death Trends by Year')
axs[1, 1].set_xlabel('Year of Death')
axs[1, 1].set_ylabel('Number of Entertainers')
axs[1, 1].tick_params(axis='x', rotation=45)
axs[1, 1].grid(True)

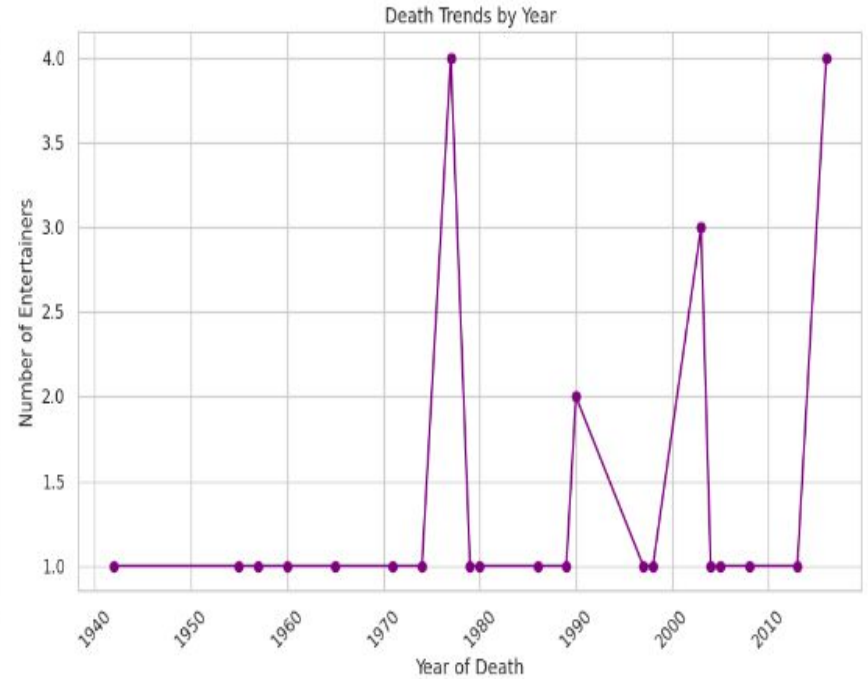
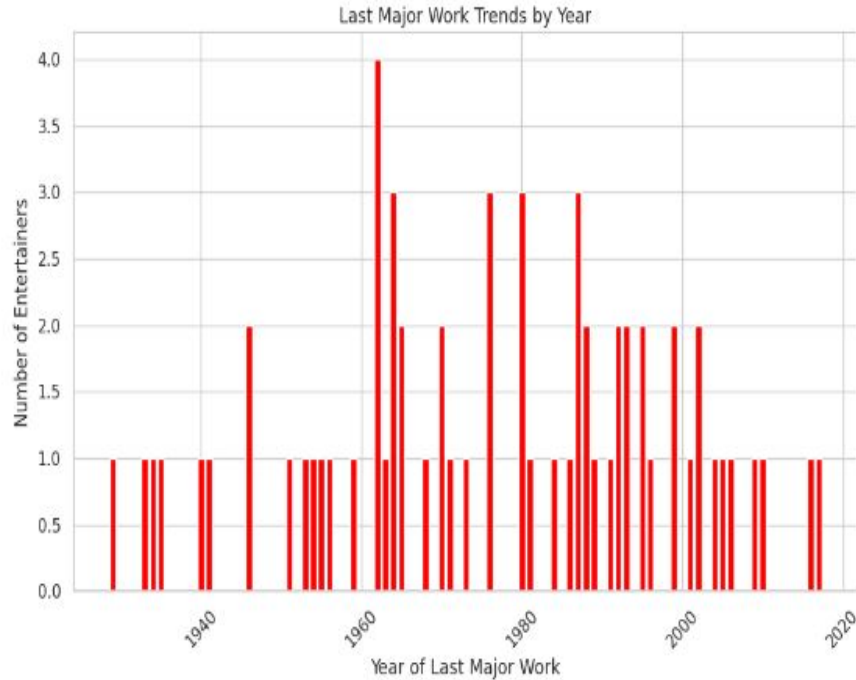
# Adjust layout
plt.tight_layout()

# Show the plots
plt.show()
```

Breakthrough and oscar trends by Year



Last major works and death trends by year





Analysing Career life Span

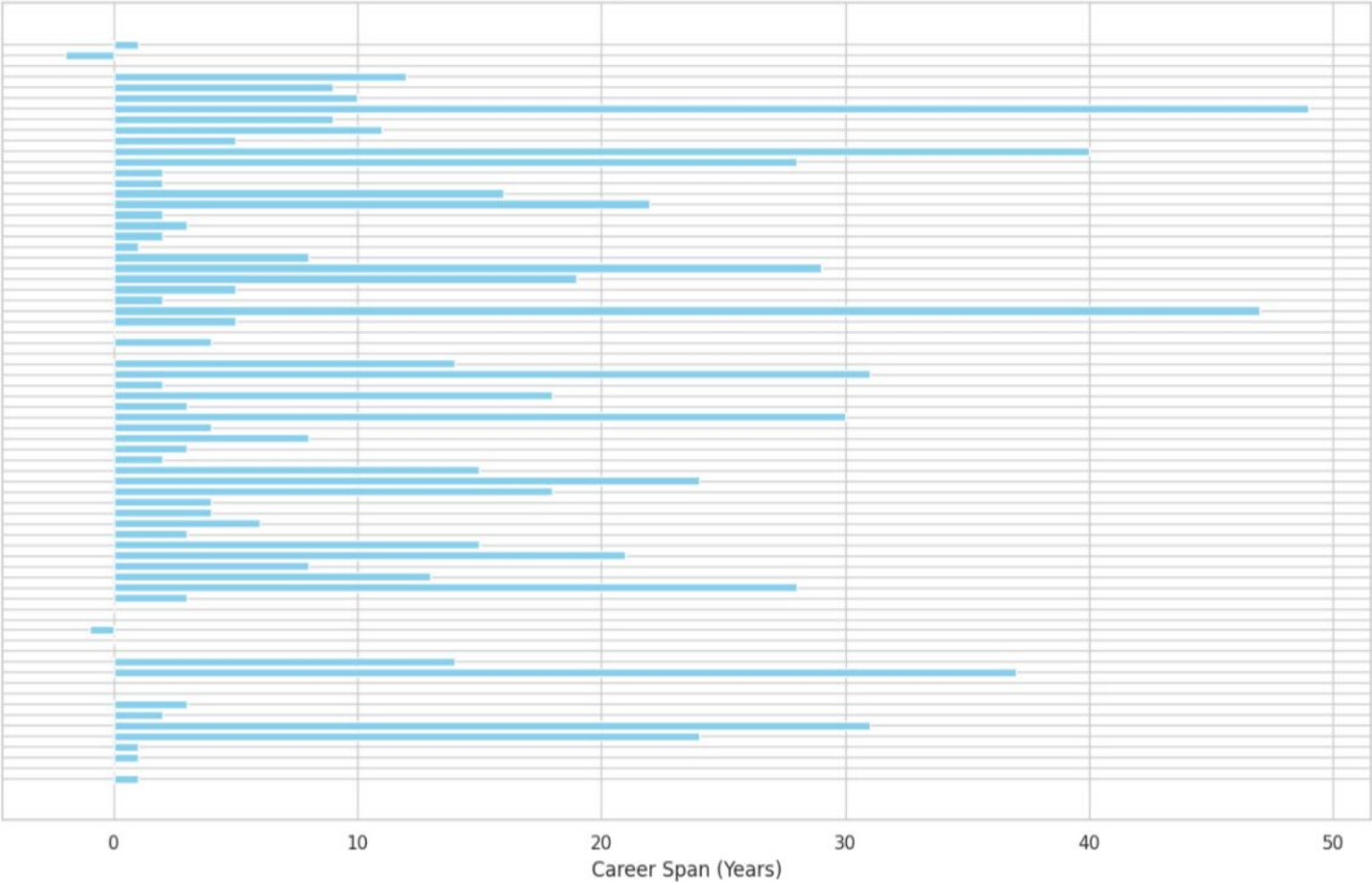
```
sns.set(style="whitegrid")

# Create a bar chart for career spans
plt.figure(figsize=(14, 8))
plt.barh(merged_df['Entertainer'], merged_df['Career Span'], color='skyblue')
plt.title('Career Span of Each Entertainer')
plt.xlabel('Career Span (Years)')
plt.ylabel('Entertainer')
plt.tight_layout()
plt.show()
```


Career Span of Each Entertainer

Entertainer

Willie Nelson
Willie Nelson
Wayne Newton
John Belushi
John Belushi
Stevie Wonder
Sidney Poitier
Robert Redford
Peter Onorati
Paul Newman
Paul Simon
Morgan Freeman
Mickey Rourke
Mary McCormack
Marlon Brando
Marlon Brando
Louis Armstrong
Leonard Cohen
Leonard Cohen
Kiefer Sutherland
Kiefer Sutherland
Katherine Hepburn
Justin Timberlake
Johnny Cash
John Wayne
John Wayne
Joan Crawford
Jimmy Stewart
Jimmy Stewart
Jennifer Aniston
Jennifer Aniston
Jamel Deane
Humphrey Bogart
Greta Garbo
George Michael
George Michael
Frank Sinatra
Ella Fitzgerald
Eddie Murphy
Dustin Hoffman
Donald Sutherland
Denzel Washington
Denzel Washington
David Byrne
David Byrne
Charles Chaplin
Charles Chaplin
Carole Lombard
Carole Lombard
Bette Midler
Bette Midler
Ariana Grande
Ariana Grande
Adele



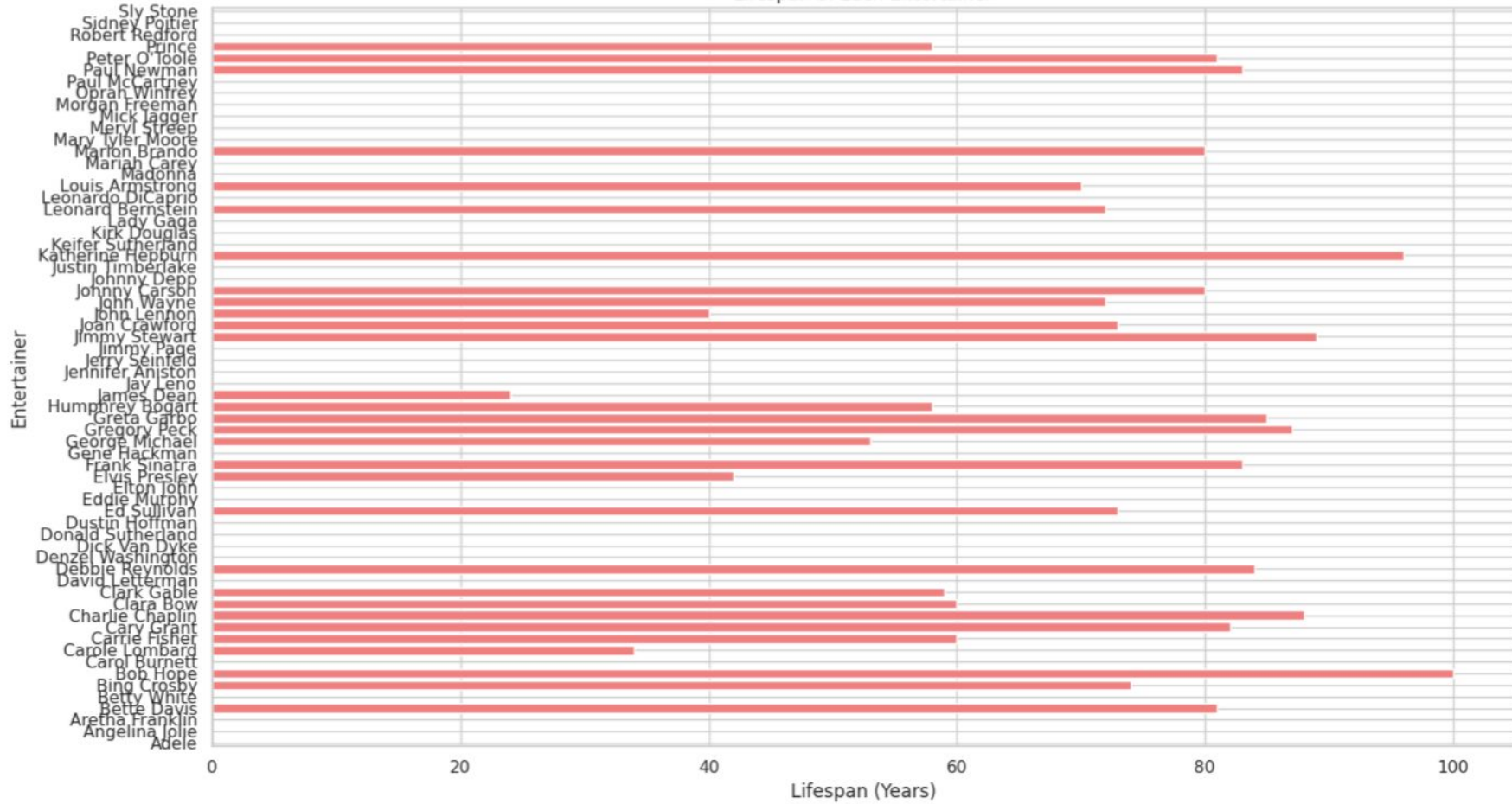


Analysing the lifespan of each Entertainer



```
plt.figure(figsize=(14, 8))  
plt.barh(merged_df['Entertainer'], merged_df['Lifespan'], color='lightcoral')  
plt.title('Lifespan of Each Entertainer')  
plt.xlabel('Lifespan (Years)')  
plt.ylabel('Entertainer')  
plt.tight_layout()  
plt.show()
```

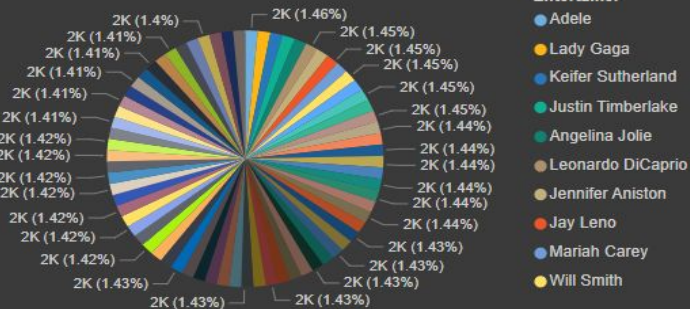
Lifespan of Each Entertainer



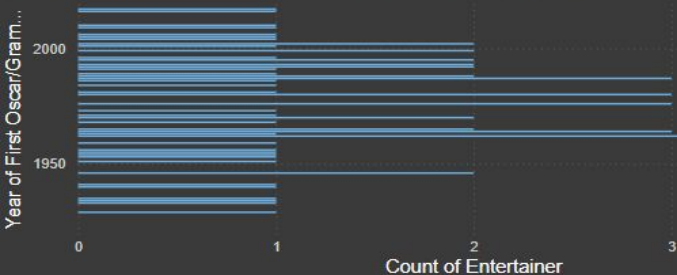
Dashboards

Entertainer Data Analysis Report

Sum of Year of Breakthrough/#1 Hit/Award Nomination by Entertainer



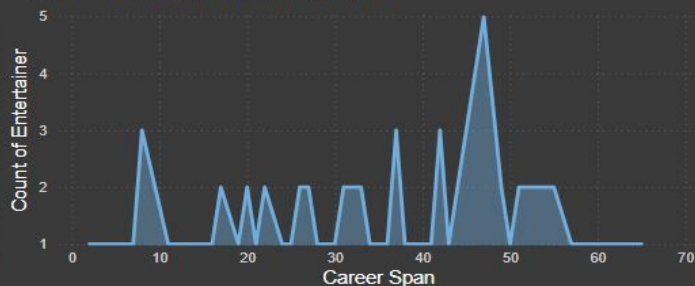
Count of Entertainer by Year of First Oscar/Grammy/Emmy



Sum of Career Span by Entertainer



Count of Entertainer by Career Span



 Filters



 Search

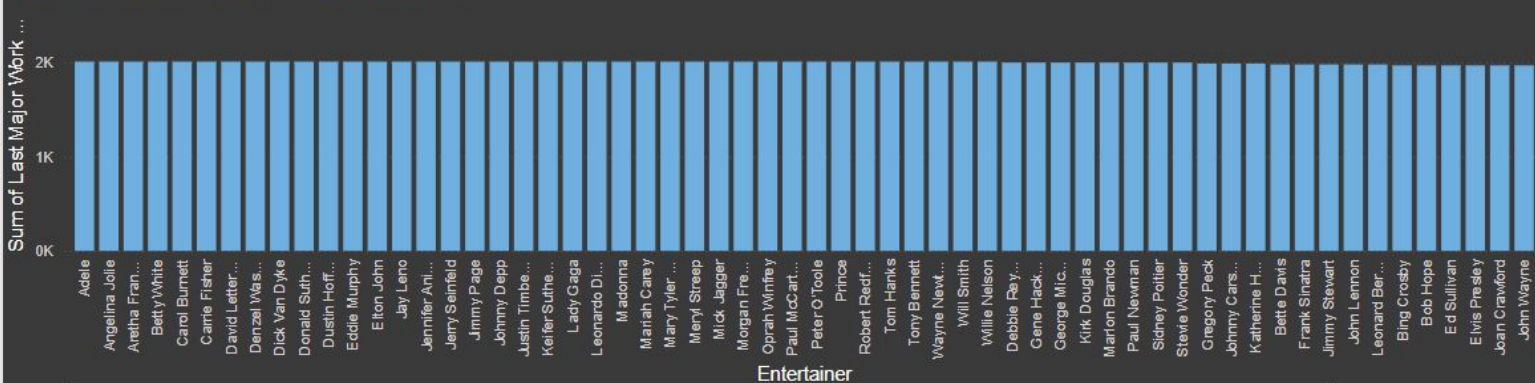
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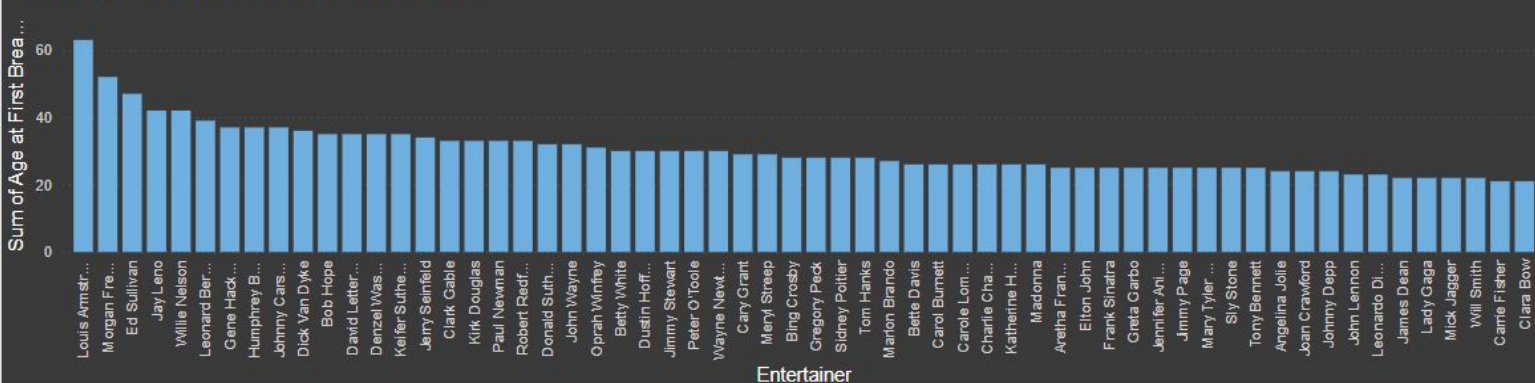
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Sum of Last Major Work Decade by Entertainer



Sum of Age at First Breakthrough by Entertainer



Filters



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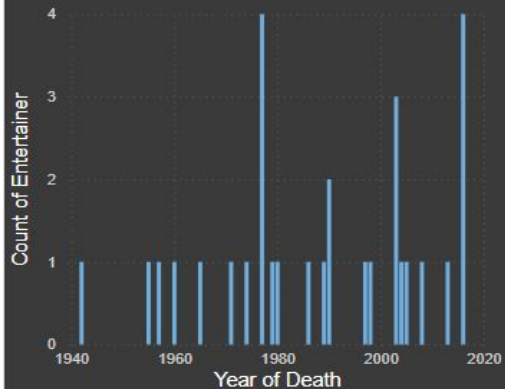
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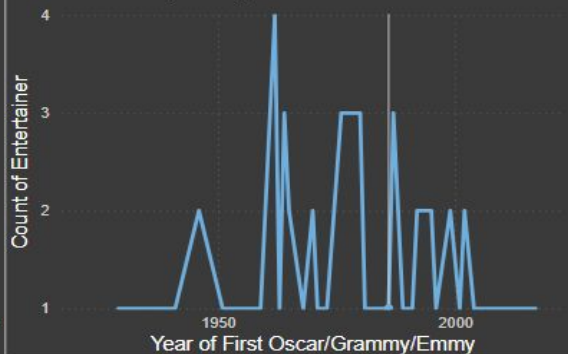
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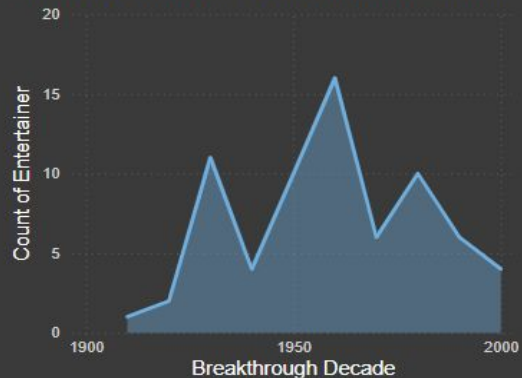
Count of Entertainer by Year of Death



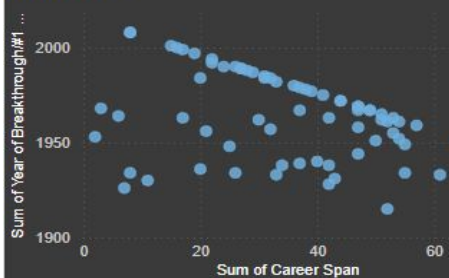
Count of Entertainer by Year of First Oscar/Grammy/Emmy



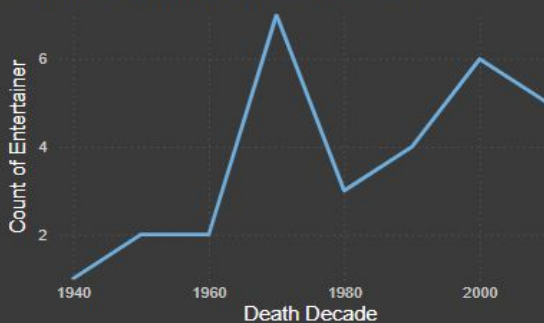
Count of Entertainer by Breakthrough Decade



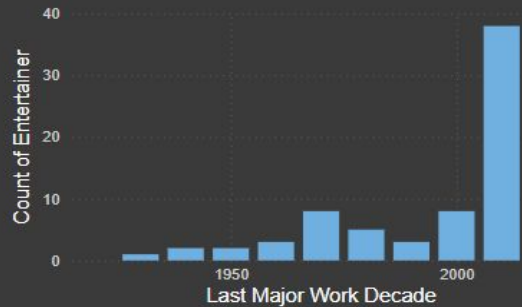
Sum of Career Span and Sum of Year of Breakthrough/#1 Hit/Award Nomination by Entertainer



Count of Entertainer by Death Decade

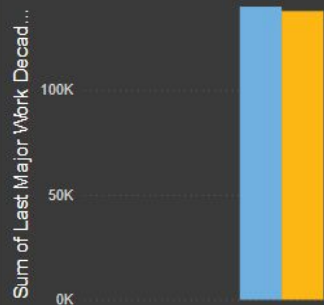


Count of Entertainer by Last Major Work Decade

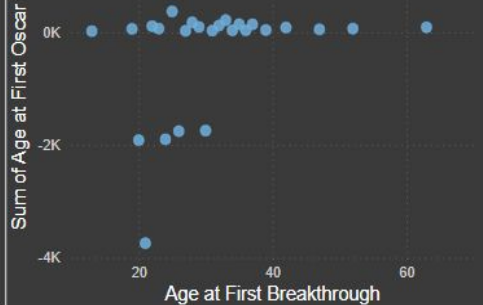


Sum of Last Major Work Decade and Sum of Year of Breakthrough/#1 Hit/Award Nomination

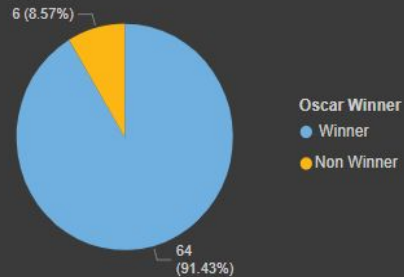
Sum of Last Major Work Decade Sum of Year of Breakthrou...



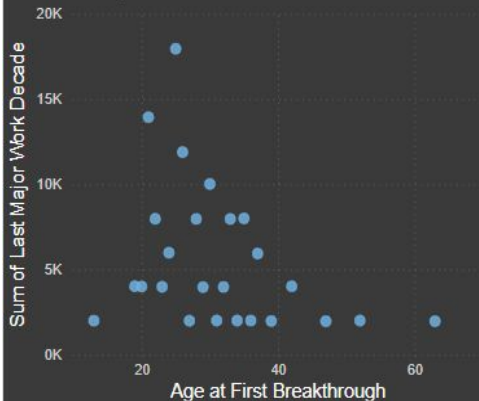
Sum of Age at First Oscar by Age at First Breakthrough



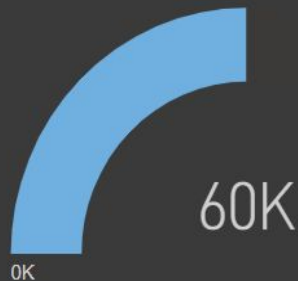
Count of Entertainer by Oscar Winner



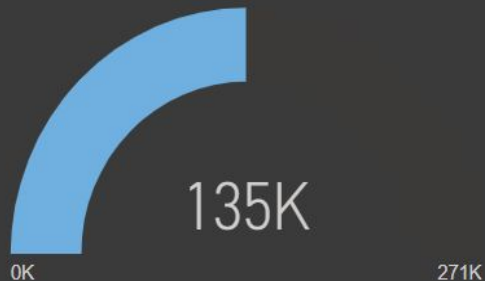
Sum of Last Major Work Decade by Age at First Breakthrough



Sum of Year of Death



Sum of Birth Year



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Crucial Findings

1. **Average Age at First Breakthrough:** This can reveal trends about the typical starting age for successful entertainers.
2. **Gender Distribution in Entertainment:** This can highlight any gender disparities in the entertainment industry, such as the ratio of male to female entertainers.
3. **Age at First Oscar:** This insight can show how long it typically takes for entertainers to achieve major recognition after their breakthrough.
4. **Career Longevity:** This can provide insights into how long entertainers remain active and relevant in the industry.
5. **Lifespan and Age at Death:** This can offer a perspective on the life expectancy of individuals in the entertainment industry compared to the general population.



6.**Trends in Breakthrough Years:**This can indicate periods of high activity or innovation within the industry.

7.**Oscar Award Trends:**This can reveal patterns such as whether certain decades had more Oscar-winning entertainers.

8.**End of Career Trends:**This can highlight periods when many entertainers retire or become less active.

9.**Impact of Early Success on Longevity:**Investigate whether early success (e.g., early breakthroughs or Oscars) correlates with longer or shorter careers.This can provide insights into how early achievements impact career longevity.



Conclusion

The analysis of the dataset reveals several critical insights into the careers and lives of entertainers. It highlights that entertainers typically achieve their first breakthrough around a certain age, which provides guidance for aspiring professionals. Gender distribution analysis uncovers representation disparities, emphasizing the need for more balanced opportunities. The average age at which entertainers receive their first Oscar and their career longevity offer a perspective on the timelines for major recognition and active careers. Lifespan and age at death data suggest a unique life expectancy for entertainers compared to the general population. Trends in breakthrough years and Oscar awards indicate periods of high activity and shifting industry standards. Finally, end-of-career trends show how long entertainers remain active and when they typically retire or become less prominent, providing a comprehensive understanding of career trajectories in the entertainment industry.

THANK YOU

