
0.0.1 Question 4b

Create two line plots below. The first should show how the **average movie runtime** has changed over time; the second should show how the **average movie rating** has changed over time. The x-axis should be **startYear** for both plots. Use the columns from the table generated in the previous part, **res_q4a**.

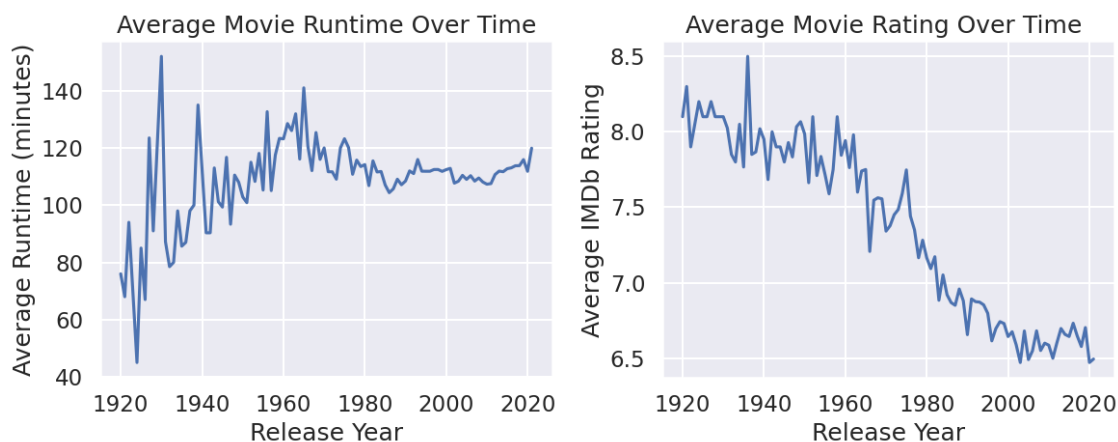
Notes: * Please use **sns** or **plt** functions for plotting. * Please include descriptive titles and labels. * If your plot does not show up in the generated PDF, please upload a PDF with a screenshot of your code and the plot.

```
In [25]: plt.figure(figsize=(12, 5))

plt.subplot(1, 2, 1) # DO NOT MODIFY THIS LINE
sns.lineplot(data=res_q4a, x='startYear', y='avgRuntime')
plt.title('Average Movie Runtime Over Time')
plt.xlabel('Release Year')
plt.ylabel('Average Runtime (minutes)')

plt.subplot(1, 2, 2) # DO NOT MODIFY THIS LINE
sns.lineplot(data=res_q4a, x='startYear', y='avgRating')
plt.title('Average Movie Rating Over Time ')
plt.xlabel('Release Year')
plt.ylabel('Average IMDb Rating')

plt.tight_layout()
```



Write 1–2 sentences describing any trends you observe in each plot. This will be graded for completion.

Average movie runtime increased from the 1920s through the 1960s, peaking above 140 minutes. Since then, runtimes have slightly decreased and plateaued between 100 and 120 minutes in recent years. Average movie rating has gradually decreased over time, dropping from above 8.0 in the early 20th century to around 6.5 in recent years.