How I used Amazon QuickSight to visualise data 📊
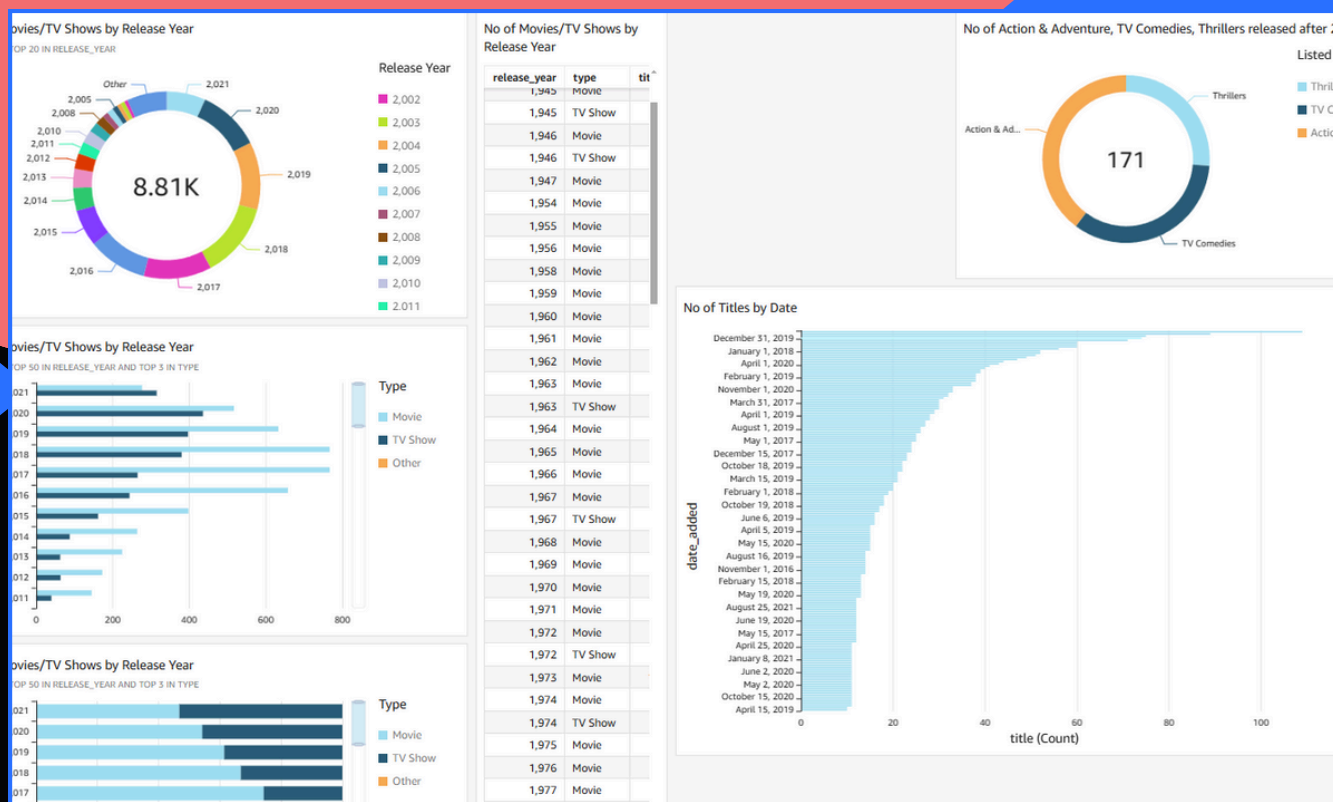
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What is Amazon QuickSight?

What it does:

- **Amazon QuickSight is a cloud-based business intelligence service by AWS that enables users to analyse and visualize data quickly and easily. It provides intuitive dashboards, interactive visualizations, and seamless integration with other AWS services for efficient data analysis and decision-making**

Why it's useful:

- QuickSight is useful for its ability to quickly analyse and visualize data, enabling informed decision-making and enhancing business intelligence

How I'm using it in today's project:

- In today's project, I'm using AmazonQuickSight to analyse and visualize Netflix data from Kaggle platform, providing actionable insights identifying trends, patterns, and correlations, optimizing processes, improving efficiency, detecting anomalies, and fostering innovation.
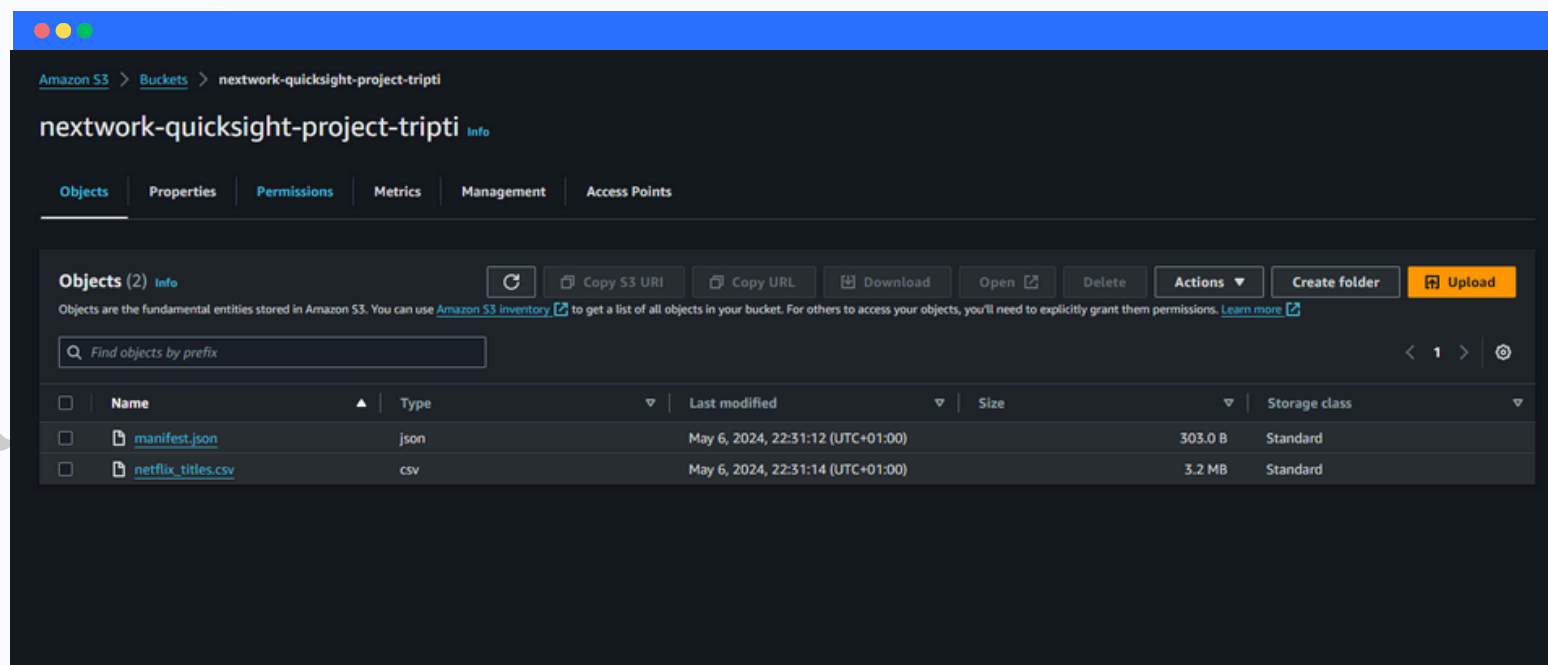
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Upload your dataset and a manifest.json file into S3

- S3 is used in this project to store my data set and manifest.json file.

- I edited the manifest.json file by updating the S3 URI of my dataset. It's important to edit this file because keeping an outdated S3 URI means that manifest.json would be directing to the wrong address.

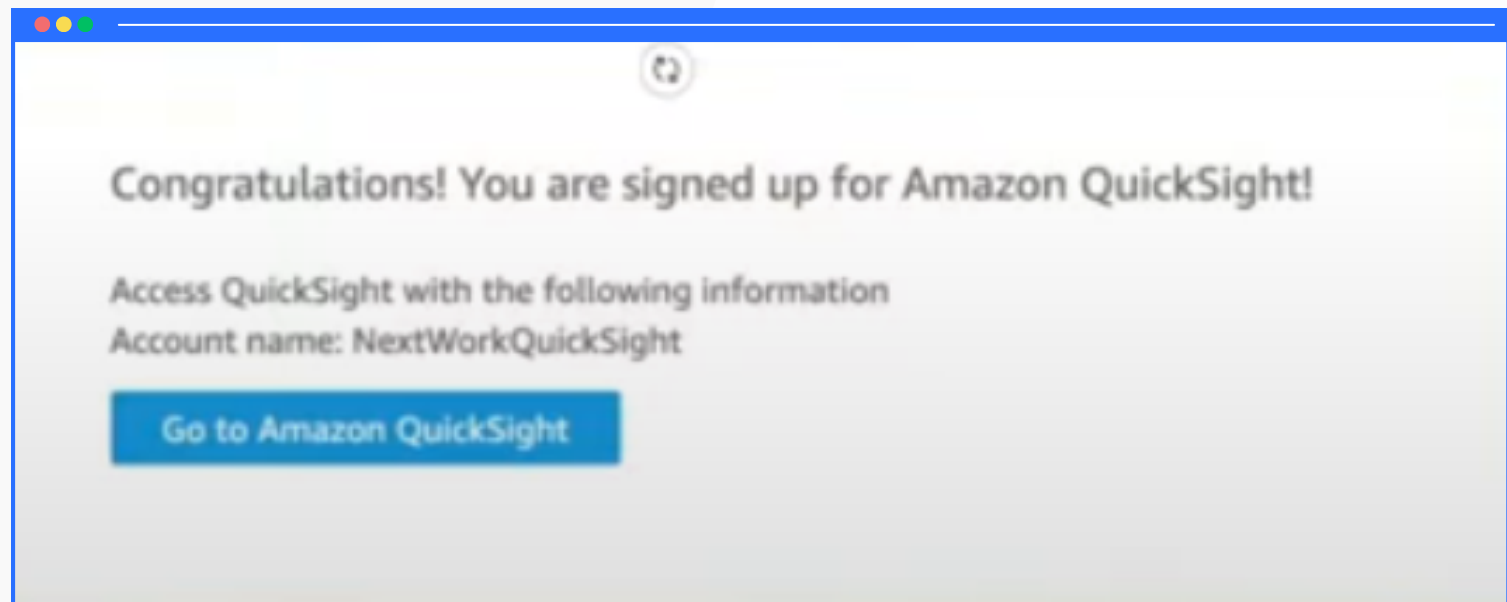Here's my bucket with the CSV file and manifest.json

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Create your Amazon Quicksight account

- It is free to make a QuickSight account(the free trial lasts for 30 days) and it took about 2 minutes to set up and wait for the account creation.
- I also had to enable QuickSight's access to S3 because my dataset is stored in a S3 bucket- and specific access to that bucket is required for QuickSight to process that date.

Voila! I created my QuickSight account successfully

Congratulations! You are signed up for Amazon QuickSight!

Access QuickSight with the following information
Account name: NextWorkQuickSight

Go to Amazon QuickSight

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Connect your S3 bucket to Amazon QuickSight

- I connected the S3 bucket to QuickSight by specifying the bucket's ARN (Amazon Resource Name) during the data source setup process inQuickSight's console.

- The manifest.json file was important in this step because it provides essential configuration details, including data source settings, ensuring accurate connectivity and data retrieval between the S3 bucket and QuickSight.
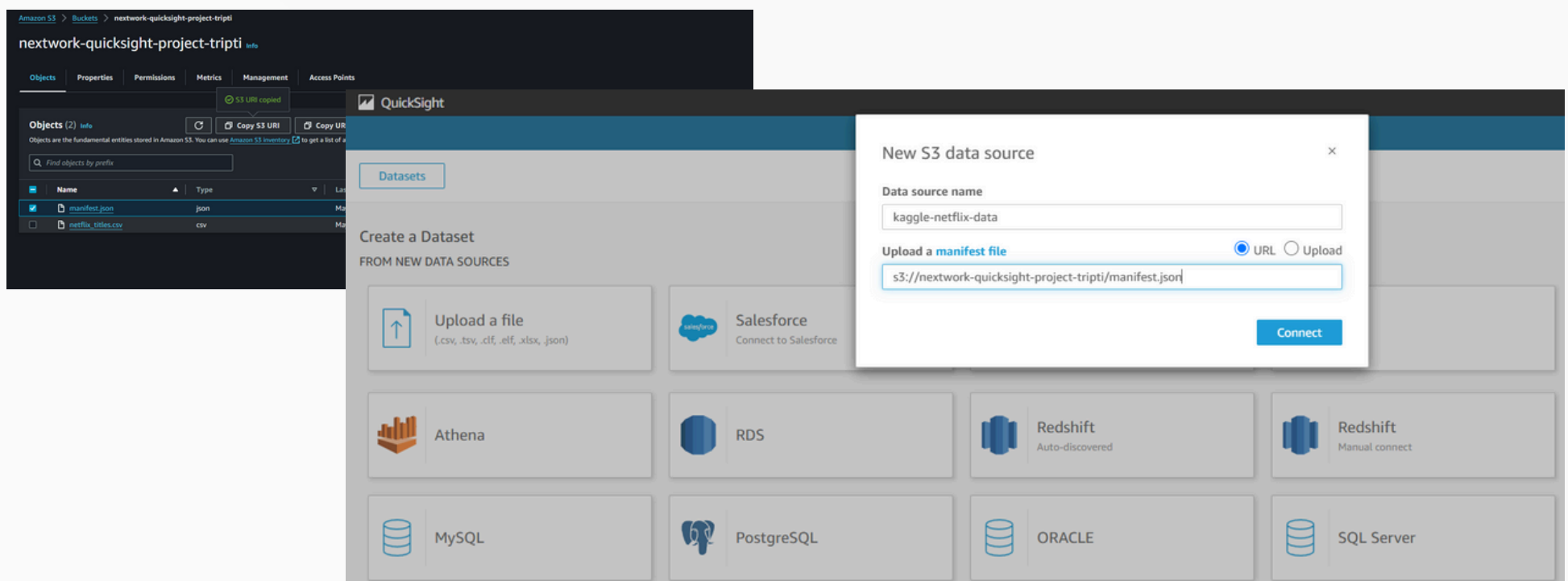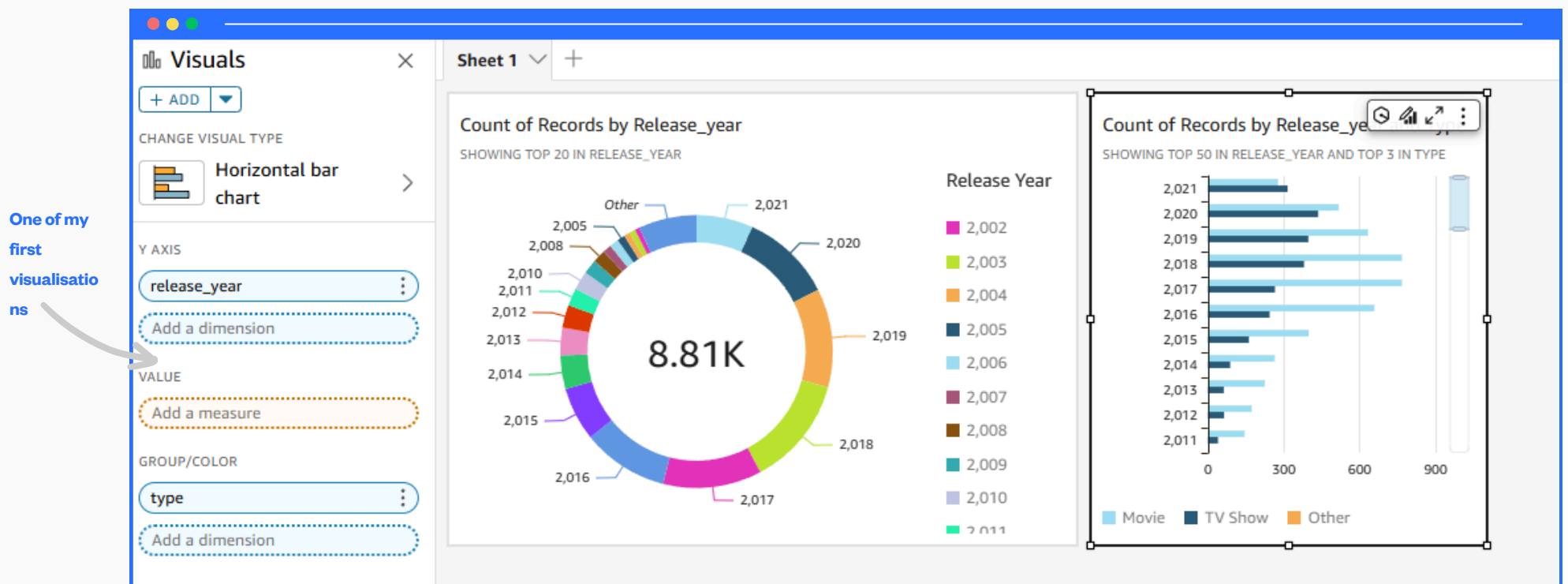

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Let's make visualisations!

- To create visualisation on QuickSight, you'll have to drag the relevant fields into the QuickSight dashboard's AutoGraph space.

- The chart/graph shown here is a breakdown of movies vs TV shows for every release year. I created this graph by doing putting the release year on the y-axis, making the type(movie or TV Show), the grouping variable.
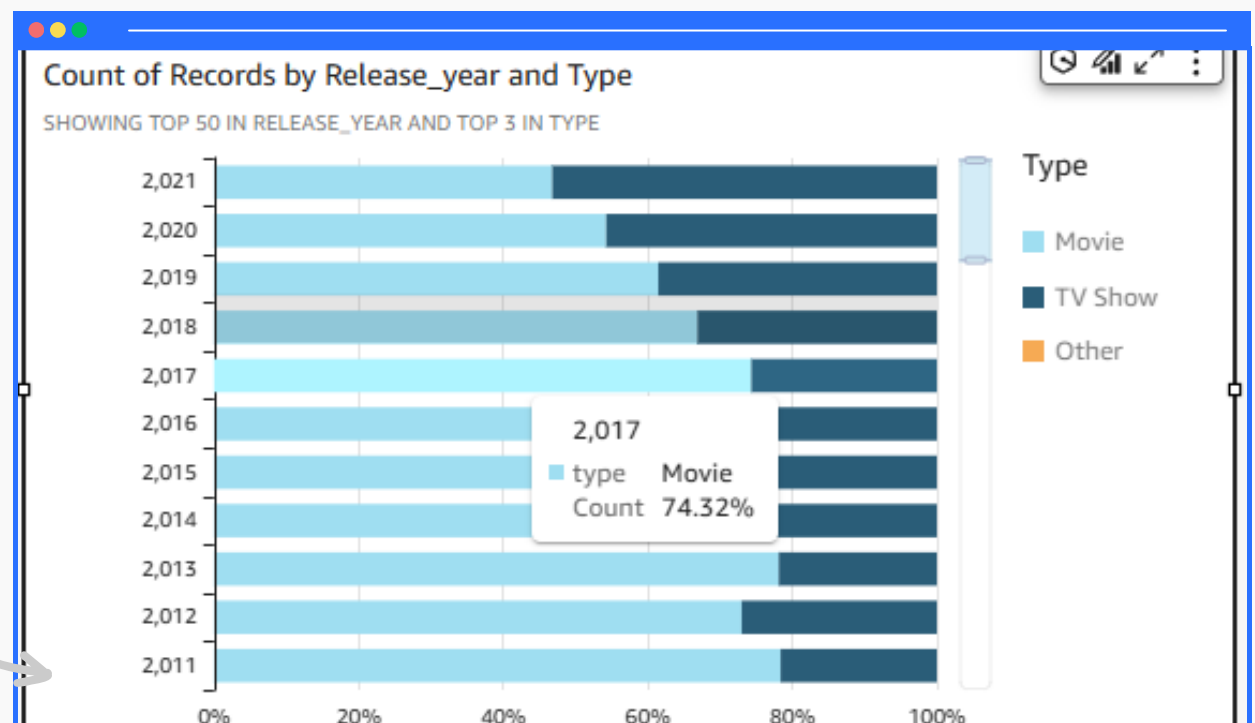

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Using filters

- Filters are useful for refining data visualizations by allowing users to focus on specific subsets of data based on defined criteria. They enable users to narrow down the scope of analysis, highlight relevant information, and uncover insights that might otherwise be obscured by large datasets.

A visualisation set up after filtering for...
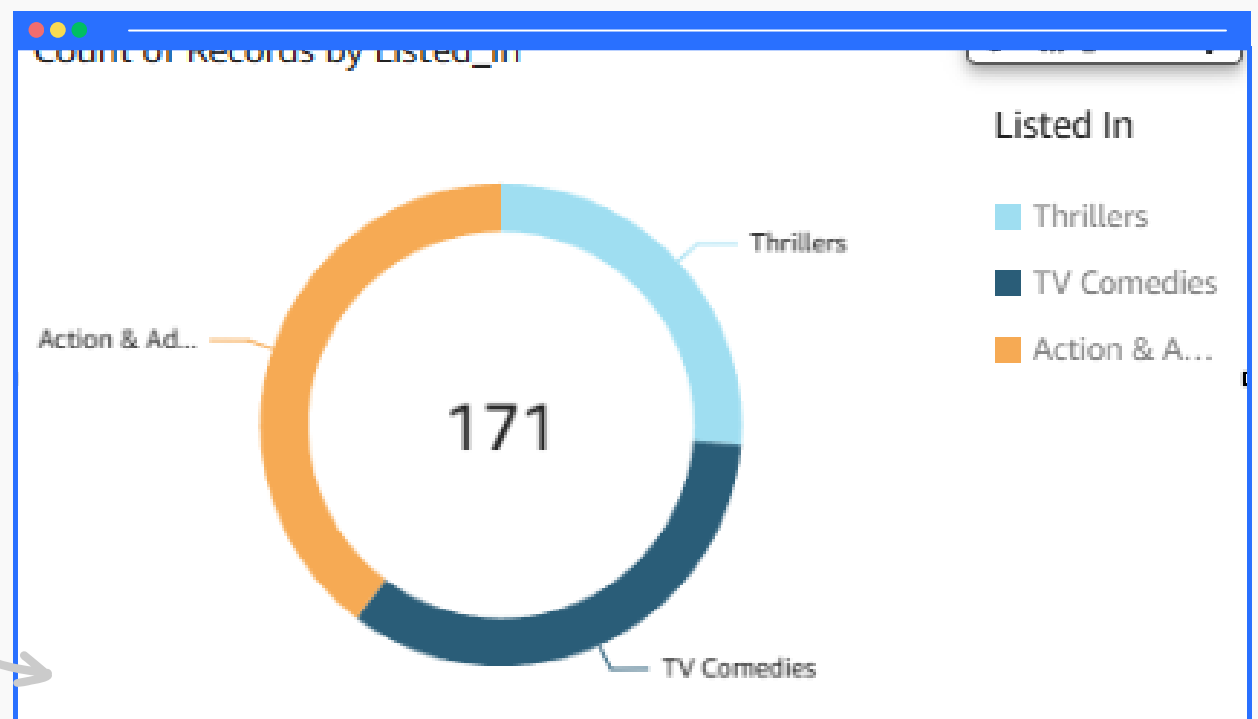
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Using filters

- Filters are useful for specifying the exact subset of data that you are wanting to analyse - effectively excluding any irrelevant data.

- Here I added a filter by excluding movies and TV shows that were released before 2. This helped me create a visualisation on movies and TV shows on the three genres that I specified and were released from 2015 onwards.

A visualisation set up after filtering for release data from 2015 onwards and listed categories.

Count of Records by Listed_in

Listed In

- Thrillers
- TV Comedies
- Action & A...

Action & Ad..
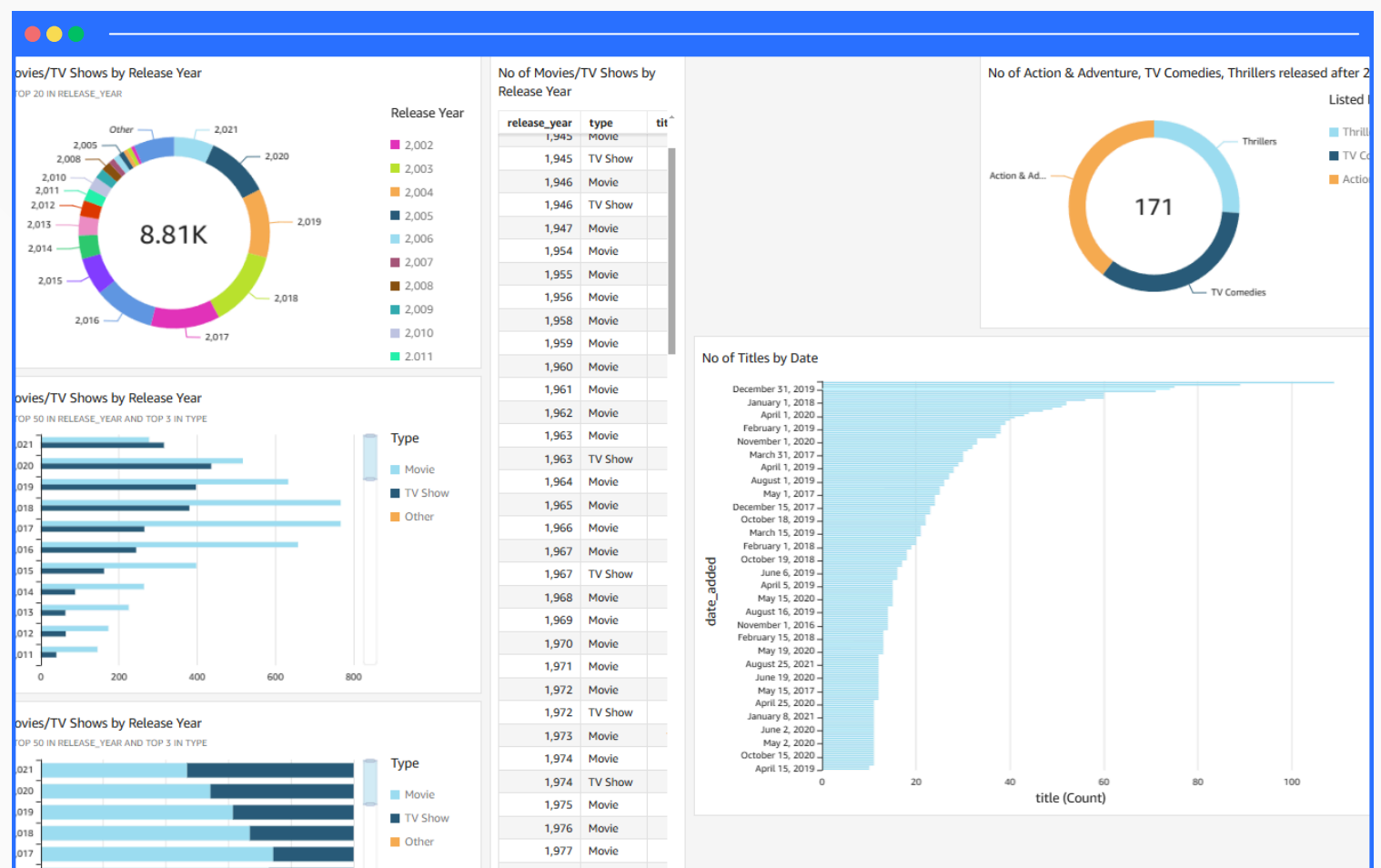
171

Thrillers

TV Comedies

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Set up your dashboard!

- As a finishing touch, I will be revisiting to amend the titles so it is clear to anyone what the purpose of each chart is.

- Did you know you could export your dashboard as PDFs too? I did this by going to File and then 'Export to PDF'.

Voila! Here's the finished dashboard!

My Key Learnings

01 QuickSight is a cloud-based business intelligence tool by AWS that empowers users to analyse and visualise their data effortlessly, enabling informed decision-making through intuitive dashboards and interactive insights.

02 This usage of manifest.json streamlines the setup process and enhances the overall functionality and performance of the QuickSight project.

03 Creating visualisations on QuickSight was surprisingly easy. The intuitive interface and drag-and-drop functionality made it a smooth process, and the wide range of options provided flexibility.

04 Integration with other Amazon services was also valuable. It allowed seamless utilization of services like S3 for data storage, Athena for ad-hoc querying, and Redshift for data warehousing, enhancing our analytics infrastructure's capabilities and scalability.

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Final thoughts...

- Delete EVERYTHING at the end! Let's keep this project free :)
- Now that I know how to use QuickSight, in the future I'd integrate with other AWS services , eg Amazon S3, Amazon Redshift, Amazon RDS, Amazon Aurora, Amazon Athena, Amazon EMR, to include, and facilitate streamlining reporting processes, monitoring business metrics in real-time, identifying trends and anomalies, conducting adhoc analysis, and derive actionable insights for informed decision making.
- An area of data visualisation I'd like to explore further is to be able to visual real-time data, spatial data, by combining data visualisation with storytelling to improve readability and comprehension of my dashboards

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Thanks NextWork for the
free project guide!

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