Visualize data with QuickSight 📊

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Introducing Amazon QuickSight!

What it does & how it's useful

Amazon QuickSight is data analysis tool. Developers and teams use Amazon QuickSight because it allows users to create meaningful visual representation of data and makes life easier to analyse large amount of data.

How I'm using it in today's project

I'm using Amazon QuickSight in this project to analyse a huge dataset of Netflix shows and movies to create a dashboard that extracts all the juicy insights.

This project took me...

- Around 60 mins to complete.
- Documentation took me more 30 mins

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Upload project files into S3

- S3 is used in this project to store two files, which are netflix_titles.csv and manifest.json.

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edited the manifest.json file by updating the S3 URI of my dataset It's important to edit this file because keeping an outdated S3 URI means that manifest.json would be directing to the wrong address.

Objects (2) Info

| ⟳ | 🗐 Copy S3 URI | 🗐 Copy URL | ⬇ Download | Open ↗ | Delete |

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory ↗ to get a list of all objects i them permissions. Learn more ↗

🔍 Find objects by prefix

☐	Name ▲	Type ▽	Last modified ▽
☐	📄 manifest.json	json	July 12, 2024, 18:04:36 (UTC+05:30)
☐	📄 netflix_titles.csv	csv	July 12, 2024, 17:57:42 (UTC+05:30)

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Create QuickSight account

- It costed me zero bucks as it comes with a 30 days trial period for up to 4 users.

- Creating a QuickSight account took me about 2 minutes as the process is seamless easy.

- I also had to enable QuickSight's access to S3 because my dataset is stored in S3 bucket and specific access is required for QuickSight to process the dataset.
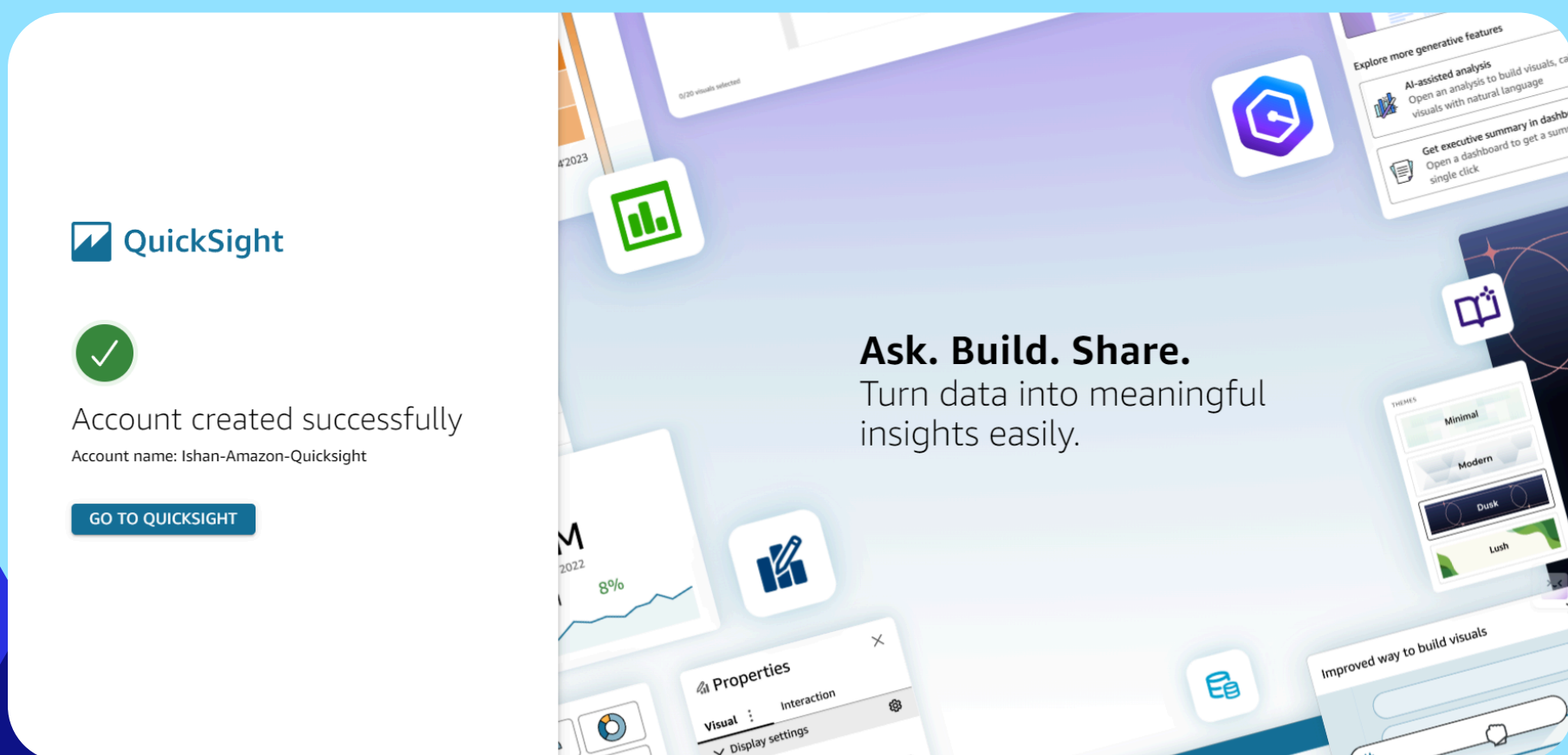
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Connect S3 + QuickSight

- I connected the S3 bucket to QuickSight by checking on the S3 check box.

- The manifest.json file was important in this step because manifest.json file is like a map that tell Amazon QuickSight where your data files are and how they're organised. Without this map QuickSight might get confused and not show your data correctly.

New S3 data source ✕

Data source name

netflix-dataset

Upload a manifest file   ⦿ URL ◯ Upload

s3://netflix-quicksight/manifest.json

Connect

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Let's make visualisations!

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

- The graph shown here is a breakdown of Movies Vs TV Shows for every release year. I created this graph by putting the release year on the y-axis and making the type (i.e. movies and tv shows)the grouping variable.

Year-wise TV and Movies

Legend: Movie, TV Show
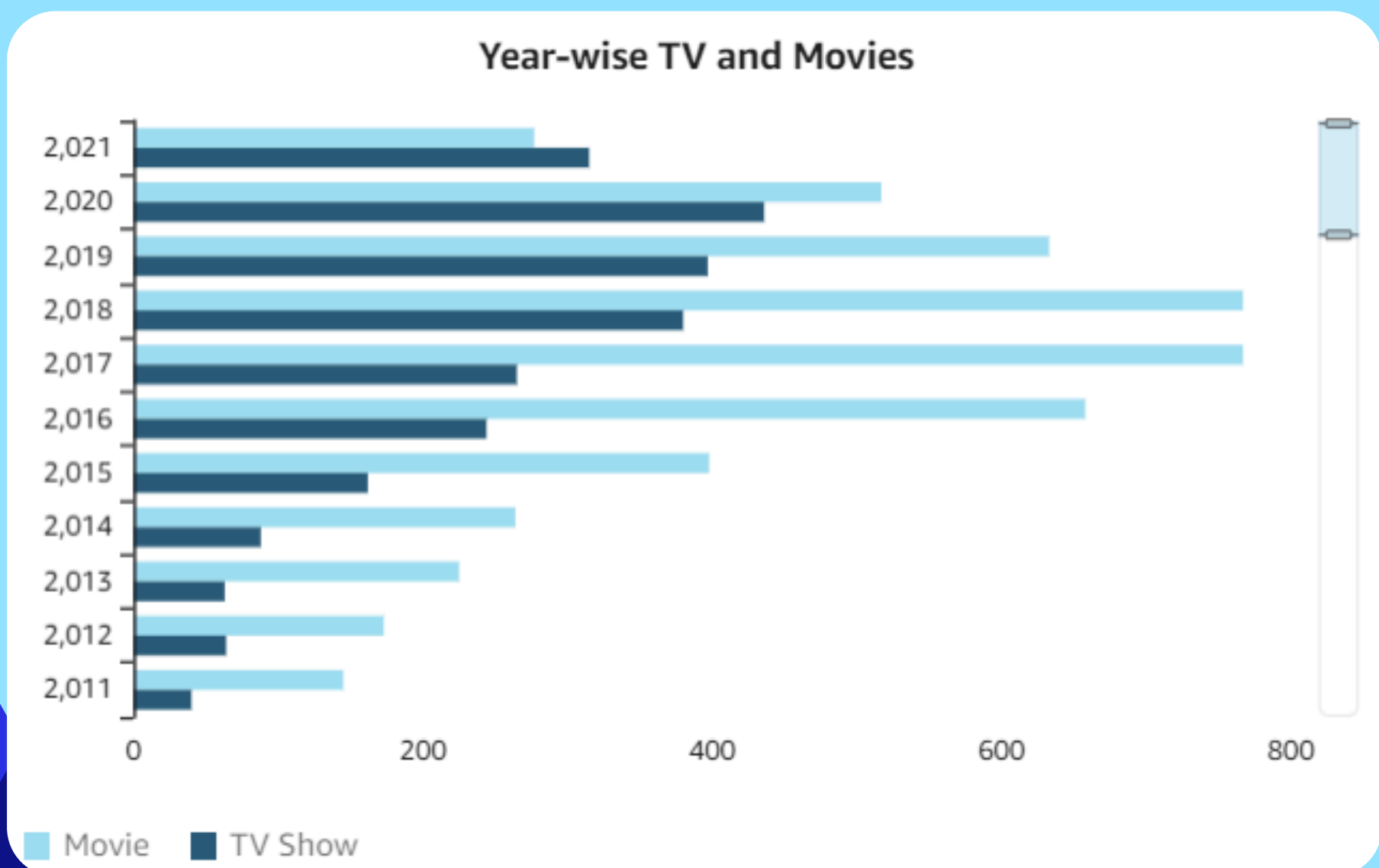
Using filters

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

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

TV & Movies by Action & Adventure, TV Comedies & Thrillers

Thrillers
45 (26%)

Action & Adventure
68 (40%)

171

TV Comedies
58 (34%)
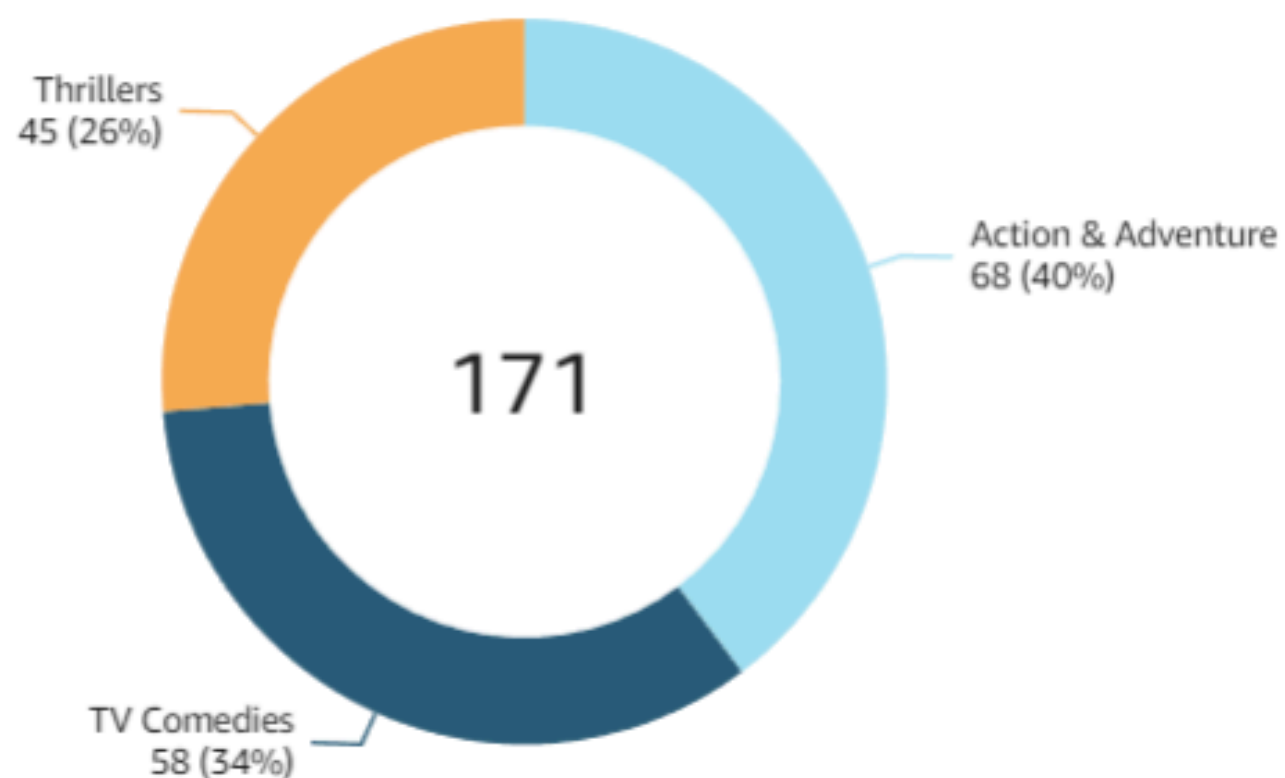
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Set up your dashboard!

- As a finishing touch, I edited the titles of my graphs so that the purpose of each chart is clear to the reader.

- Did you know you could export your dashboard as PDFs too? I did this by first **publishing the dashboard** after giving it a name. Then export option appears on the top left menu. Click export as pdf and when its ready **download the pdf**.

Titles released by Year
SHOWING TOP 20 IN RELEASE YEAR

Percentage-wise release TVs & Movies

Year-wise TV and Movies

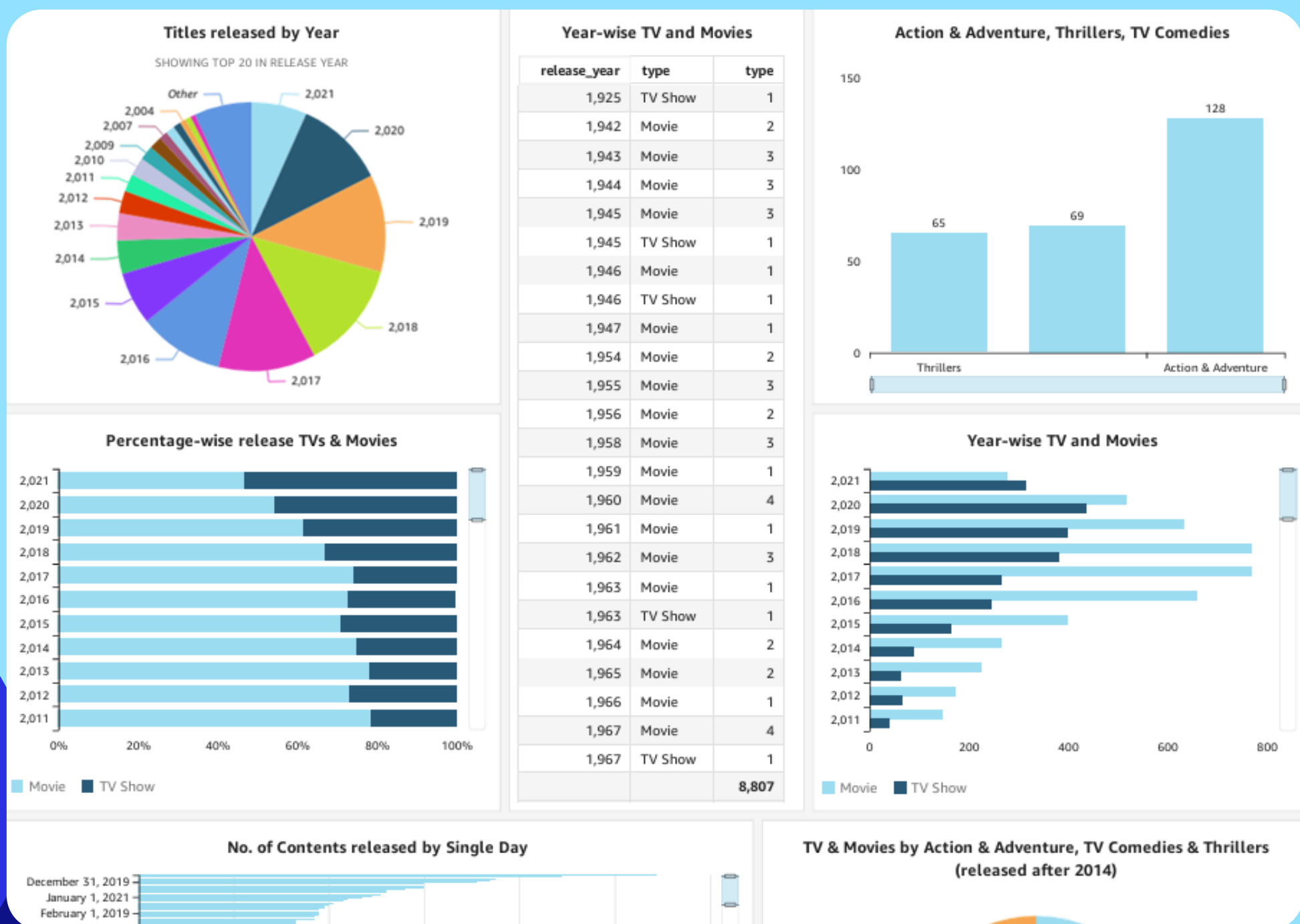| release_year	type	type
1,925	TV Show	1
1,942	Movie	2
1,943	Movie	3
1,944	Movie	3
1,945	Movie	3
1,945	TV Show	1
1,946	Movie	1
1,946	TV Show	1
1,947	Movie	1
1,954	Movie	2
1,955	Movie	3
1,956	Movie	2
1,958	Movie	3
1,959	Movie	1
1,960	Movie	4
1,961	Movie	1
1,962	Movie	3
1,963	Movie	1
1,963	TV Show	1
1,964	Movie	2
1,965	Movie	2
1,966	Movie	1
1,967	Movie	4
1,967	TV Show	1
		8,807

Action & Adventure, Thrillers, TV Comedies

Year-wise TV and Movies

No. of Contents released by Single Day

TV & Movies by Action & Adventure, TV Comedies & Thrillers (released after 2014)

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My key learnings

1 An S3 bucket was used in this project to store raw data files that needed to be processed and visualized in Amazon QuickSight. This allowed for scalable and secure storage of large datasets, making it easy to manage and access data for analysis.

2 To connect the data stored in S3 with QuickSight, I had to use a manifest.json file. This file defined the locations and structure of the data files within the S3 bucket, allowing QuickSight to correctly ingest and interpret the data for visualization.

3 Creating visualizations on QuickSight was easier than I expected. The user-friendly interface and drag-and-drop functionality made it straightforward to create interactive and insightful dashboards without requiring extensive coding knowledge.

4 One thing I didn't expect was how seamlessly QuickSight integrated with other AWS services. This integration simplified the process of connecting data sources and automating data updates, significantly reducing the time and effort needed to maintain the dashboards.