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# Visualize data with QuickSight



Gloria

The screenshot displays a dashboard titled "Sheet\_1.2024-11-21T22\_08\_46.pdf" with five distinct data visualizations:

- # of Thrillers, TV Comedies released ≥ 2015**: A donut chart showing the distribution of genres. The data is as follows:

| Listed In     | Count |
|---------------|-------|
| Thrillers     | 171   |
| TV Comedies   | 171   |
| Action & A... | 171   |
- # of Thrillers, TV Comedies and Actions & Adventures**: A donut chart showing the distribution of genres. The data is as follows:

| Listed In     | Count |
|---------------|-------|
| Thrillers     | 262   |
| TV Comedies   | 262   |
| Action & A... | 262   |
- Movies vs TV Shows by Release Year**: A horizontal bar chart showing the percentage of movies and TV shows released each year from 2001 to 2013. The data is as follows:

| Release Year | Movies (%) | TV Shows (%) |
|--------------|------------|--------------|
| 2001         | ~20        | ~80          |
| 2002         | ~15        | ~85          |
| 2003         | ~10        | ~90          |
| 2004         | ~5         | ~95          |
| 2005         | ~3         | ~97          |
| 2006         | ~2         | ~98          |
| 2007         | ~1         | ~99          |
| 2008         | ~1         | ~99          |
| 2009         | ~1         | ~99          |
| 2010         | ~1         | ~99          |
| 2011         | ~1         | ~99          |
| 2012         | ~1         | ~99          |
| 2013         | ~1         | ~99          |
- # of TV shows vs Movies by Release year**: A table showing the count of TV shows and movies released each year from 1994 to 1995.

| release_year | type  | title |
|--------------|-------|-------|
| 1,942        | Movie | 2     |
| 1,943        | Movie | 3     |
| 1,944        | Movie | 3     |
| 1,945        | Movie | 3     |
| 1,946        | Movie | 1     |
| 1,947        | Movie | 1     |
| 1,954        | Movie | 2     |
- Number of TV/Movies by release year**: A donut chart showing the number of TV/Movies released each year from 2004 to 2007. The data is as follows:

| Release Year | Count  |
|--------------|--------|
| 2004         | ~2,004 |
| 2005         | ~2,005 |
| 2006         | ~2,006 |
| 2007         | ~2,007 |
| 2008         | ~2,008 |
| 2009         | ~2,009 |
| 2010         | ~2,010 |
| 2011         | ~2,011 |
| 2012         | ~2,012 |
| 2013         | ~2,013 |
| 2014         | ~2,014 |
| 2015         | ~2,015 |
| 2016         | ~2,016 |
| 2017         | ~2,017 |
| 2018         | ~2,018 |
| 2019         | ~2,019 |
| 2020         | ~2,020 |
| 2021         | ~2,021 |

The center of the donut chart displays "8.81K".



# Introducing Today's Project!

## What is Amazon QuickSight?

Amazon QuickSight is a cloud service that creates interactive dashboards and visualizations. It integrates seamlessly with AWS services like S3 buckets, enabling you to analyze and understand stored data efficiently and it is visually appealing.

## How I used Amazon QuickSight in this project

I used Amazon QuickSight to analyze data stored in an S3 bucket. By connecting the bucket, I created a dashboard to visualize trends and insights from the dataset. This streamlined data analysis and showcased several chart representation of the data

## One thing I didn't expect in this project was...

One thing I didn't expect was how Amazon QuickSight works with S3 buckets. It was surprising how I could connect and visualize the data into interactive dashboards without needing to code hence it will be easier for a non-tech to do same .

## This project took me...

This project took me 30 minutes to complete. The integration between Amazon QuickSight and the S3 bucket simplified the process, allowing me to quickly connect, analyze, and create insightful dashboards.

# Upload project files into S3

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

I edited the `manifest.json` file by replacing the URL with my S3 object URL, which contains the object details for `netflix-titles.csv`. It's important to edit this file because it ensures the app fetches the correct data source.

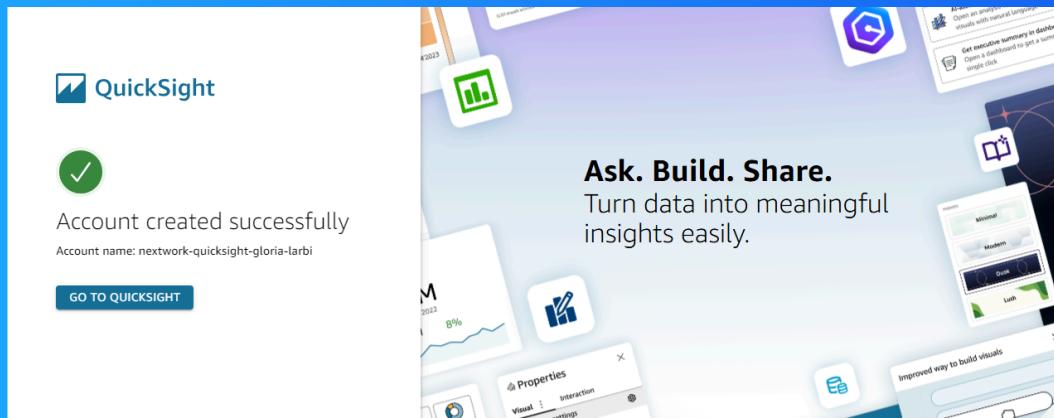
The screenshot shows the AWS S3 console interface. At the top, there is a navigation bar with tabs for Objects, Properties, Permissions, Metrics, Management, and Access Points. The 'Objects' tab is selected. Below the navigation bar, there is a toolbar with actions: Copy S3 URI, Copy URL, Download, Open, Delete, Actions (with a dropdown arrow), Create folder, and Upload. A search bar labeled 'Find objects by prefix' is present. The main area displays a table of objects:

| Name               | Type | Last modified                           | Size    | Storage class |
|--------------------|------|---|---------|---------------|
| manifest.json      | json | November 21, 2024, 18:39:58 (UTC+00:00) | 303.0 B | Standard      |
| netflix_titles.csv | csv  | November 21, 2024, 18:32:28 (UTC+00:00) | 3.2 MB  | Standard      |

# Create QuickSight account

Creating a QuickSight account costs nothing initially, as AWS offers a free trial for standard and enterprise editions. After the trial, charges depend on usage and edition chosen.

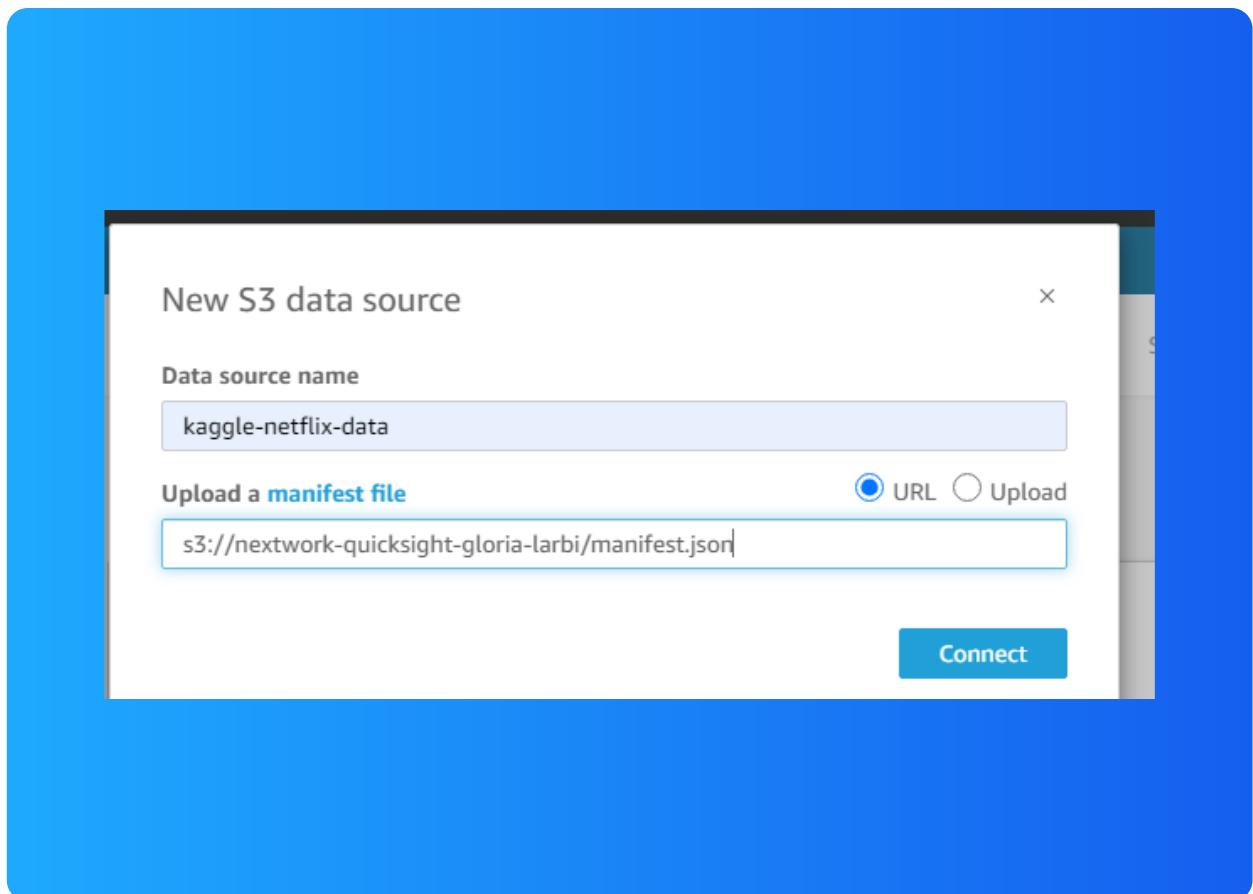
Creating an account took me only a few minutes. The process was straightforward, requiring basic details like email, name, region selection and S3 bucket selection.



# Download the Dataset

I connected the S3 bucket to QuickSight by visiting the Manage Data page under the QuickSight console. From there, I selected New Dataset, chose the S3 option, and provided the bucket's URL to establish the connection.

The manifest.json file was important in this step because it defines the structure and location of the data stored in the S3 bucket. It ensures QuickSight can accurately locate and read allowing for seamless data interpretation

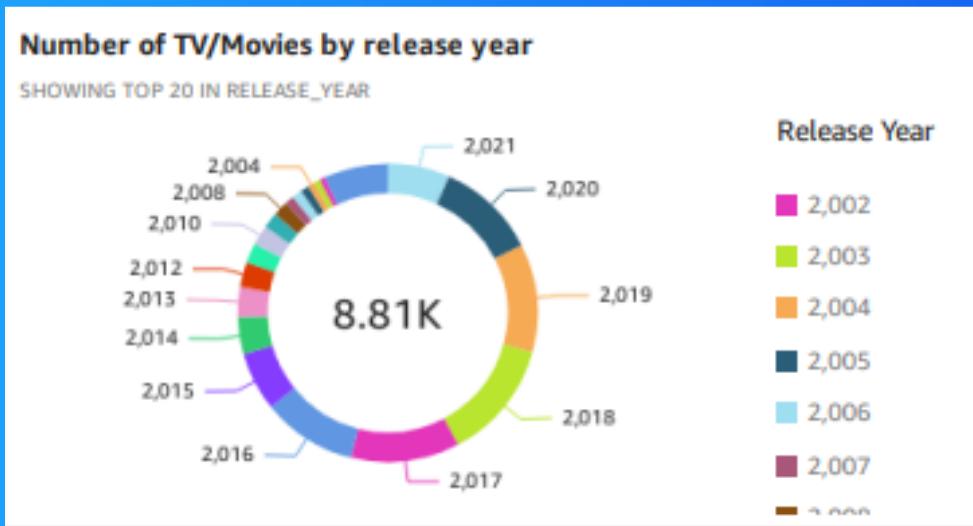


# My first visualization

To create visualizations on QuickSight, I connected my dataset from the S3 bucket, selected fields to analyze, and chose the appropriate chart types like bar, line, or donut. The drag-and-drop feature made customizing the visuals easier

The chart shown is a breakdown of TV shows and movies released by year, showcasing the top 20 years. Using a donut chart, it highlights each year's contribution with special colors.

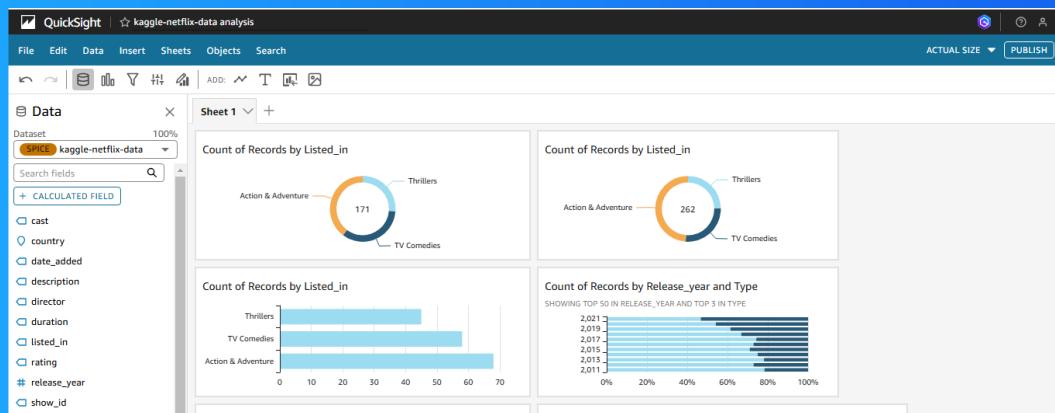
I created this graph by dragging and dropping the 'Release Year' field into the category section and the type field into the value section. I then selected the donut chart visualization and added a title for easier identification.



# Using filters

Filters are useful for narrowing down large datasets to focus on specific information, enabling clear insights and targeted analysis.

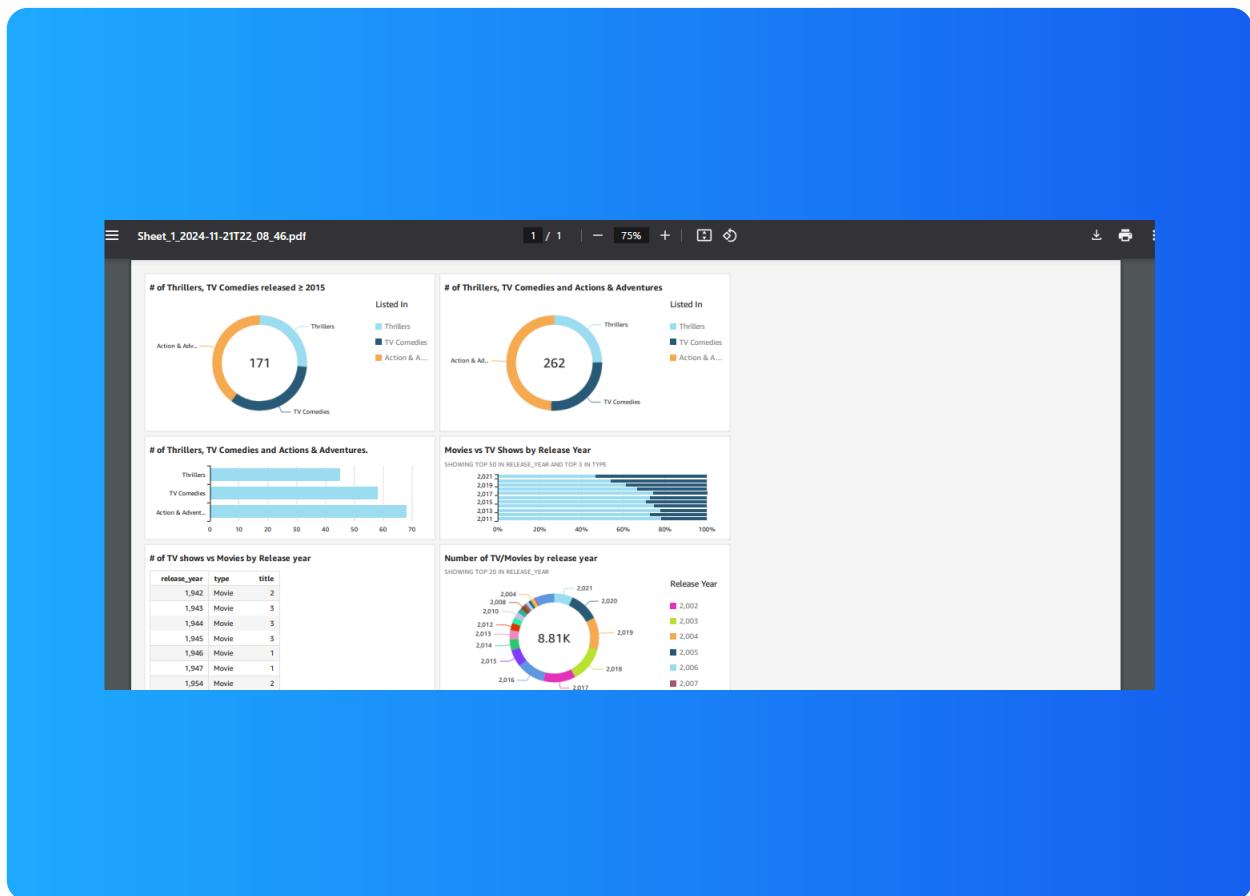
This visualization is a breakdown of the distribution of Netflix titles across different categories such as release years. Here, I added a filter by category type to create a donut chart.



# Setting up a dashboard

As a finishing touch, I renamed every chart to suit what it did, ensuring clarity and easy navigation for team members interacting with the dashboard. This made the visualizations more intuitive and aligned with the data insights they provided.

Did you know you could export your dashboard as PDFs too? I did this by selecting the Export option in QuickSight, Generated PDF and downloading the file. It's a great way to share insights to others





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