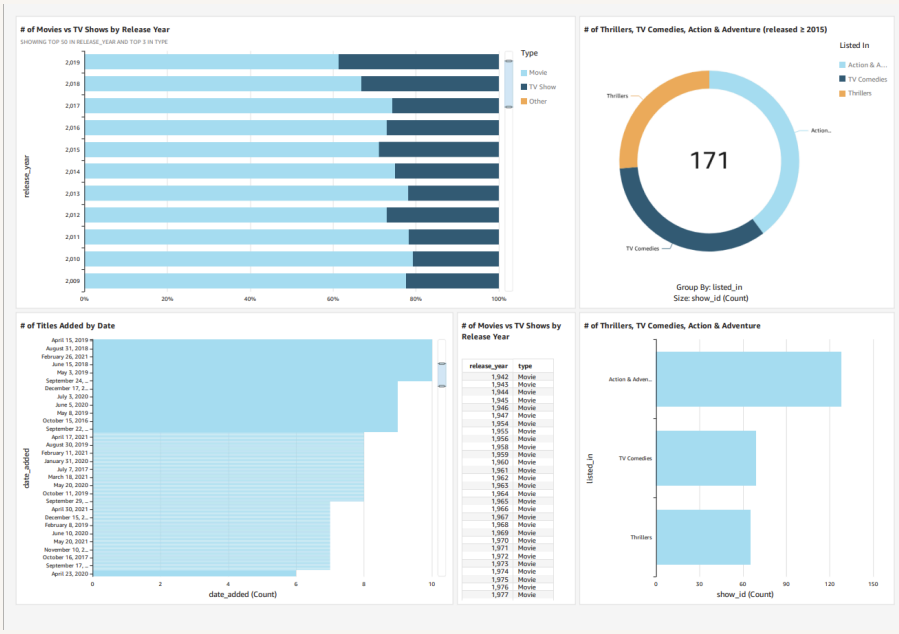
Visualize data with QuickSight

Mahmoud Alshaer



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Introducing Today's Project!

In this project, I will demonstrate how to use Amazon QuickSight to analyze data and generate visualizations. I'm doing this project to learn how to use cloud services for data analyses.

Tools and concepts

Services I used were QuickSight and S3. Key concepts I learnt include manifest.json files, data visualization techniques(e.g. charts, filters).

Project reflection

This project took me approximately 2 hours including demo time. The most challenging part was understanding how a manifest.json file works. It was most rewarding to see the finished result of the dashboard.

After this project, I plan to work on a cloud security project. I will start this project tomorrow.

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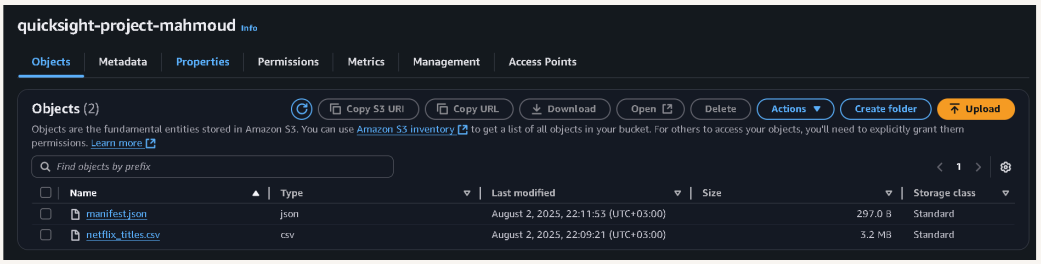
Upload project files into S3

S3 is used in this project to store two files, which are manifest.json (Which tells QuickSight the structure and the fomat of the data that we are analyzing) and netflix_titles.csv (Which is the raw data that I am analyzing).

I edited the manifest.json file by updating the S3 URI that corresponds to my dataset's file location. It’s important to edit this file because its how QuickSight will find and analyze the data.



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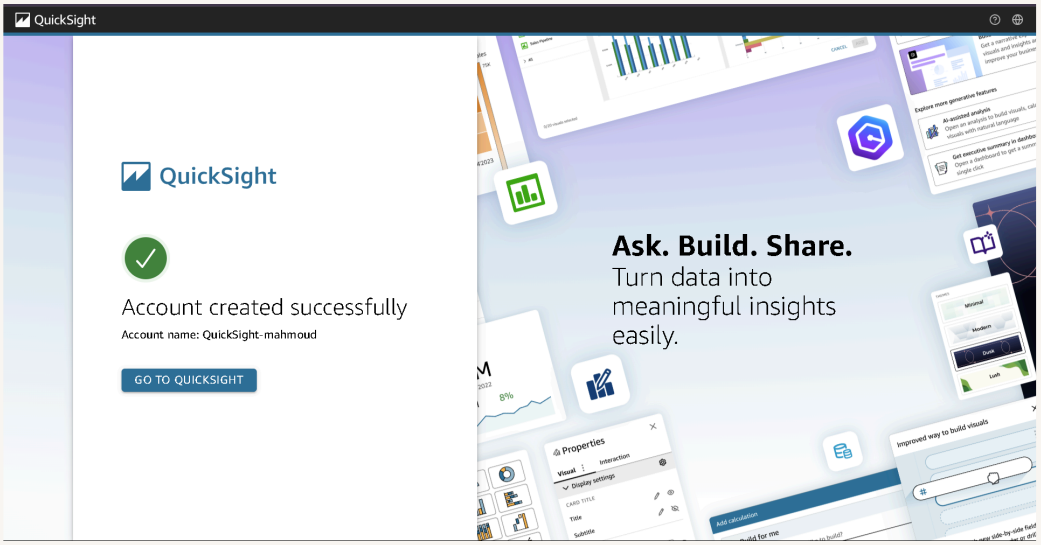
Create QuickSight account

Creating a QuickSight account cost $0 as it comes with a 30 day free trial

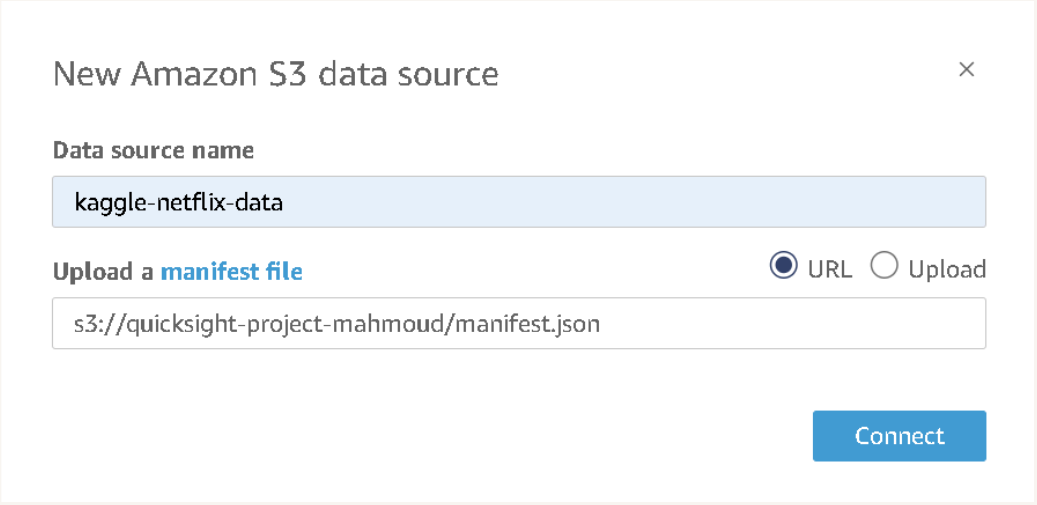
Creating an account took me about 5 minutes, including setting up my S3 bucket permissions.



Download the Dataset

I connected the S3 bucket to QuickSight by visiting the dataset page, then clicking on S3, then inputting the data source name and the manifest file URL.

The manifest.json file was important in this step because it tells QuickSight what the dataset looks like, so QuickSight knows how to understand the data and show it in charts or graphs.



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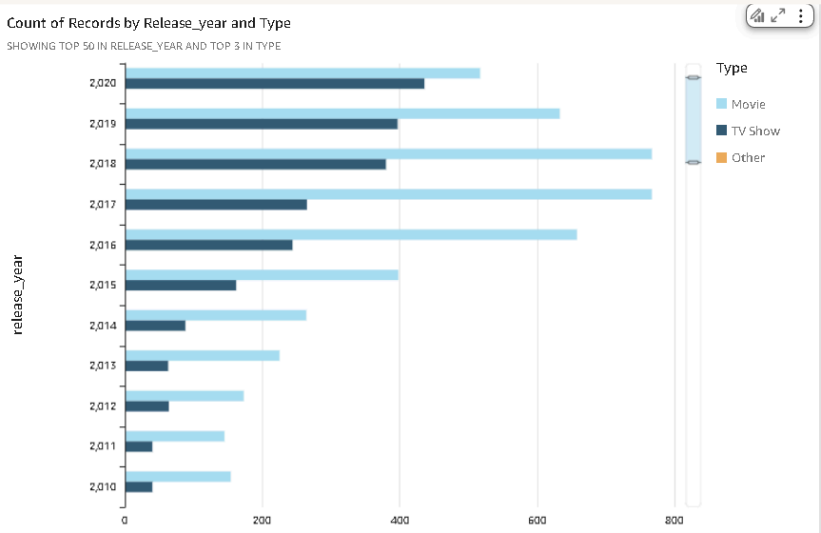
My first visualization

To create visualizations on QuickSight, I clicked on data fields e.g. release year, and QuickSight will automatically generate a graphic that best suits that type of data.

The graph shown here is a breakdown of the release years and the type of the media i.e. how many TV shows/movies were released on xyz year, and how many of those were either TV shows or movies.

I created this graph by dragging and dropping the "release_year" data label and the "type" data label and choosing a horizontal line bar chart in the visuals section.



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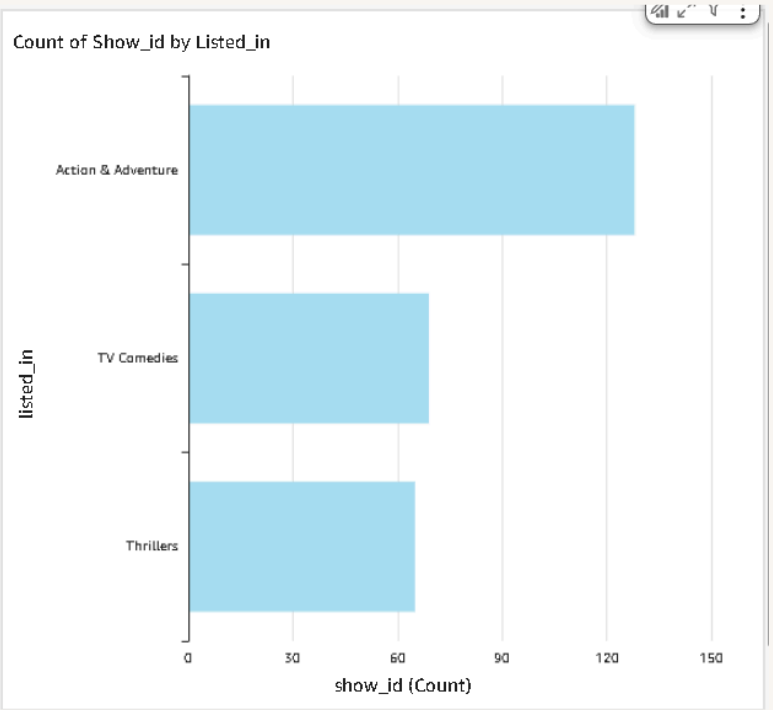
Using filters

Filters are useful for narrowing down our data to the subset that I want to focus on.

This visualization is a breakdown of TV shows and movies that belong in 1 of 3 categories, Action and Adventure, TV comedies, and Thrillers. Here I added a filter based on the "listed on" data label i.e. only these 3 categories could pass the filter.



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Setting up a dashboard

As a finishing touch, I updated the titles of the charts in the dashboard, so that they are easliy readable.

Did you know you could export your dashboard as PDFs too? I did this by selecting publish and then generate PDF on the top right hand corner of our QuickSight analysis.