Netflix Movies Analysis

A brief visual-analysis of the Netflix Movies using Amazon Quicksight

How I used Amazon Quicksight to Visualize Data?

What Were the Learnings ?
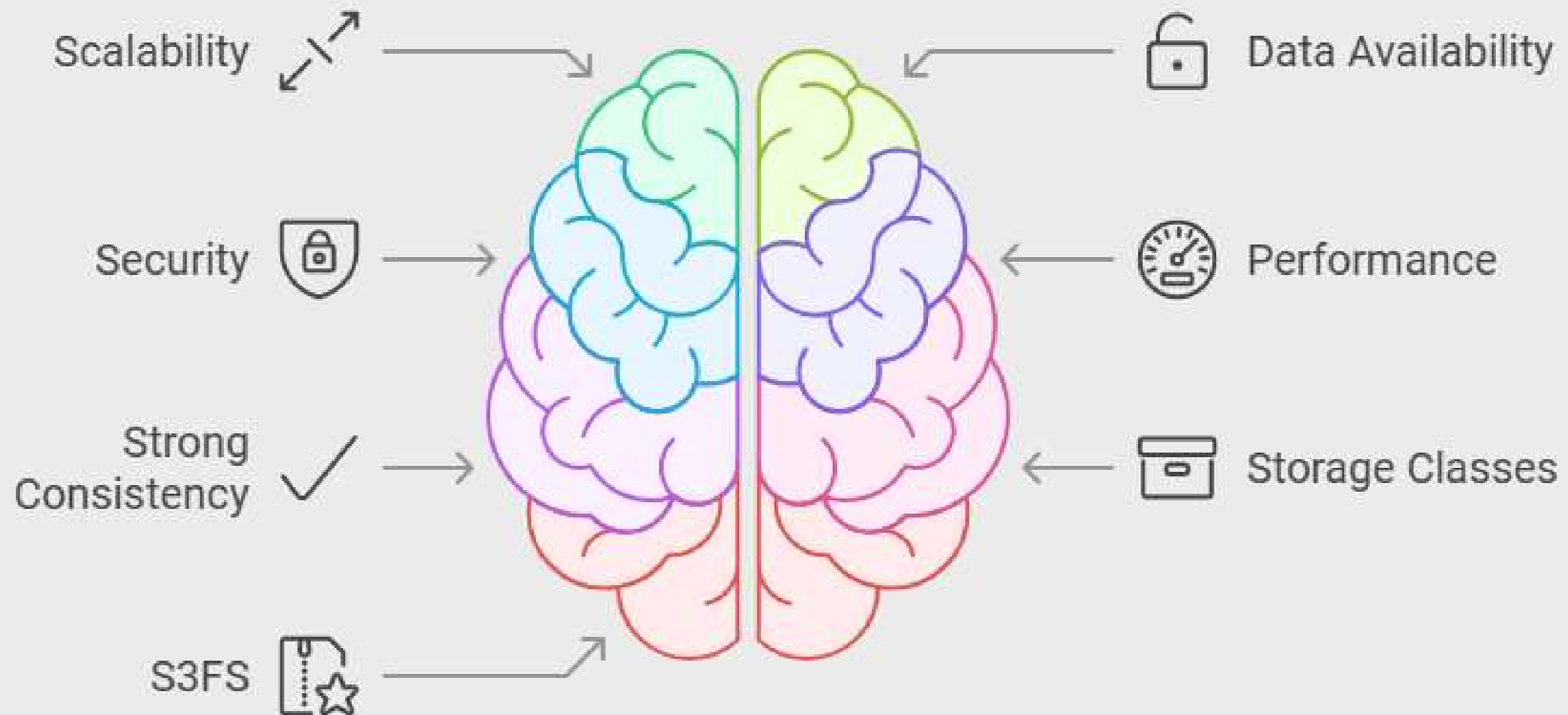
Milestone 1

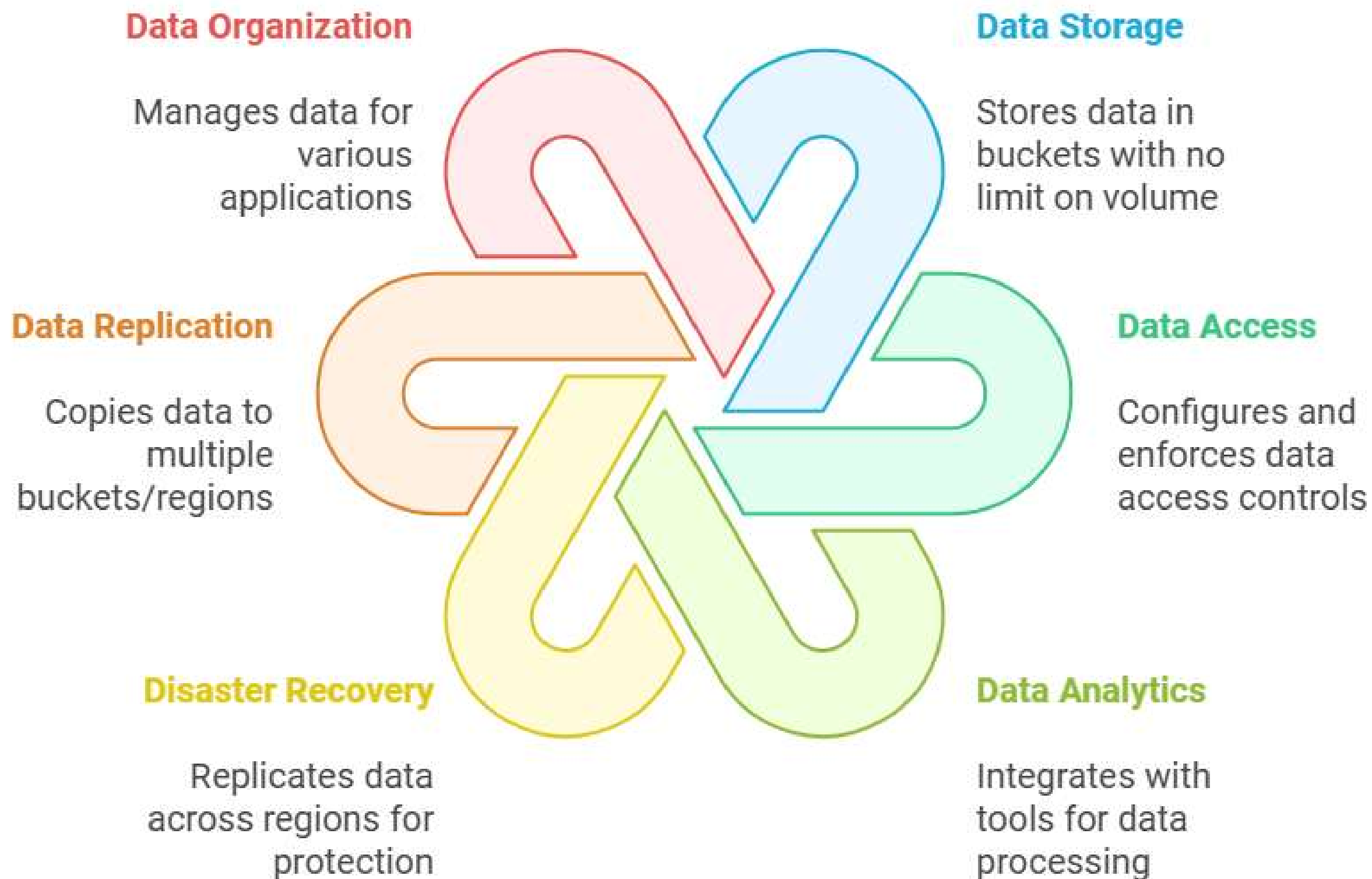S3 Bucket Creating

Milestone 2

Data Upload

Milestone 3

Data Visualization

Milestone 2

Data Presenting

I. Introducing Amazon S3

Overview of Amazon S3 Features

Scalability

Data Availability

Security

Performance

Strong Consistency

Storage Classes

S3FS

Amazon QuickSight

Data Visualization

Dashboard Creation

KPI Development

SPICE Engine

atural Language Queries

AWS Tools

Amazon S3

Data Storage

Data Retrieval

Marketing Data Reposito

Amazon S3 Service Overview

Data Organization

Manages data for various applications

Data Storage

Stores data in buckets with no limit on volume

Data Replication

Copies data to multiple buckets/regions

Data Access

Configures and enforces data access controls

Disaster Recovery

Replicates data across regions for protection

Data Analytics

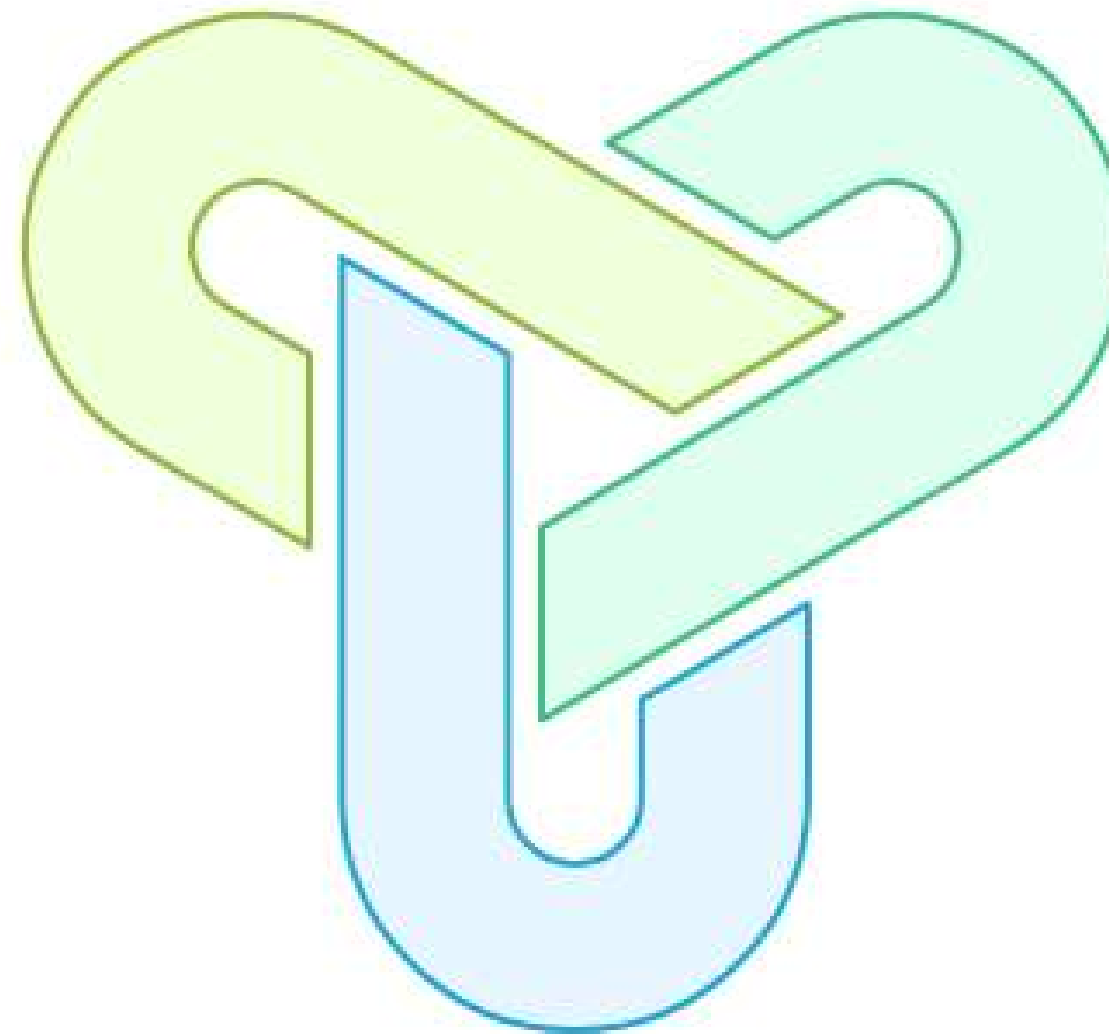Integrates with tools for data processing

What it does ? How is it useful ?

Project Data Management Overview

Application Connection

Establishing connections for the application

Data Storage

Using data as a storage and source for analysis

Manifest File Loading

Loading JSON manifest for data guidance

Summary

Destination	Succeeded	Failed
s3://aws-quicksight-netflixviz	⊘ 1 file, 274.0 B (100.00%)	⊖ 0 files, 0 B (0%)

- **Some common configuration steps to consider :**
- The bucket's Region: I choose AWS East which is nearby to my location which cause low latency
- Access Control Lists: I chose bucket policies for general purpose
- Bucket versioning: It allows to store multiple versions of the bucket, I left default.
- Public Access: I set as publicly accessed for bucket, which means it can be accessed from anywhere with right request.

III. Data Structure

- Following csv data and table structure was used for analysis purpose.

show _id	type	title	director	cast	country	date_adde d	release _year	rating	duration	listed_in	description
s1	Movie	Dick Johnson	Kirsten Johnson		United States	25-Sep-21	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmmaker Kirsten Johnson stages his death in inventive and
s2	TV Show	Blood & Water		Ama Qamata, Khosi Ngema, Gail	South Africa	24-Sep-21	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas, TV Mysteries	After crossing paths at a party, a Cape Town teen sets out to prove whether a private-school
s3	TV Show	Ganglan ds	Julien Leclercq	Sami Bouajila, Tracy Gotoas,		24-Sep-21	2021	TV-MA	1 Season	Crime TV Shows, International TV Shows, TV Action &	To protect his family from a powerful drug lord, skilled thief Mehdi and his expert team of robbers
s4	TV Show	Jailbirds New				24-Sep-21	2021	TV-MA	1 Season	Docuseries, Reality TV	Feuds, flirtations and toilet talk go down among the incarcerated women at the Orleans Justice Center
s5	TV Show	Kota Factory		Mayur More, Jitendra Kumar,	India	24-Sep-21	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows, TV	In a city of coaching centers known to train Indiaâ€™s finest collegiate minds, an earnest but

IV. Bucket Contents

Following **data** & **support** file has been uploaded:

- **netflix_titles.csv**

Source: Kaggle

- **manifest.json**: it was updated with the appropriate URI so that connection to dataset would go to the proper address.

V. Amazon Quicksight

- Quicksight, need to be created as an individual application and connected using updated manifest file with the previously uploaded dataset. This is where the edit of manifest file is significant.

- Quicksight had to access to S3 for connection purpose. It did not costs at the moment but had to delete the resource use after activities were done to avoid costing.

New S3 data source

×

Data source name

kaggle-netflix

Upload a manifest file

○ URL ○ Upload

https://aws-quicksight-netflixviz.s3.us-east-1.amazonaws.com/manifest.json

Connect

ⓘ
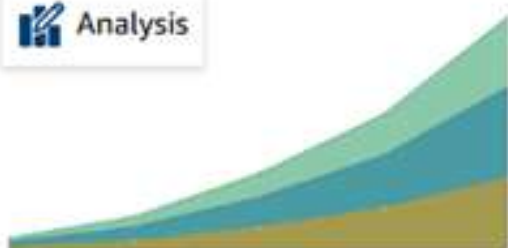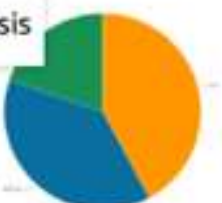
VI. Visualization

- To initiate visualization, columns were dragged into AutoGraph space by choosing the appropriate visualizations type and configuring its settings to modify as per the need of analytics.

No. of Movies, TV Shows by Release Year
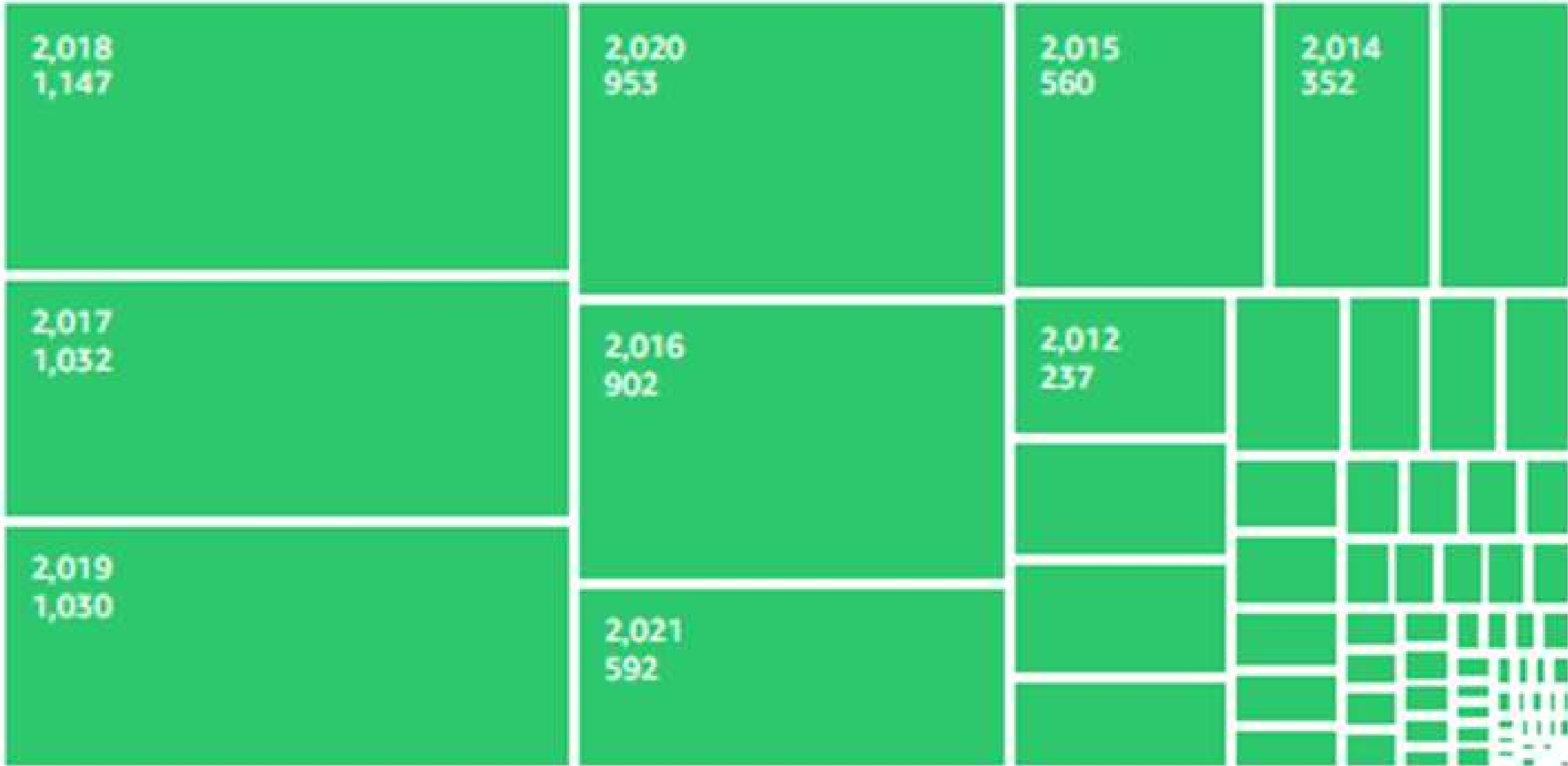
No. of Movies, TV Shows by Release Year & Title

SHOWING TOP 50 IN RELEASE_YEAR AND TOP 3 IN TYPE

Release Year	Movie	TV Show
2021	46.79%	53.21%
2020	54.25%	45.75%
2019	61.46%	38.54%
2018	66.87%	33.13%
2017	74.32%	25.68%
2016	72.95%	27.05%
2015	71.07%	28.93%
2014	75.00%	25.00%
2013	78.13%	21.88%
2012	73.00%	27.00%
2011	78.38%	21.62%

Type

- Movie
- TV Show
- Other
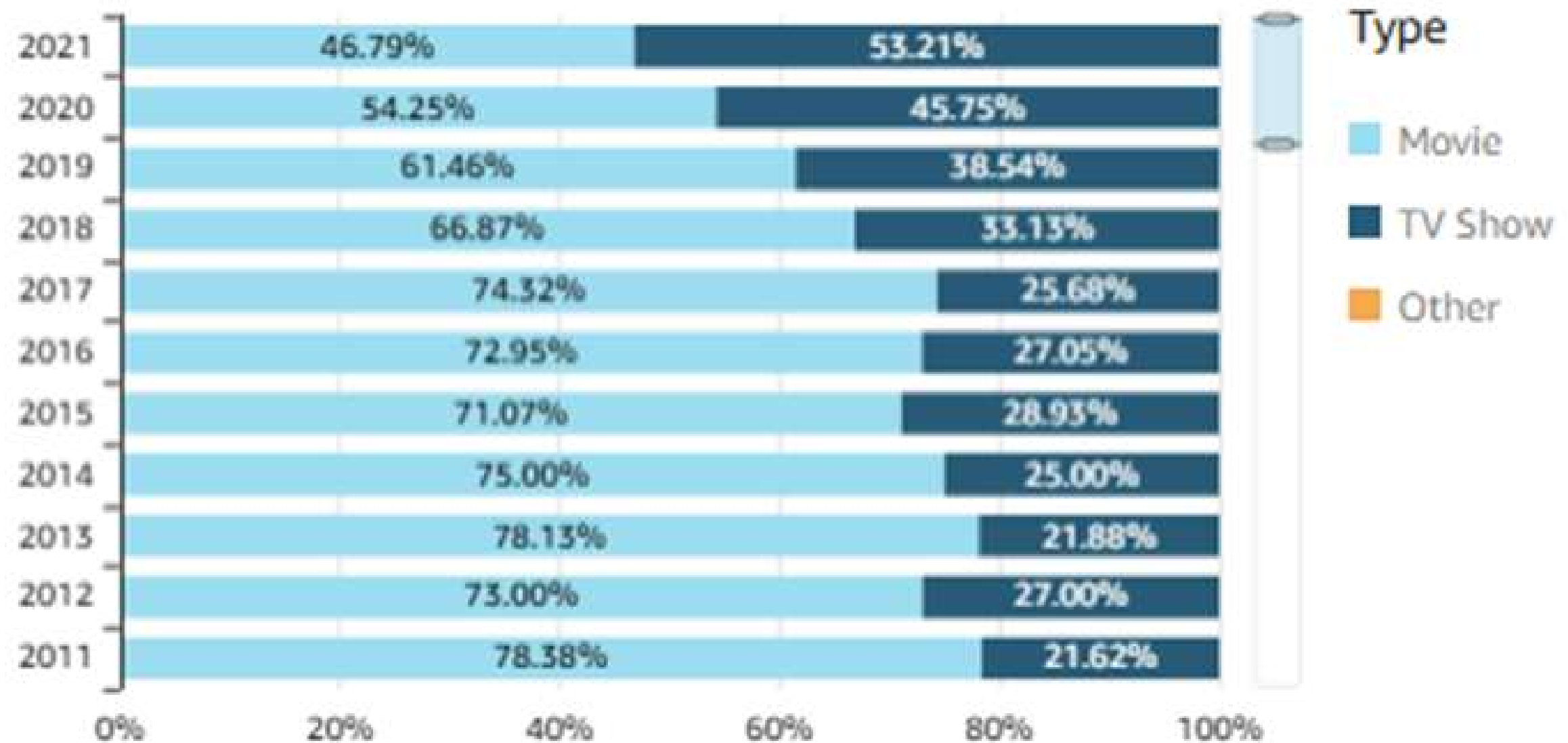
VII. Data Preparation for Time-Bound Analytics

- For Time-bound Analysis filters were used here to subset from the data columns excluding irrelevant data. Here, only 5 categories were filtered for the period of 2015 and onwards.

No. of Listing Per Selected Categories

Category	No. of Listings
Action & Adventure	128
Thrillers	65
Movies	57
TV Dramas	35
TV Shows	16

No. of Listing Per Selected Categories

184

TV Shows

TV Dramas

Action & Adventu...

Movies

Thrillers

Listed In

- Action & A...
- Thrillers
- Movies
- TV Dramas
- TV Shows

No. of Listing by Countries

Country	No. of Releases
Canada	12
United Kingdom	11
United Kingdom, ...	10
Australia	4
United States, U...	4
India	3
United States, C...	3
United States, G...	3
France, United S...	2
Japan	2
Spain	2

Axis: 0, 2, 4, 6, 8, 10, 12
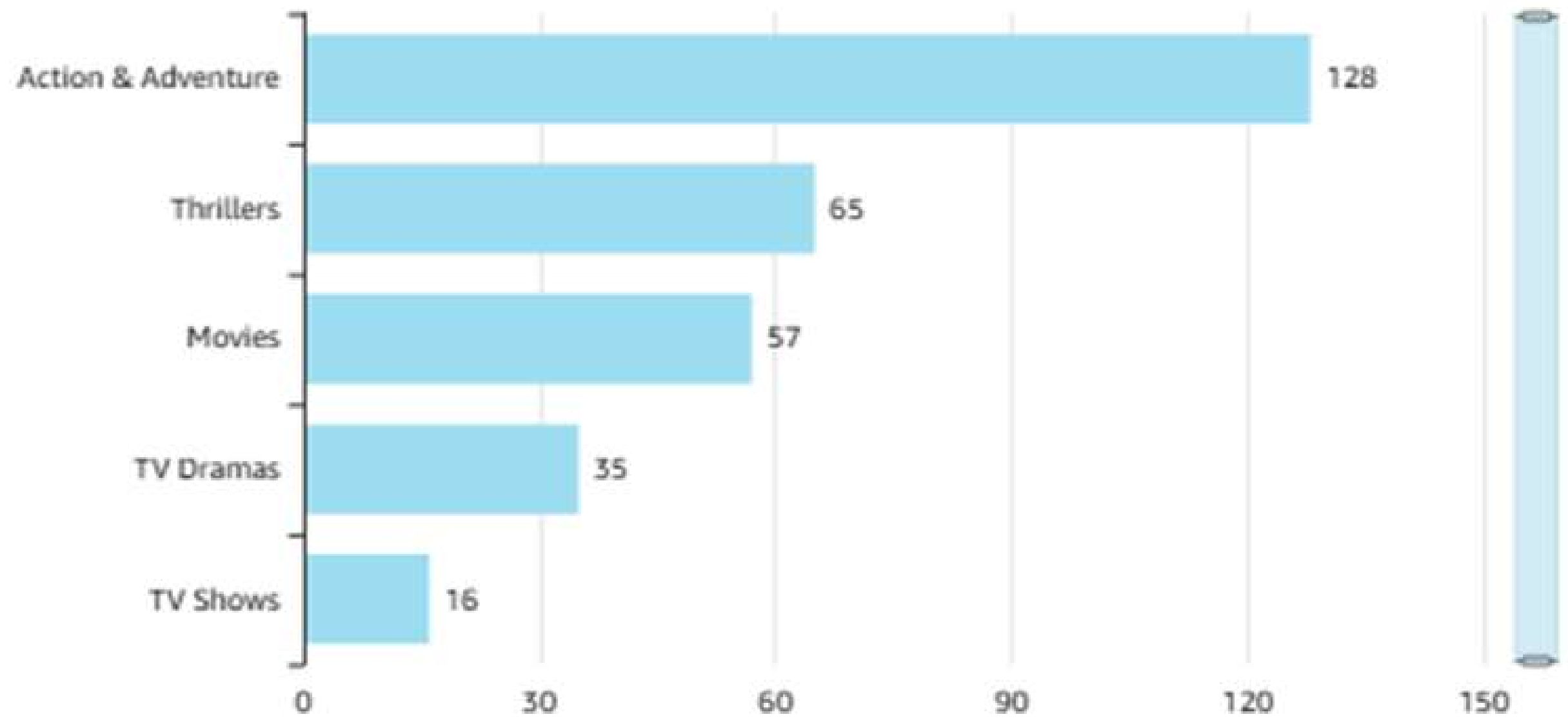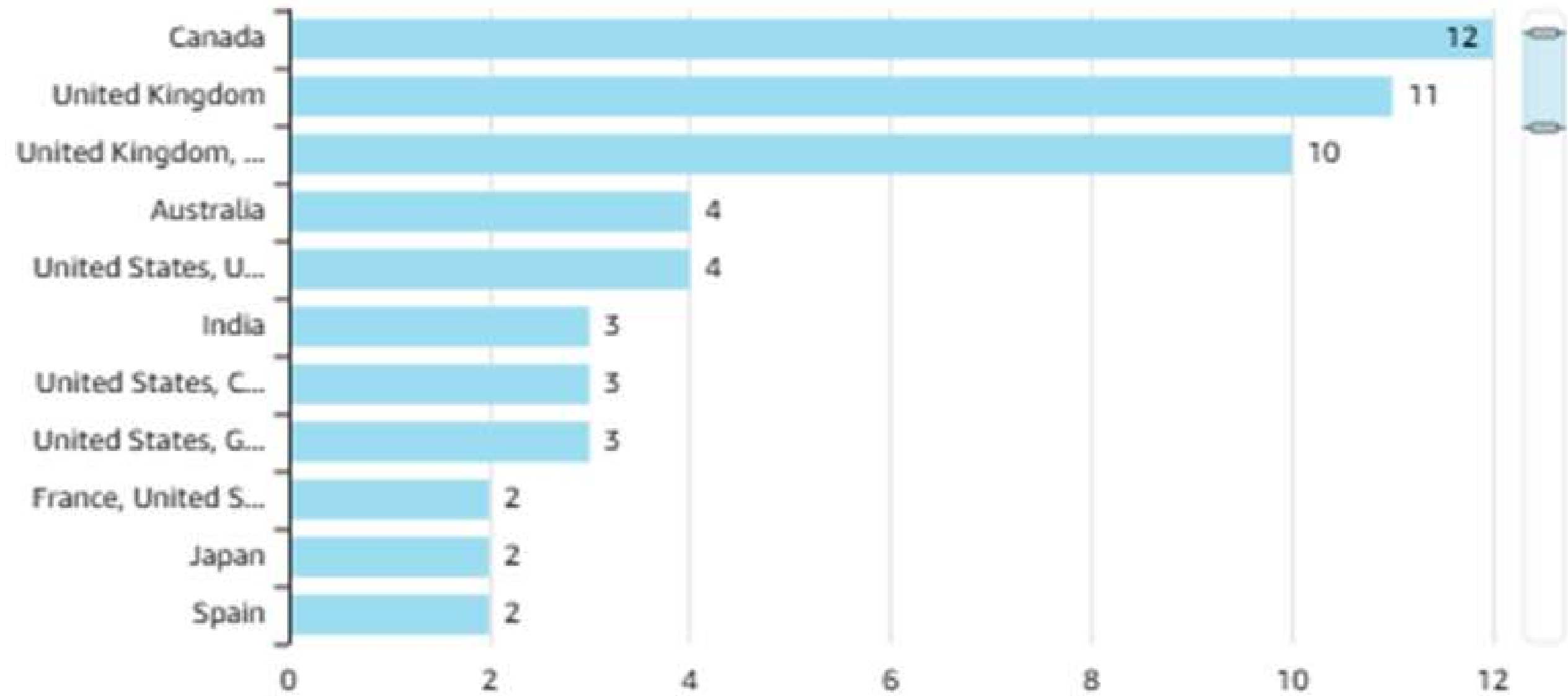
No. of Releases

- Observe the no. of Movies and TV Shows release at the initial and last 10 years. Initially, Movies were the most, but finally TV Shows were the only production.

No. of Releases Per Year

release_year	type	title
1942	Movie	2
1943	Movie	3
1944	Movie	3
1945	Movie	3
1946	Movie	1

1947	Movie	1
1954	Movie	2
1955	Movie	3
1956	Movie	2
1958	Movie	3

2012	TV ...	64
2013	TV ...	63
2014	TV ...	88
2015	TV ...	162
2016	TV ...	244
2017	TV ...	265

2018	TV ...	380
2019	TV ...	397
2020	TV ...	436
2021	TV ...	315

VIII. Dashboard Preparation & Publishing

- Titles of the graphs were updated for appropriate title.

- Exporting features of either of pdf or image formats were observed.

- Finally the dashboard was allowed to publish and similarly links for sharing was also available.
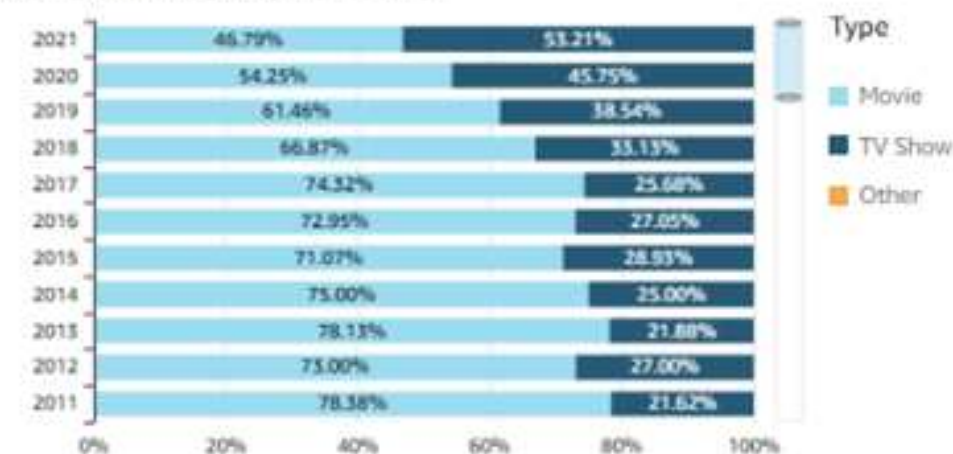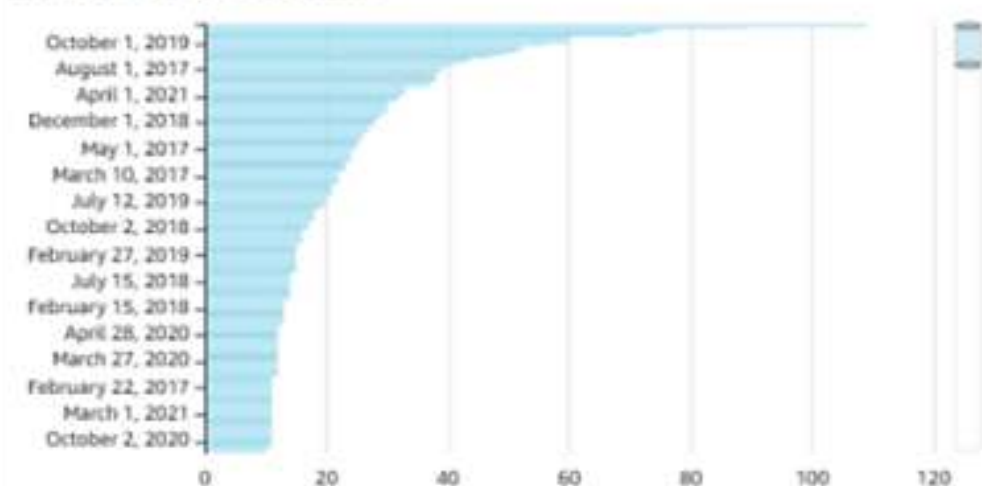
No. of Movies, TV Shows by Release Year

2,018 1,147	2,020 953	2,015 560	2,014 352
2,017 1,032	2,016 902	2,012 237	
2,019 1,030	2,021 592		

No. of Releases Per Year

release_year	type	title
1989	TV ...	1
1990	TV ...	3
1991	TV ...	1
1992	TV ...	3
1993	TV ...	4
1994	TV ...	2
1995	TV ...	2
1996	TV ...	3
1997	TV ...	4
1998	TV ...	4
1999	TV ...	7
2000	TV ...	4
2001	TV ...	5
2002	TV ...	7
2003	TV ...	10
2004	TV ...	9
2005	TV ...	13
2006	TV ...	14
2007	TV ...	14
2008	TV ...	23
2009	TV ...	34
2010	TV ...	40
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2013	TV ...	63
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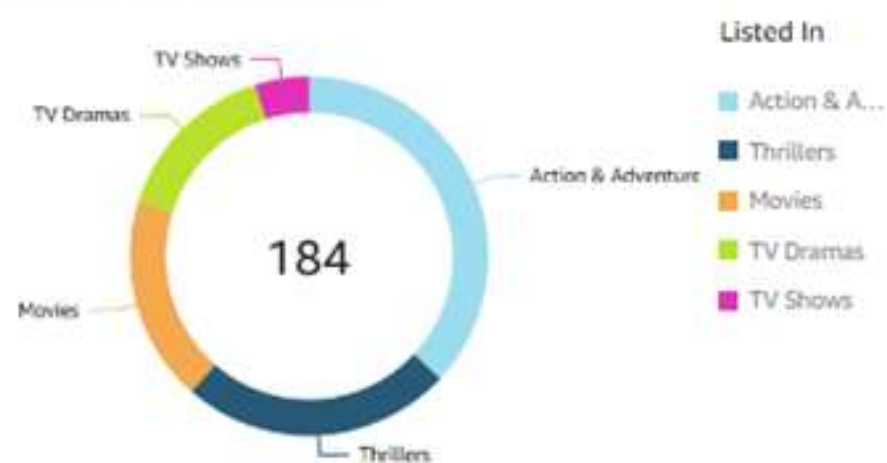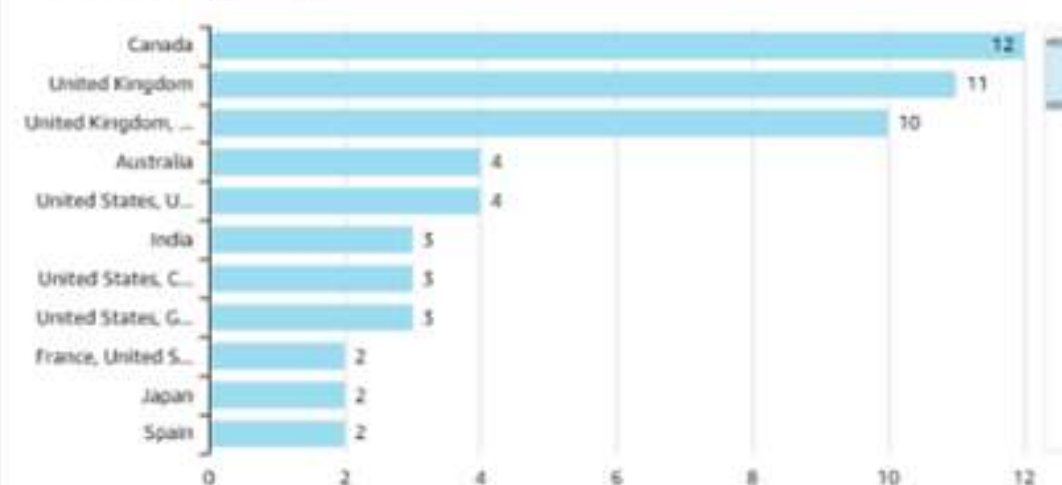
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Type
- Movie
- TV Show
- Other

Count of Title by Date_added

(horizontal bar chart with dates: October 1, 2019; August 1, 2017; April 1, 2021; December 1, 2018; May 1, 2017; March 10, 2017; July 12, 2019; October 2, 2018; February 27, 2019; July 15, 2018; February 15, 2018; April 28, 2020; March 27, 2020; February 22, 2017; March 1, 2021; October 2, 2020)

No. of Listing Per Selected Categories

Category	Value
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No. of Listing Per Selected Categories

Donut chart center: **184**

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No. of Listing by Countries

Country	Value
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United Kingdom	11
United Kingdom, ...	10
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United States, U...	4
India	3
United States, C...	3
United States, G...	3
France, United S...	2
Japan	2
Spain	2

IX. Key Learning

- Setting up Amazon S3 was straightforward, while the initial configuration for Amazon QuickSight felt a bit confusing. However, the default setup proved to be highly effective for standard use cases.

- Amazon QuickSight is an excellent, interactive analytics tool. Creating visualizations was easier than expected, thanks to its user-friendly interface and helpful guided prompts.

- The variety of visualization types and the ability to apply filters and calculated measures stood out as game-changing features, making data analysis more insightful and efficient.

- Features like dashboard collaboration and exporting options further enhance its usability, making it a fantastic tool for both individual and team analytics.

Exploring the Multifaceted Benefits of Amazon QuickSight

Amazon QuickSight

- User-Friendly Interface
- Visualization Types
- Filtering and Calculated Measures
- Dashboard Collaboration
- Exporting Options