Songs Analysis

Using PowerBI

A project under Mentorness internship

Project Objectives:

- Conduct a comprehensive analysis of YouTube songs data using Power BI
- Provide insights into performance, popularity, and user engagement
- Aid content creators and stakeholders in optimizing YouTube song content

- Dataset Description:
- Attributes include video ID, channel title, title, description, tags, published date, view count, like count, favorite count, comment count, video duration, video definition, and caption details

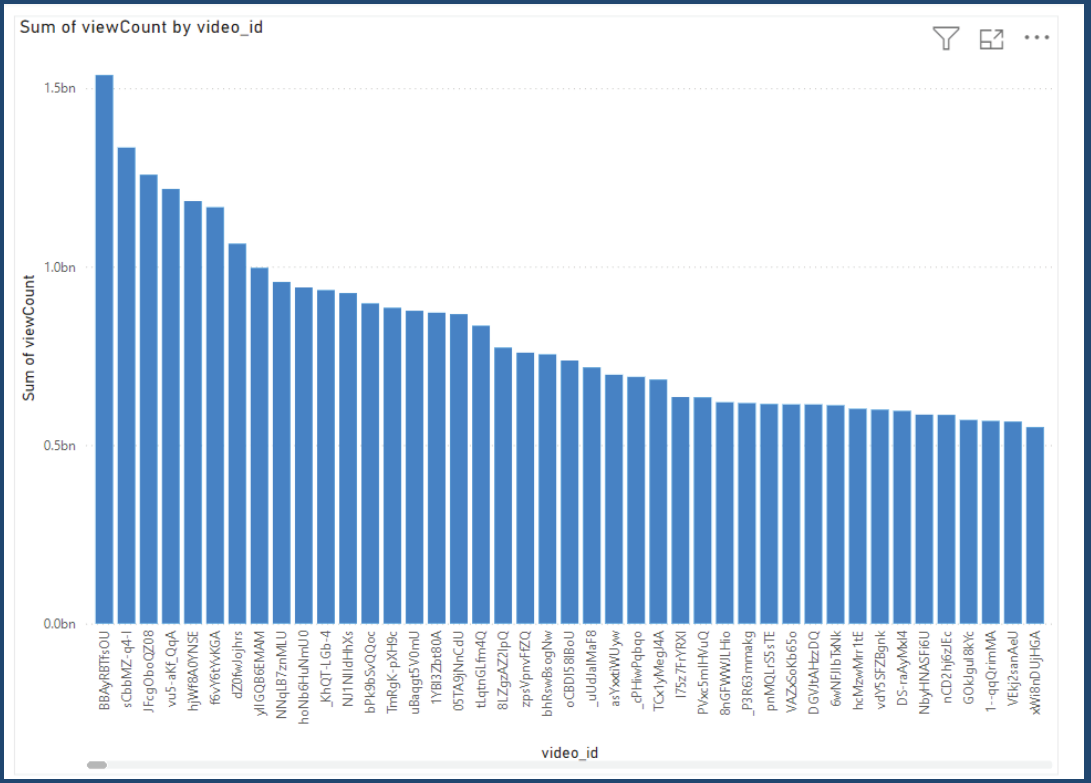
Data Cleaning and Preparation

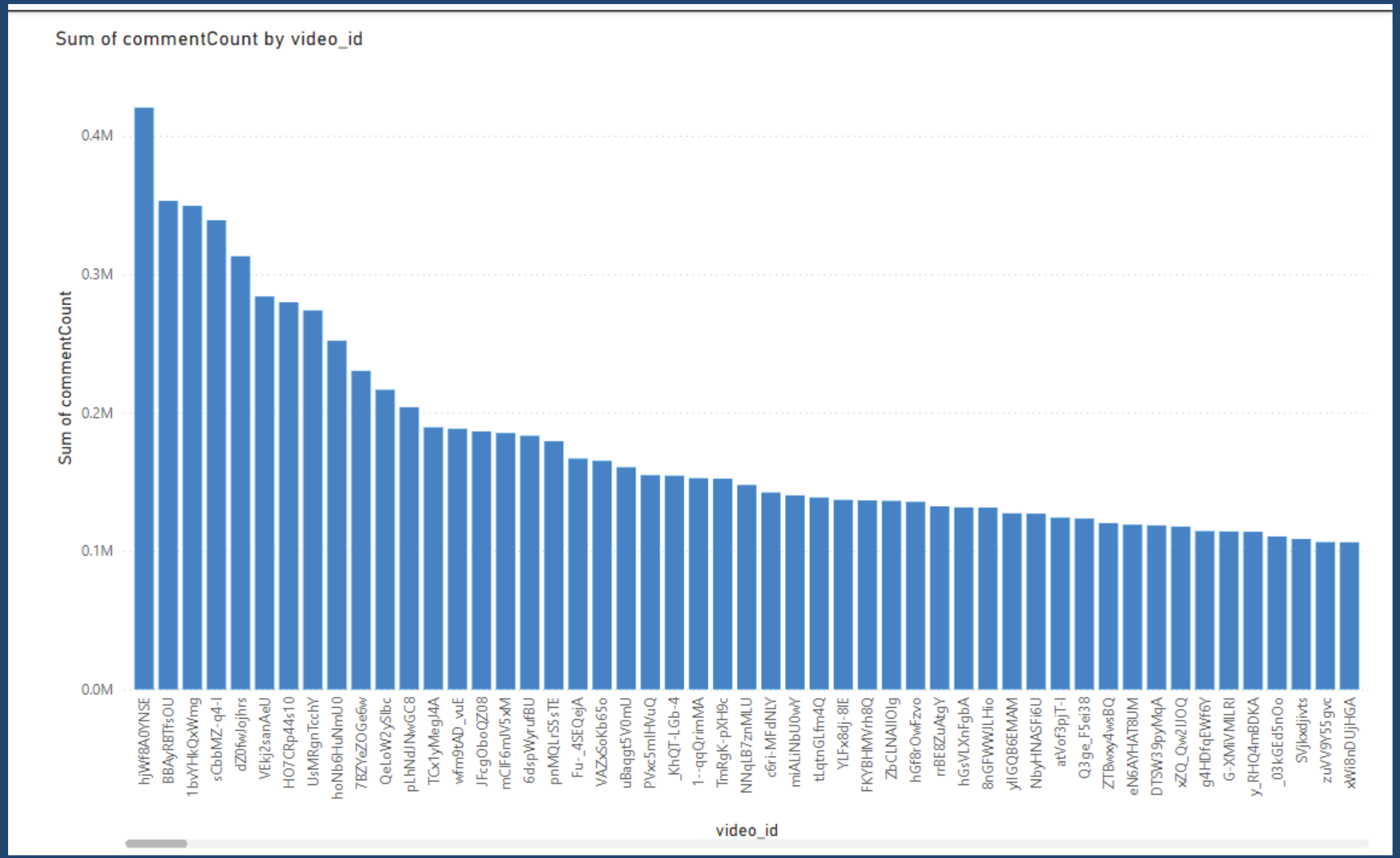
- Steps Taken:
- Loaded dataset into Power BI
- Converted published date and time to DateTime format
- Converted video duration to seconds

- Data Types and Conversions:
- Published Date: Date/Time
- Duration: Converted ISO 8601 format to seconds

Exploratory Data Analysis (EDA)

- Total comments, likes and views
- Distribution of View Counts, Likes, and Comments:
- Created bar chart to visualize distributions
- Analyzed the spread and central tendencies of key metrics




Sum of commentCount by video_id
Sum of commentCount
0.4M
0.3M
0.2M
0.1M
0.0M
video_id
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BBAyRBTfsOU
1bvYHkQxWmg
sCbbMZ-q4-I
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VEkj2sanAeU
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eN6AYHAT8UM
DTSW39pyMqA
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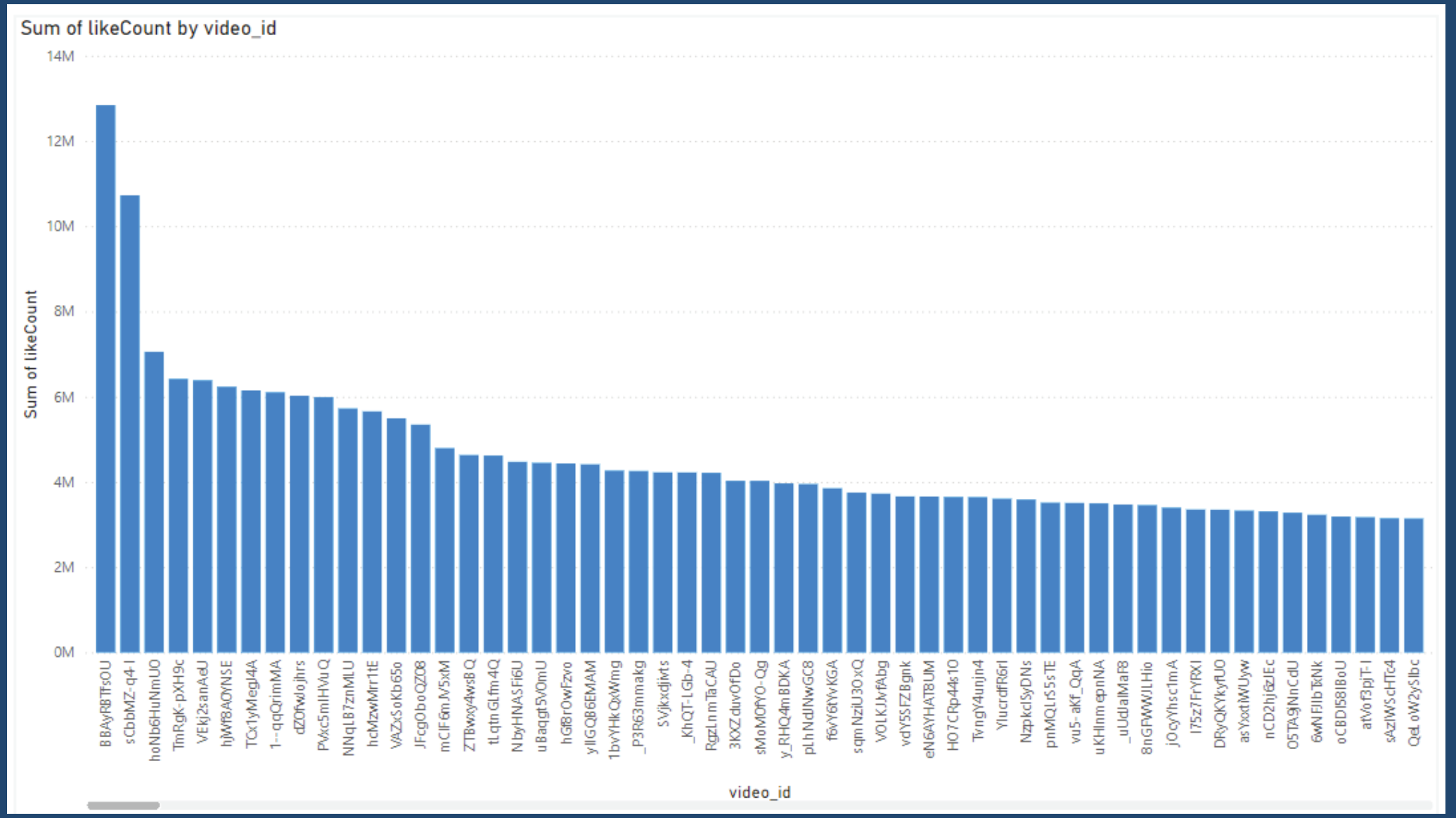
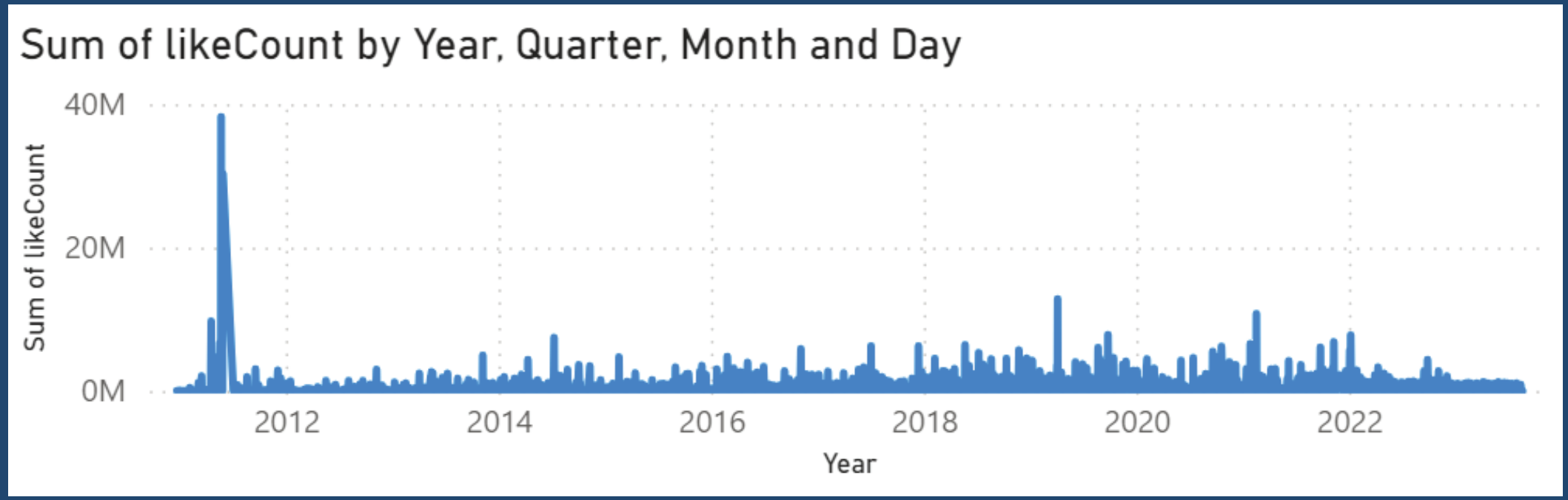
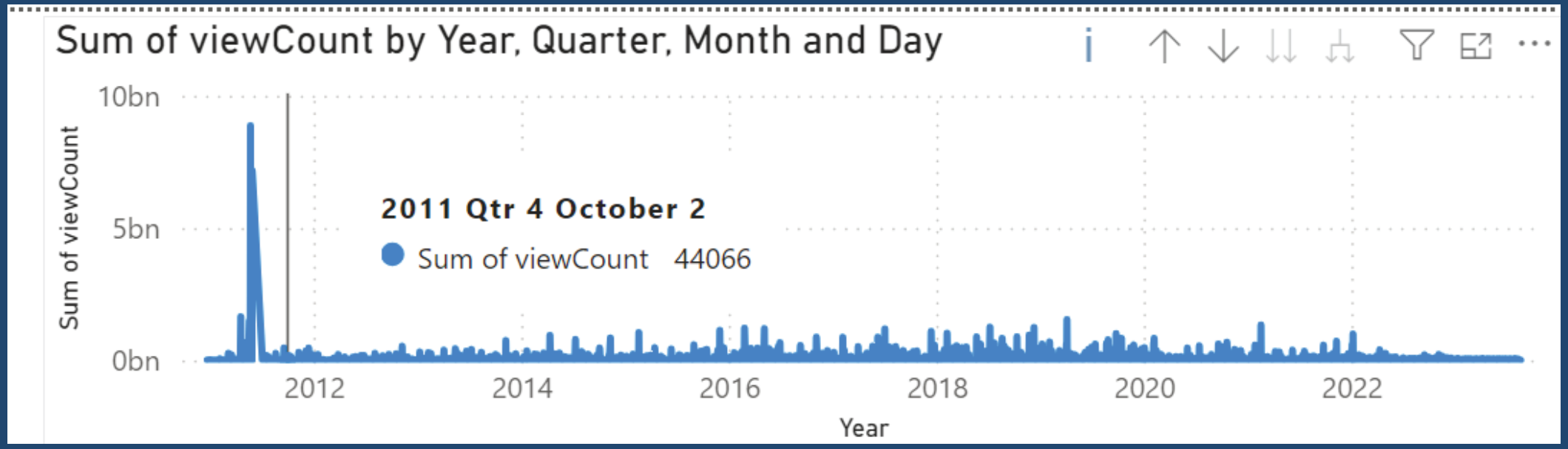
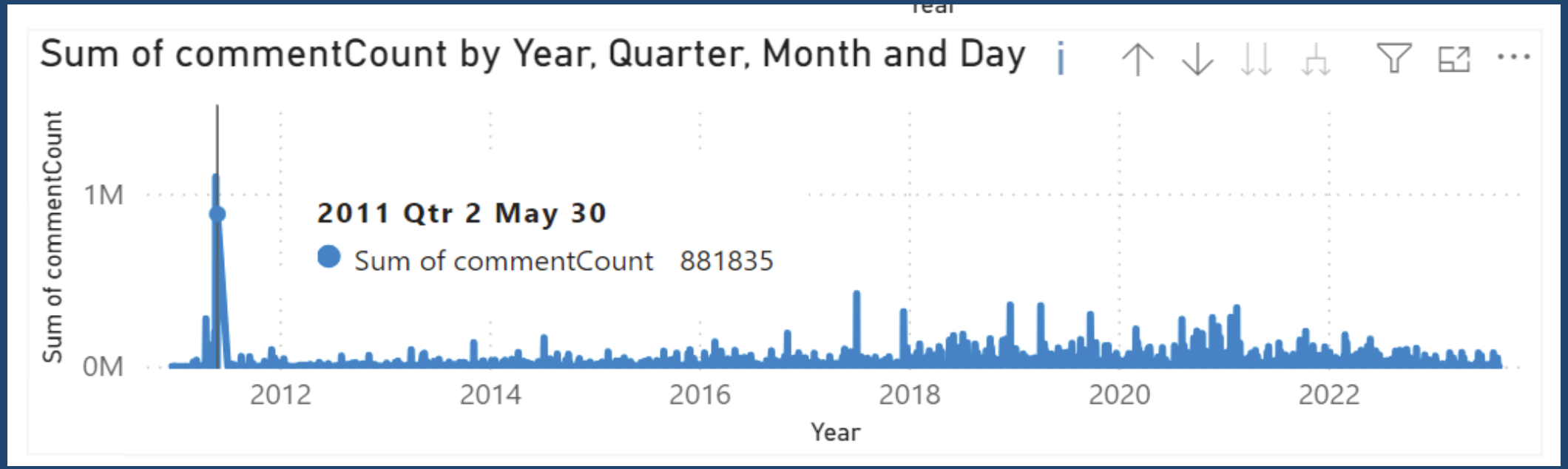

Sum of likeCount by video_id
Sum of likeCount
14M
12M
10M
8M
6M
4M
2M
0M
video_id

- **Trends in Popularity and Engagement:**
- Created line charts to identify trends over time
- Analyzed how view counts, like counts, and comment counts change over time



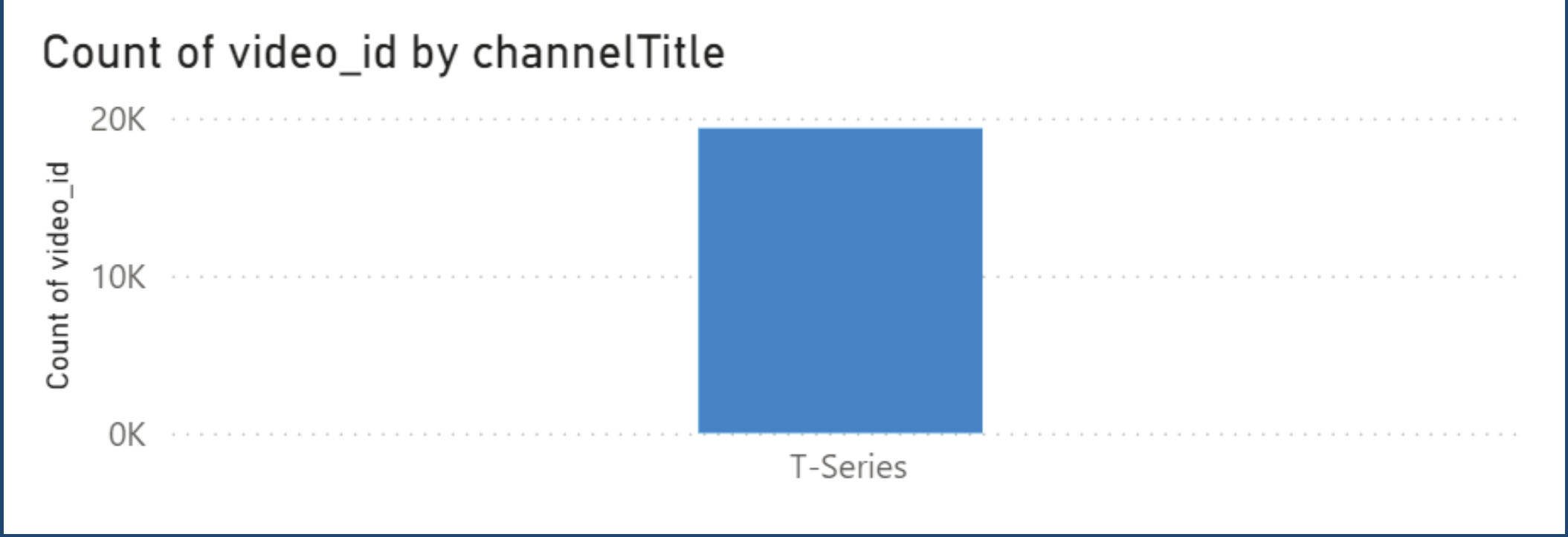

Sum of viewCount by Year, Quarter, Month and Day
10bn
5bn
0bn
Sum of viewCount
2011 Qtr 4 October 2
Sum of viewCount 44066
2012
2014
2016
2018
2020
2022
Year


Sum of commentCount by Year, Quarter, Month and Day
1M
0M
Sum of commentCount
2011 Qtr 2 May 30
Sum of commentCount 881835
2012
2014
2016
2018
2020
2022
Year

Content and Channel Analysis

Distribution of Videos Across Channels:

- Created bar charts to show the number of videos per channel
- Analyzed the spread of content across different channels



Popular Tags and Their Correlation with View Counts:

- Created tables and scatter plots to display tags and associated view counts
- Analyzed the correlation between tags and view counts

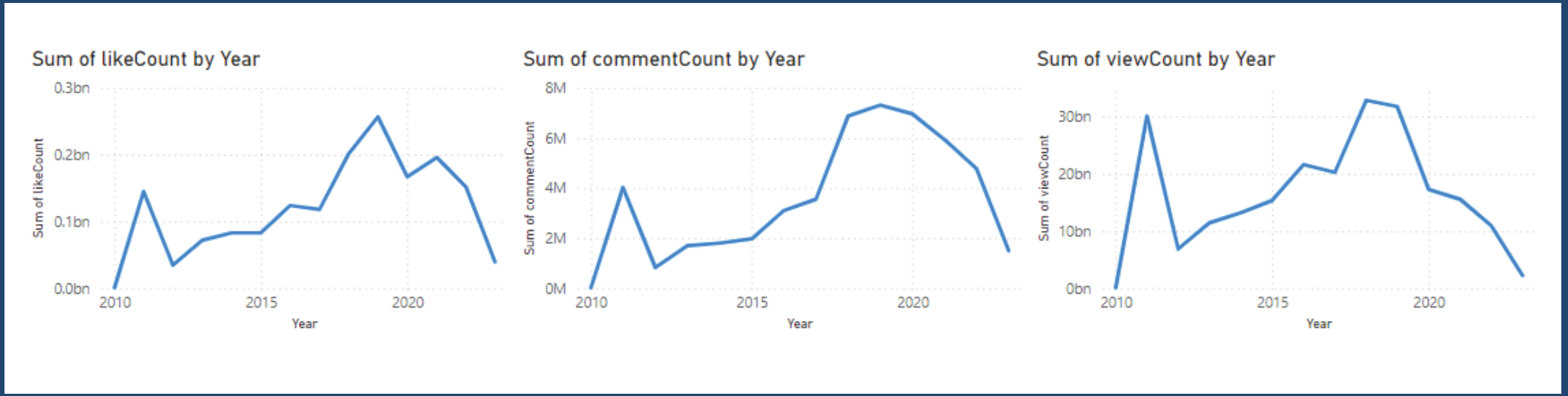
tags	
['श्री कृष्णा गोविंद हरे मुरारी', 'Shri Krishna Govind Hare Murari', 'Krishna Bhajans', 'Krishna Songs', 'Sri Krishna Songs', 'New Krishna Bhajans', 'Janmashtmi songs', 'Krishna Songs Hindi', 'Hare Krishna', 'Lord Krishna', 'Sri Krishna', 'Krishan radha', 'bhajan krishan', 'Krishna', 'Krishan', 'Songs', 'janmashtami special', 'krishna bhajan', 'krishna songs', 'shri krishna songs', 'Sri Krishna Govinda', 'Govind Bolo Hari Gopal Bolo', 'bhajan', 'songs', 'janmashtami songs', 'कृष्ण', 'krishan', 'krishna', 'janmastami', 'krishna bhajans']	61935877
['गणेश चतुर्थी 2017', 'tseries offical channel', 'ganesh chaturthi', 'ries', 'hindi songs', 'latest ganesh son', 'new songs', 'movie songs', 'ganesh chaturthi songs', 'bollywood songs', 'ganpati bappa morya', 'songs', 'ganesh chaturthi 2017', '2017', 'film songs', 'bollywood', 'latest hindi songs', 'latest songs', 'गणेश चतुर्थी', 'Deva shree ganesha', 't-series music']	2173968
['कबीर के दोहे', 'सन्त कबीर', 'कबीरदास', 'poet', 'popular dohe', 'Popular Dohe', 'Kabir', 'kabir dohe', 'kabir dohe song', 'jubin nautiyal new song', 'jubin kabir dohe', 'Kabir dohe', 'kabir ke dohe', 'dohe of kabir', 'famous kabir dohe', 'best kabir ke dohe', 'kabir dohas', 'Famous Kabir Ke Dohe', 'tseries', 'jubin nautiyal songs', 'jubin nautiyal', '(कबीर दोहे)']	65190810
['कबीर के दोहे', 'सन्त कबीर', 'कबीरदास', 'poet', 'popular dohe', 'Popular Dohe', 'Kabir', 'kabir dohe', 'kabir dohe song', 'jubin nautiyal new song', 'jubin kabir dohe', 'Kabir dohe', 'kabir ke dohe', 'dohe of kabir', 'famous kabir dohe', 'best kabir ke dohe', 'kabir dohas', 'Famous Kabir Ke Dohe', 'tseries', 'jubin nautiyal songs', 'jubin nautiyal', '(कबीर दोहे)', 'कबीर के दोहे और उनके अर्थ', 'कबीर के दोहे मीठी वाणी']	467558
['zumba dance workout', 'zumba dance party', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance workout on bollywood songs', 'zumba dance songs', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'Alesia Raut', 'salsa', 'Sucheta Pal', 'zumba videos', 'video', 'tseries', 'bollywood', 'songs', 'song', 'party songs', 'dance steps', 'hangover', 'music video', 'mash up', 'music', 'mash up songs', 'mashup 2016', 'bollywood mashup', 'bollywood mashup 2016', 'hindi songs', 'bollywood songs', 'new songs']	73306
['zumba dance workout', 'ZUMBA Dance Fitness Party', 'ZUMBA Dance Fitness Party - Season 2', 'zumba dance party', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance workout on bollywood songs', 'zumba dance songs', 'zoom zumba dance fitness party', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'salsa', 'Sucheta Pal', 'zumba videos', 'season', 'video', 'tseries', 'bollywood', 'songs', 'song', 'party songs', 'dance steps', 'hangover', 'DJ Shillpi', 'dj shilpi']	81531
['zumba dance workout', 'ZUMBA Dance Fitness Party', 'ZUMBA Dance Fitness Party - Season 2', 'zumba dance party', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance workout on bollywood songs', 'zumba dance songs', 'zoom zumba dance fitness party', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'Alesia Raut', 'salsa', 'Sucheta Pal', 'zumba videos', 'zumba videos for beginners', 'season', 'video', 'tseries', 'bollywood', 'songs', 'song', 'party songs', 'dance steps', 'hangover']	1343815
['zumba dance workout', 'ZUMBA Dance Fitness Party', 'ZUMBA Dance Fitness Party - Season 2', 'zumba dance party', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance workout on bollywood songs', 'zumba dance songs', 'zoom zumba dance fitness party', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'Alesia Raut', 'salsa', 'Sucheta Pal', 'zumba videos', 'zumba videos for beginners', 'season', 'video', 'tseries', 'bollywood', 'songs', 'song', 'party songs', 'dance steps', 'hangover', 'episode 2']	81290
['zumba dance workout', 'ZUMBA Dance Fitness Party', 'ZUMBA Dance Fitness Party - Season 2', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance songs', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'salsa', 'Sucheta Pal', 'zumba videos', 'season', 'video', 'tseries', 'bollywood', 'songs', 'party songs', 'dance steps', 'hangover', 'Palak muchhal', 'palak muchhal songs', 'shadi style', 'wedding dance', 'indian wedding dance', 'wedding songs', 'shaadi songs', 'shadi songs']	141959
['zumba dance workout', 'divya khosla kumar', 'ZUMBA Dance Fitness Party', 'ZUMBA Dance Fitness Party - Season 2', 'zumba dance party', 'zoom zumba dance party season 2', 'zoom zumba dance', 'zumba dance', 'zumba dance workout on bollywood songs', 'zumba dance songs', 'zoom zumba dance fitness party', 'zoom tv', 'zumba', 'fitness', 'party', 'dance', 'workout', 'Pallavi Sharda', 'salsa', 'Sucheta Pal', 'zumba videos', 'season'	938659
Total	**229373638977**

Sum of viewCount by tags
Sum of viewCount
0.4bn
0.3bn
0.2bn
0.1bn
0.0bn
tags

Temporal Trends

Metrics Over Time:

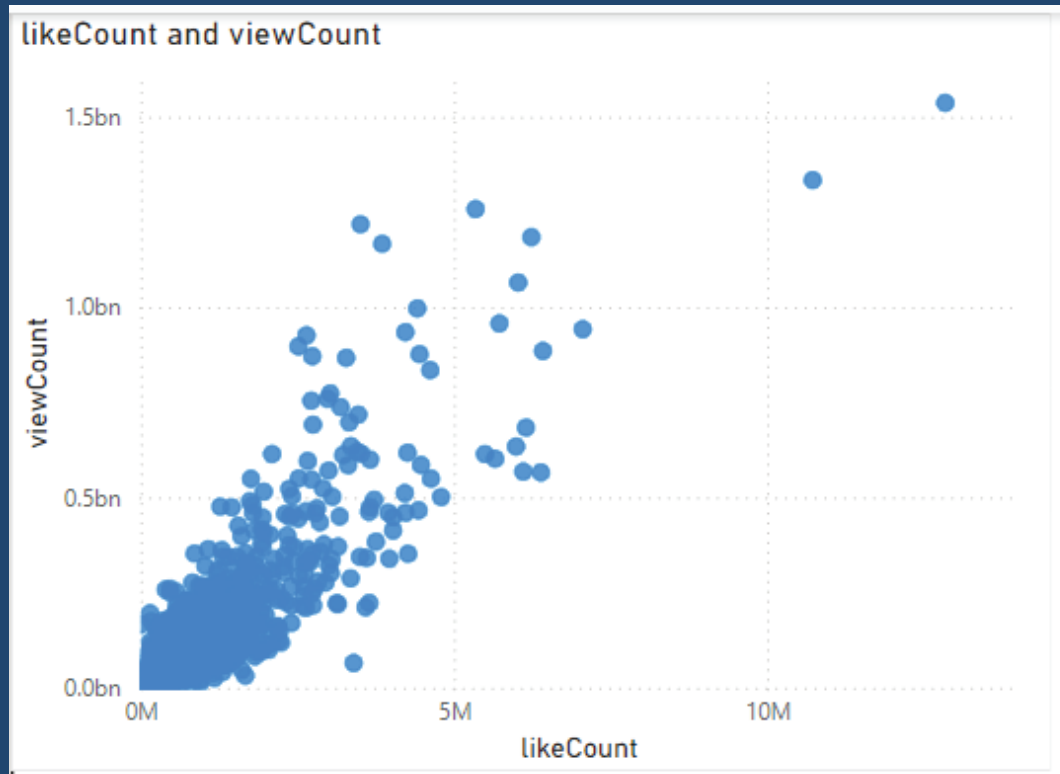
- Created line charts to explore how metrics vary over time
- Analyzed trends in view counts, like counts, and comment counts

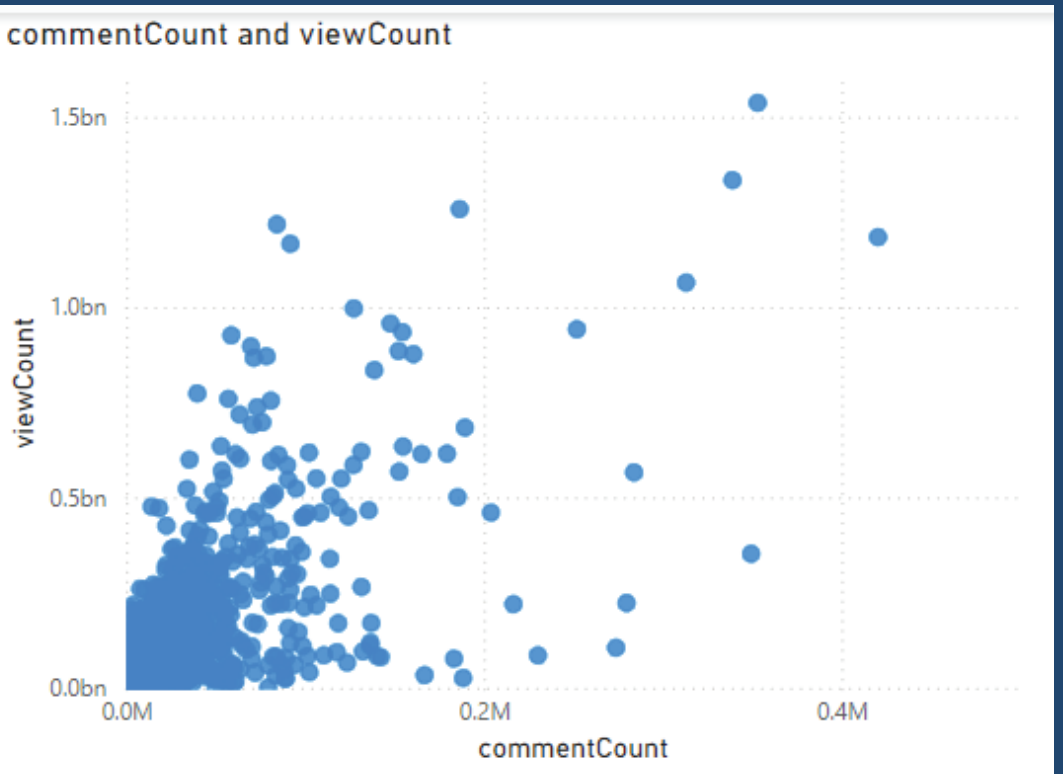


User Engagement Insights:

Relationships Between Likes, Comments, and Views:

- Created scatter plots to investigate relationships
- Analyzed how likes, comments, and views correlate with each other





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