

Project Report

Project Title

Subscribers Galore : Exploring World's Top Youtube Channels

1. INTRODUCTION:

a. Project Overview:

The "Subscribers Galore" data analytics project aims to explore and analyze the world's top YouTube channels to gain insights into their subscribers, content, and growth strategies. With over 2 billion logged-in monthly users, YouTube is one of the most influential social media platforms, making it essential for content creators and businesses to understand the dynamics of successful channels. This project will use data analytics techniques to uncover patterns, trends, and correlations among top YouTube channels, helping creators and marketers make informed decisions for their own channels.

Key Objectives:

- 1. Data Collection:** Gather data from various sources, including the YouTube API, web scraping, and publicly available datasets, to create a comprehensive dataset of top YouTube channels, including their video metrics, demographics, and historical data.
- 2. Data Cleaning and Preprocessing:** Clean and preprocess the collected data to ensure its quality, consistency, and usability for analysis. This involves handling missing data, removing outliers, and standardizing data formats.
- 3. Exploratory Data Analysis (EDA):** Conduct EDA to understand the characteristics and distributions of variables. Analyze the correlation between factors such as video frequency, content categories, and subscriber growth.
- 4. Content Analysis:** Analyze the content types, topics, and keywords that attract the most subscribers. Determine

which types of videos (e.g., tutorials, vlogs, reviews) perform best for different channel categories.

5. Subscriber Growth Patterns: Identify patterns in subscriber growth, such as seasonal trends, sudden spikes, or gradual increases, and determine the factors influencing growth.

6. Demographic Analysis: Investigate the demographics of subscribers, including age, gender, and location. Understand if the audience profile varies between different channel categories.

7. Competitive Analysis: Compare and contrast different channels within the same category and identify strategies that set successful channels apart from others.

8. Predictive Modeling: Develop predictive models to forecast future subscriber counts based on historical data, allowing creators and businesses to set growth targets.

9. Recommendations and Insights: Provide actionable insights and recommendations for content creators, businesses, and marketers to optimize their YouTube channel growth, content strategies, and audience engagement.

10. Visualization and Reporting: Create visualizations, dashboards, and a comprehensive report to communicate the findings and insights effectively.

Expected Outcomes:

1. A detailed dataset of top YouTube channels.
2. Insights into the factors influencing subscriber growth.
3. Recommendations for optimizing content and channel strategies.
4. Predictive models for subscriber count forecasting.
5. Visualizations and a comprehensive report for stakeholders.

Benefits:

- Content creators can optimize their content strategies to attract more subscribers.
- Businesses can make data-driven decisions for influencer marketing and advertising.
- Marketers can better understand audience demographics and preferences.
- Enthusiasts and researchers gain valuable insights into the YouTube ecosystem.

The "Subscribers Galore" project will enable a deeper understanding of YouTube channel success, helping individuals and organizations thrive in the competitive world of online video content creation and promotion.

b. Purpose:

The purpose of the "Subscribers Galore: Exploring World's Top YouTube Channels" project is to provide valuable insights and actionable information for content creators, businesses, marketers, and researchers within the YouTube ecosystem. The project serves the following key purposes:

1. Audience Growth Optimization: To help content creators understand the dynamics behind subscriber growth and provide recommendations on how to optimize their content and channel strategies for increased subscribership.

2. Business Decision Support: To assist businesses in making data-driven decisions for influencer marketing and advertising by identifying high-performing YouTube channels and understanding the characteristics that attract audiences.

3. Audience Understanding: To offer marketers a deeper understanding of YouTube audience demographics, preferences, and behavior, enabling them to tailor their strategies to engage and target their desired audience more effectively.

4. Research and Insights: To provide enthusiasts and researchers with valuable insights into the world of YouTube, contributing to a broader understanding of online content creation, social media, and digital marketing trends.

5. Predictive Modeling: To develop models that can forecast future subscriber counts, allowing content creators and businesses to set growth targets and plan their strategies accordingly.

In summary, the project aims to serve the diverse needs of stakeholders in the YouTube community by extracting meaningful information from data, enabling them to improve their channels, make informed business decisions, and gain a deeper understanding of the YouTube platform and its users.

2. LITERATURE SURVEY

2.1 Existing Problem:

1. Content Saturation: High competition among content creators on YouTube makes it challenging to stand out and attract subscribers.

2. Algorithmic Changes: Frequent updates to YouTube's algorithms affect channel visibility and subscriber growth, often without clear documentation.

3. Audience Engagement: Maintaining viewer engagement and understanding effective engagement strategies is difficult in a distracting digital landscape.

4. Monetization Challenges: Creators depend on YouTube for income, and changes in monetization policies and ad revenue can impact their financial stability.

5. Data Fragmentation: Creators and marketers rely on fragmented and inconsistent data sources, hindering their ability to analyze and optimize channel performance effectively.

2.2 References:

<https://www.linkedin.com/pulse/exploring-worlds-top-10-most-subscribed-youtube-channels-winston/>

<https://nm.smartinternz.com/saas-guided-project/1/subscribers-galore-exploring-world-s-top-youtube-channels>

<https://www.forbesindia.com/article/explainers/most-subscribed-youtube-channels-in-the-world/87475/1>

https://en.wikipedia.org/wiki/List_of_most-subscribed_YouTube_channels

2.3 Problem Statement Definition

The problem statement for the "Subscribers Galore: Exploring World's Top YouTube Channels" project can be defined as follows:

"In the highly competitive landscape of YouTube content creation, content creators, businesses, and marketers face significant challenges related to standing out, growing their subscriber base, and optimizing content strategies. The problem at hand is the need to gain a comprehensive understanding of the factors influencing subscriber growth, audience engagement, and content performance on YouTube. This includes tackling issues such as content saturation, algorithmic changes, demographic shifts, and the dilemma of quality vs. quantity. Additionally, the fragmented nature of available data sources poses a challenge in deriving actionable insights."

The project aims to address these challenges by leveraging data analytics techniques to gather, analyze, and interpret data related to top YouTube channels. By doing so, it seeks to provide insights, recommendations, and predictive models to help content creators and businesses navigate the complexities of the YouTube platform, make informed decisions, and enhance their channel growth and success."

3. IDEATION & PROPOSED SOLUTION:

3.1 Empathy Map Canvas

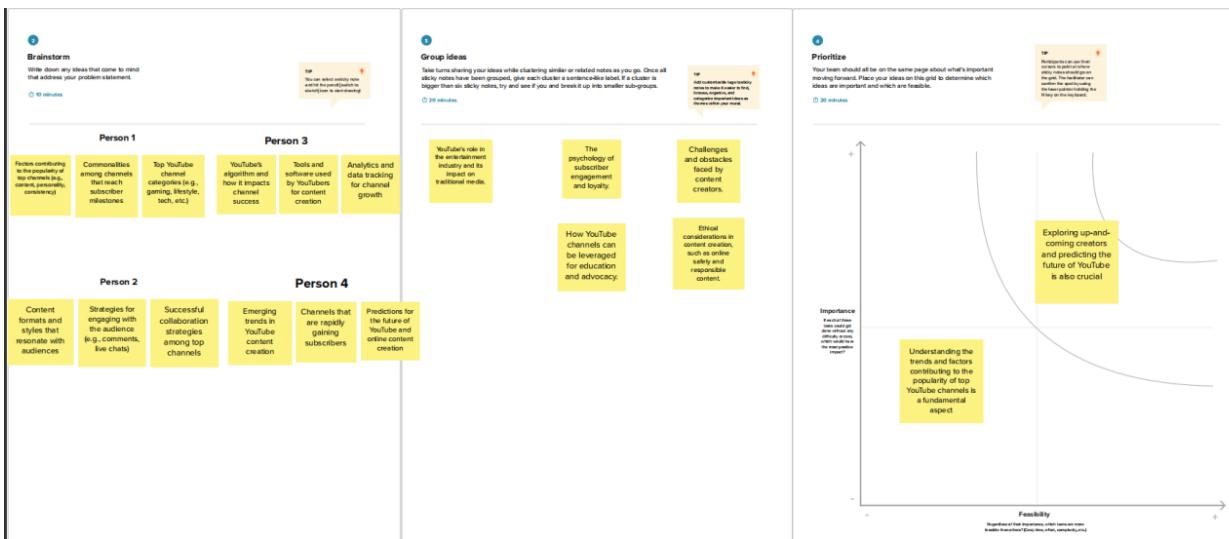


Develop shared understanding and empathy

Summarize the data you have gathered related to the people that are impacted by your work. It will help you generate ideas, prioritize features, or discuss decisions.



3.2 Ideation & Brainstorming:



4) REQUIREMENT ANALYSIS:

4.1 Functional Requirement:

1. Data Collection:

- The system must be able to collect data from various sources, including the YouTube API, web scraping, and publicly available datasets, to create a comprehensive dataset of top YouTube channels.
- Data collection should be automated and scheduled for regular updates.

2. Data Cleaning and Preprocessing:

- The system should clean and preprocess the collected data to ensure its quality, consistency, and usability for analysis. This includes handling missing data, removing outliers, and standardizing data formats.

3. Exploratory Data Analysis (EDA):

- The system must conduct EDA to analyze the characteristics and distributions of variables within the dataset.
- It should generate descriptive statistics and visualizations to provide an overview of the data.

4. Content Analysis:

- The system should analyze the types, topics, and keywords of videos on top YouTube channels to determine what content attracts the most subscribers.
- It should identify and categorize content types (e.g., tutorials, vlogs, reviews) that perform well for different channel categories.

5. Subscriber Growth Analysis:

- The system must identify patterns in subscriber growth, including seasonal trends, sudden spikes, and gradual increases.

- It should determine the factors that influence subscriber growth.

6. Demographic Analysis:

- The system should investigate the demographics of subscribers, including age, gender, and location.
- It should analyze whether the audience profile varies among different channel categories.

7. Competitive Analysis:

- The system must compare and contrast different channels within the same category.
- It should identify strategies that set successful channels apart from others.

8. Predictive Modeling:

- The system should develop predictive models to forecast future subscriber counts based on historical data.
- It should allow users to input parameters for forecasting and provide predictions.

9. Recommendations and Insights:

- The system should provide actionable insights and recommendations for content creators, businesses, and marketers to optimize their YouTube channel growth and content strategies.

10. Visualization and Reporting:

- The system should create visualizations, dashboards, and a comprehensive report to communicate the findings and insights effectively.
- It should support the export of reports and visualizations in various formats (e.g., PDF, Excel).

a. User Authentication and Access Control:

- The system should have user authentication and role-based access control to ensure data security and restrict access to authorized personnel.

b. Scalability and Performance:

- The system should be scalable to handle a growing dataset and increasing user demand.
- It should be optimized for performance to provide fast and responsive analytics.

C. Data Backup and Recovery:

- The system must regularly back up the collected data to prevent data loss in case of failures.
- It should have a data recovery plan in case of unexpected data corruption or loss.

d. Data Privacy and Compliance:

- The system should adhere to data privacy regulations and guidelines, ensuring the protection of user and subscriber data.

e. Documentation:

- The project documentation should be thorough and include user manuals, code documentation, and data dictionaries to facilitate understanding and usage.

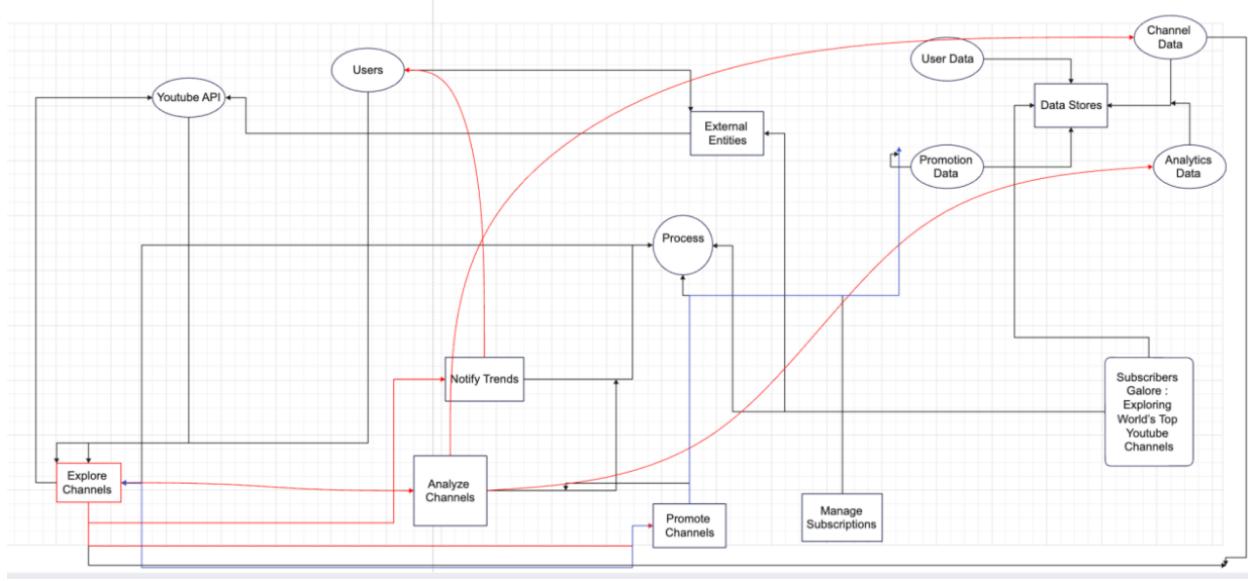
4.2 Non Functional Requirements:

- 1. Performance:** The system should provide fast and responsive access to data and analysis results, even when dealing with large datasets. Users should experience minimal delays in retrieving information.
- 2. Security:** Data security is paramount. The system must implement encryption, user authentication, and access controls to protect sensitive user and subscriber data from unauthorized access or breaches.
- 3. Scalability:** The system should be designed to handle growing data volume and user traffic. It should seamlessly adapt to increased demands without sacrificing performance.
- 4. Reliability:** The system should have minimal downtime and provide high availability. Scheduled maintenance or updates should be communicated in advance to minimize disruption.
- 5. Data Privacy:** Adherence to data privacy regulations (e.g., GDPR, CCPA) and best practices is crucial. All data collected or stored should respect legal and ethical standards, ensuring user privacy.
- 6. Usability:** The user interface should be intuitive and easy to navigate, catering to users with varying levels of technical expertise. A user-friendly design fosters effective usage.
- 7. Documentation:** Comprehensive system documentation should be available, including user manuals, code documentation, and data dictionaries. Clear instructions support users and administrators.
- 8. Training and Support:** Training resources and user support should be accessible to help users effectively utilize the system. A responsive support mechanism should be in place for addressing user questions and issues.
- 9. Load Balancing:** Implement load balancing mechanisms to evenly distribute incoming requests, ensuring that the system maintains efficient performance during peak usage periods.
- 10. Accessibility:** The system should be designed with accessibility in mind, conforming to WCAG standards. It should be usable by individuals with disabilities to promote inclusivity.

5)PROJECT DESIGN:

5.1 Data Flow Diagrams & User Stories:

Data Flow Diagram:



USER STORIES:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
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User A - YouTube Enthusiast	Discover Popular YouTube Channels	USG-01	<p>As User A, I want to explore and discover popular YouTube channels in various categories, so I can find new content to subscribe to.</p> <p>I can filter channels by categories like gaming, music, vlogs, etc.</p> <p>I can see a brief description and statistics of each channel, including the number of subscribers.</p>	The system should provide a homepage with recommended channels based on my viewing history.	High	Version 1.0
User B - Trend Follower	Stay Updated on Trending Channels	USG-02	<p>As User B, I want to receive notifications about trending YouTube channels, so I can stay up-to-date with the latest content.</p>	<p>The system should provide a "Trending Now" section on the homepage.</p> <p>It should send me push notifications when a new channel is trending.</p> <p>I can click on a notification to view the channel and subscribe if interested.</p>	Medium	Version 1.1
User C - Data Enthusiast	Detailed Channel Analytics	USG-03	<p>As User C, I want detailed analytics for YouTube channels, so I can analyze their growth and performance.</p>	<p>I can search for any YouTube channel and access detailed analytics.</p>	High	Version 1.2

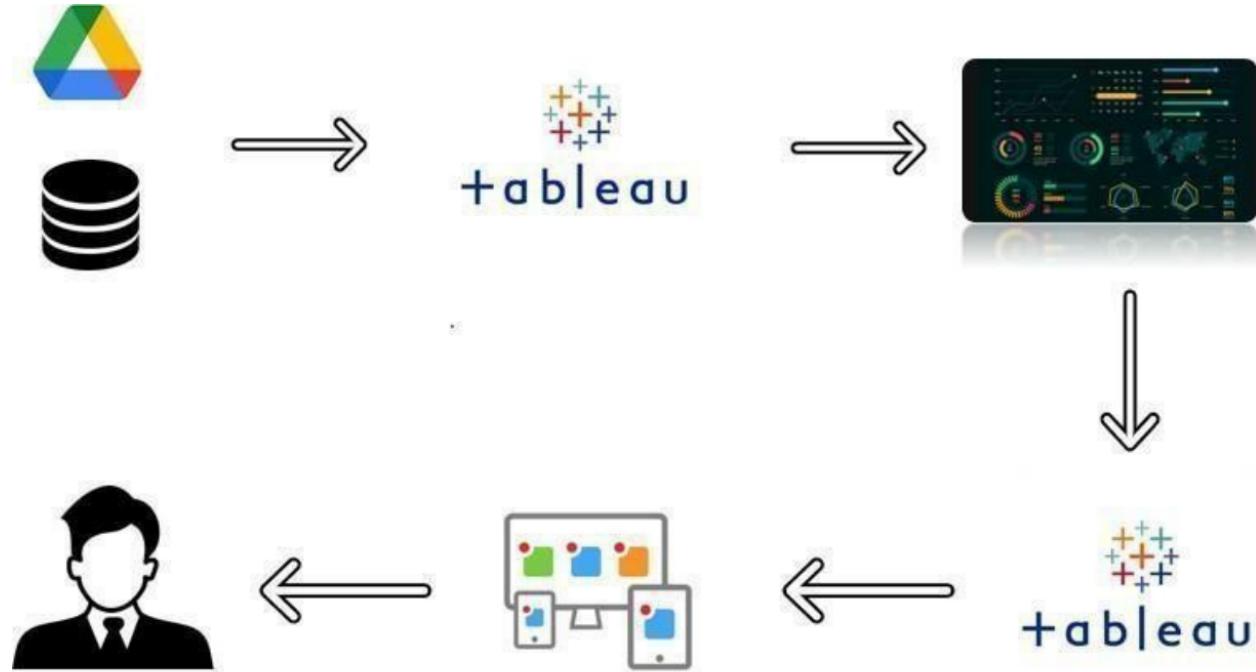
				<p>Analytics should include historical subscriber counts, daily views, and engagement metrics.</p> <p>I can export this data for further analysis.</p> <p>The system should provide visualizations for easy interpretation.</p>		
User D - Content Creator	Promote My Channel	USG-04	<p>As User D, I want to promote my own YouTube channel within the platform, so I can attract more subscribers.</p>	<p>I should have a profile for my channel with a description and promotional materials.</p> <p>I can connect my channel's analytics for in-depth insights.</p> <p>The platform should offer promotional opportunities such as featured spots for a fee.</p> <p>I can track the performance of my promotions.</p>	Medium	Version 1.2

5.2 Solution Architecture:

- **Data Collection:** Utilize the YouTube Data API and web scraping to gather information about top YouTube channels, including channel details, video statistics, and subscriber counts.
- **Data Storage:** Store the collected data in a database (relational or NoSQL) for efficient management and consider using a data warehouse for in-depth analytics.
- **Data Processing:** Implement ETL processes for data cleaning and transformation. Use batch and real-time processing for handling large datasets and immediate updates.
- **User Interface:** Develop a web or mobile application with data visualization for users to explore and interact with the collected data.
- **Search and Recommendations:** Implement search functionality and recommendation systems for user personalization.
- **Security and Compliance:** Prioritize data security, user privacy, and legal compliance. Ensure scalability, monitoring, and continuous improvement for long-term success.

6)PROJECT PLANNING & SCHEDULING:

6.1 Technical Architecture:



Technology Stack: Choose suitable technologies for web development, including programming languages,

frameworks, and databases, considering the project's requirements and scalability.

Data Collection and Storage: Create a system to collect and store data about top YouTube channels, using a combination of web scraping and API integration, then design an efficient database schema.

User-Friendly Interface: Develop an intuitive, responsive, and user-friendly front-end for displaying channel information, along with data analysis and visualization tools.

Security and Compliance: Implement robust security measures, user authentication, and comply with legal and ethical considerations related to data usage and user privacy.

Monitoring and Optimization: Continuously monitor system performance, apply performance optimizations, and maintain clear documentation to facilitate collaboration and troubleshooting.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Web Scraping Engine	Responsible for collecting data on top YouTube channels, such as subscriber counts, video counts, and more, from the web.	Python (Scrapy, BeautifulSoup), Web scraping libraries
2.	YouTube Data API	Interface with the YouTube Data API to access channel information and retrieve data such as video details, comments, and channel statistics.	YouTube Data API, OAuth 2.0
3.	Database	Justify the scalability of architecture (3 – tier, Micro-services)	PostgreSQL (or other relational databases), MongoDB (or other NoSQL databases)
4.	User Authentication	Provide secure user registration and login processes, including password hashing and account management.	OAuth 2.0, JWT (JSON Web Tokens)
5.	Front-End Application	Create a user-friendly web interface for users to search and explore top YouTube channels, including features like search, filters, and data visualization.	HTML, CSS, JavaScript, React (or other front-end libraries), Responsive Web Design
6.	Data Visualization	Implement data visualization tools such as charts and graphs to display channel statistics and insights in an understandable format.	D3.js, Chart.js, or similar data visualization libraries

7.	Notification System	Enable users to subscribe to channels and receive notifications for changes in subscriber counts, video uploads, or other relevant updates.	WebSocket, Push Notifications
8.	WebSocket, Push Notifications	Monitor system performance and user behavior, gather insights for optimization, and track application usage.	Google Analytics, Elasticsearch, Kibana
9.	Security Measures	Ensure security by implementing measures against common web vulnerabilities (e.g., SQL injection, XSS), user data protection, and compliance with legal and ethical standards.	SSL/TLS, Security Headers, OWASP Top Ten Best Practices
10.	Continuous Integration/ Continuous Deployment (CI/CD) Pipeline	Automate the deployment process for updates and enhancements, ensuring smooth development, testing, and release cycles.	Jenkins, Travis CI, CircleCI

Table-2: Application Characteristics:

S.N o	Characteristics	Description	Technology
1.	Scalability	The ability of the application to handle a growing user base and data load. Scalability ensures the system can expand as needed without compromising performance.	Load balancers, horizontal scaling, cloud platforms (e.g., AWS, Azure, Google Cloud)
2.	Real-Time Updates	The application should provide real-time or near-real-time updates on subscriber counts, new video uploads, and other channel statistics, enhancing user engagement..	WebSocket, Server-Sent Events (SSE)

3.	Mobile Responsiveness	The application should be optimized for mobile devices, providing a seamless user experience on smartphones and tablets.	Responsive web design, mobile app development (e.g., React Native)
4.	Data Security	Ensuring the privacy and security of user data and compliance with relevant data protection regulations (e.g., GDPR). Protecting against common web vulnerabilities is crucial.	Encryption, security headers, access controls, penetration testing
5	Multilingual Support	To cater to a global audience, the application should support multiple languages and provide content in different languages.	Internationalization (i18n), localization (l10n), language libraries and frameworks

6.2 SPRINTING:

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority
Sprint-1	User Authentication	USN-1	As a user, I can register for an account	5	High
Sprint-1		USN-2	As a user, I can log in to my account	5	High
Sprint-1		USN-3	As a user, I can view my profile	10	Medium
+					
Sprint-2	Search and Filter Functionality	USN-4	As a user, I can search for YouTube channels	10	High
Sprint-2		USN-5	As a user, I can filter channels by category	10	Medium
Sprint-3	Channel Details Page	USN-6	As a user, I can view detailed channel information	20	High

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	23 Oct 2023	26 Oct 2023	20	26 Oct 2023
Sprint-2	20	6 Days	26 Oct 2023	30 Oct 2023	20	30 Oct 2023
Sprint-3	20	6 Days	01 Nov 2023	04 Nov 2023	20	04 Nov 2023

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

Jira Software Software:

Smartbridge data analytics - x +

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Q Status category Epic

	EP	OCT	NOV	DEC
Sprints				
SDA-1 User Authentication				
SDA-2 As a user, I can ... DONE				
SDA-3 As a user, I can ... DONE				
SDA-4 As a user, I can ... DONE				
SDA-6 Search and Filter Functionality				
SDA-9 As a user... IN PROGRESS				
SDA-10 As a us... IN PROGRESS				
SDA-7 Channel Details Page				
SDA-12 As a us... IN PROGRESS				
+ Create Epic				

Today Weeks Months Quarters 1 2

The screenshot shows a Jira Timeline board for the 'Smartbridge data analytics' project. The board displays tasks across three sprints: SDA-1 (User Authentication), SDA-6 (Search and Filter Functionality), and SDA-7 (Channel Details Page). The tasks are color-coded by status: purple for DONE, blue for IN PROGRESS, and grey for未开始 (Not Started). The timeline spans from October to December. The sidebar on the left provides navigation links for planning, development, and project management.

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Projects / Smartbridge data analytics Backlog

Epic Issues without epic

Sprint 2 26 Oct – 30 Oct (5 issues) The Functional requirement is Search and Filter Functionality

- SDA-2 As a user, I can register for an account (USER AUTHENTICATION) DONE 5 = X
- SDA-3 As a user, I can log in to my account (USER AUTHENTICATION) DONE 5 = M
- SDA-4 As a user, I can view my profile (SEARCH AND FILTER FUNCTIONALITY) DONE 10 = S
- SDA-9 As a user, I can search for YouTube channels (SEARCH AND FILTER FUNCTIONALITY) IN PROGRESS 10 = T
- SDA-10 As a user, I can filter channels by category (SEARCH AND FILTER FUNCTIONALITY) IN PROGRESS 10 = X

+ Create issue

Sprint 3 1 Nov – 4 Nov (1 issue)

Backlog (0 issues) Your backlog is empty.

+ Create issue

Import work Insights

0 20 20 Complete sprint ...

0 20 0 Complete sprint ...

0 0 0 Create sprint

This screenshot shows the Jira Software Backlog page for the 'Smartbridge data analytics' project. The left sidebar includes links for Planning (Timeline, Backlog, Board), Development (Code), and Project pages. The main area displays the 'Backlog' section with an 'Epic' sidebar containing 'Issues without epic'. It lists several epics under 'Sprint 2' and one under 'Sprint 3'. Each epic contains multiple user stories with status indicators like 'DONE', 'IN PROGRESS', and 'PENDING'. A message at the bottom of the backlog states 'Your backlog is empty.'

Smartbridge data analytics - / x +

jayarammova9.atlassian.net/jira/software/projects/SDA/boards/1/backlog?epics=visible

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Projects / Smartbridge data analytics Backlog

Epic Issues without epic User Authentication Search and Filter Functionality Channel Details Page

Sprint 3 1 Nov – 4 Nov (1 issue) Functional Requirement is Channel Details Page 0 20 0 Complete sprint ...

SDA-12 As a user, I can view detailed channel information CHANNEL D... IN PROGRES... 20 ...

+ Create issue

Backlog (2 issues) 0 20 0 Create sprint

+ Create epic

The screenshot shows the Jira Software interface for the 'Smartbridge data analytics' project. On the left, a sidebar lists project management sections like Planning, Development, and Settings. The main area is titled 'Backlog' and displays a hierarchical list of epics. One epic, 'User Authentication', is expanded, showing its sub-tasks. A specific task, 'SDA-12 As a user, I can view detailed channel information', is highlighted with a green progress bar and labeled 'IN PROGRES...'. Other epics shown include 'Search and Filter Functionality' and 'Channel Details Page'. At the bottom of the backlog list, there are buttons for '+ Create issue' and '+ Create epic'. The top navigation bar includes links for 'Create', 'Search', and various system settings.

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[jayarammova9.atlassian.net/jira/software/projects/SDA/boards/1/backlog?epics=visible&selectedissue=SDA-1](#)

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Backlog

Epic Issues without epic Backlog (3 issues)

User Authentication

- SDA-9 As a user, I can search for YouT...
- SDA-10 As a user, I can filter channels...
- SDA-12 As a user, I can view detailed ...

Start date: None Due date: None

+ Create issue + Create epic

User Authentication

To Do Actions Description Add a description...

Child issues Order by 100% Done

- SDA-2 As a user, I can re...
- SDA-3 As a user, I can lo...
- SDA-4 As a user, I can v...

Link goals

Add a comment... Pro tip: press to comment

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Timeline

Epic Status category Sprints

SDA-1 User Authentication

- SDA-2 As a user, I can ...
- SDA-3 As a user, I can ...
- SDA-4 As a user, I can ...

SDA-6 Search and Filter Functi...

- SDA-9 As a user, I can ...
- SDA-10 As a user, I can...

SDA-7 Channel Details Page

- SDA-12 As a user, I can...

+ Create Epic

Channel Details Page

Done Actions Description Add a description...

Child issues Order by

- SDA-12 As a user, I ...

RECOMMENDED FOR EPICS Project plan TEMPLATE Use this template to map out project logistics, like milestones and scope, to ensure a project runs smoothly. A

Add a comment... Pro tip: press to comment

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Timeline

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Status category Epic Clear filters

MOVVA JAYARAM 21BCE8265

Sprints

	EP	OCT	NOV	DEC
SDA-1 User Authentication	█ SDA-2 As a user, I can ... DONE ✓	█	█	
SDA-6 Search and Filter Functi...	█ SDA-10 As a user, I can... DONE ✓	█	█	
+ Create Epic				

Today Weeks Months Quarters

The screenshot shows a Jira Software Timeline board for the project "Smartbridge data anal...". The board displays a timeline from EP through December. Two sprints are visible: "SDA-1 User Authentication" and "SDA-6 Search and Filter Functi...". Under "SDA-1", tasks SDA-2 and SDA-4 are marked as "DONE" with green status indicators. Under "SDA-6", task SDA-10 is also marked as "DONE". The board includes a sidebar with project navigation and a message about being in a team-managed project.

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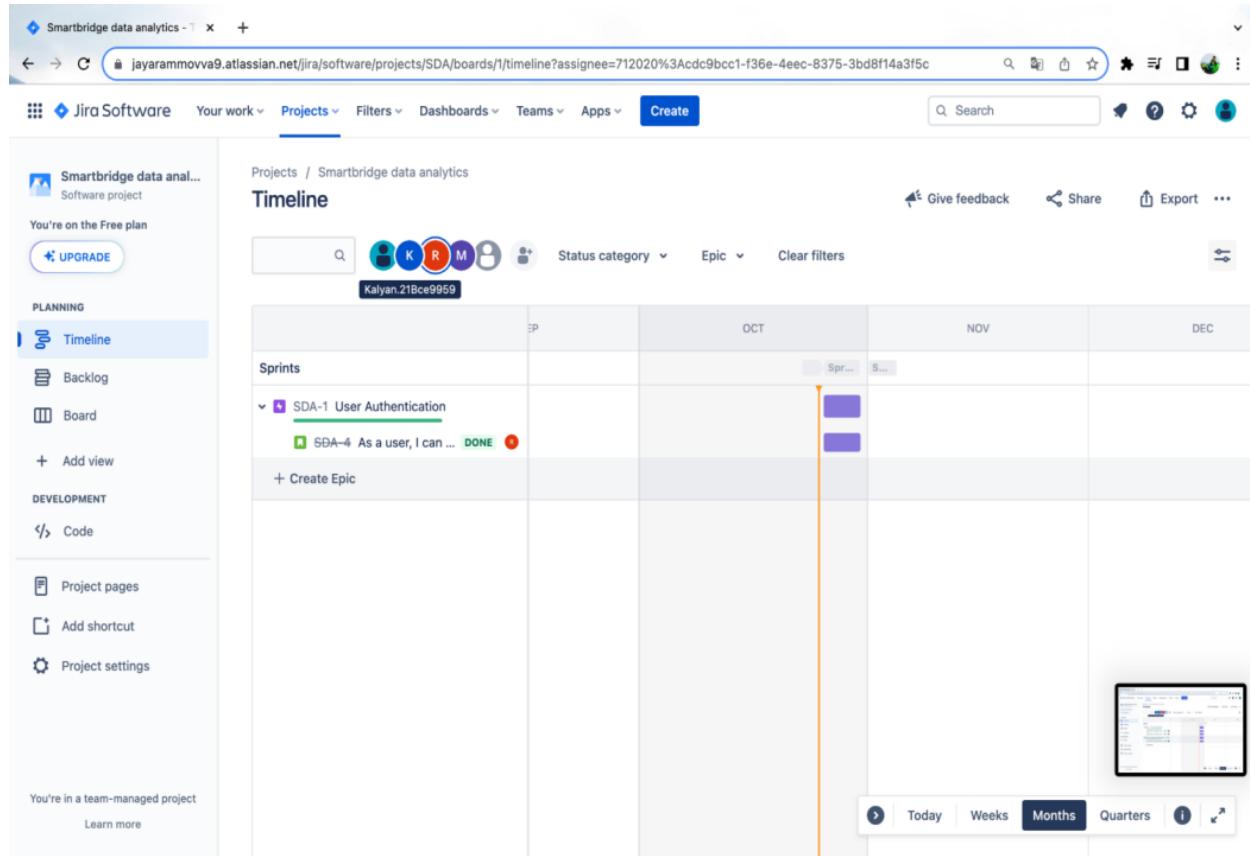
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Timeline

Status category Epic Clear filters Kalyan.21Bce9959

	SEP	OCT	NOV	DEC
Sprints				
SDA-1 User Authentication				
SDA-4 As a user, I can ...	DONE			
+ Create Epic				

Today Weeks Months Quarters



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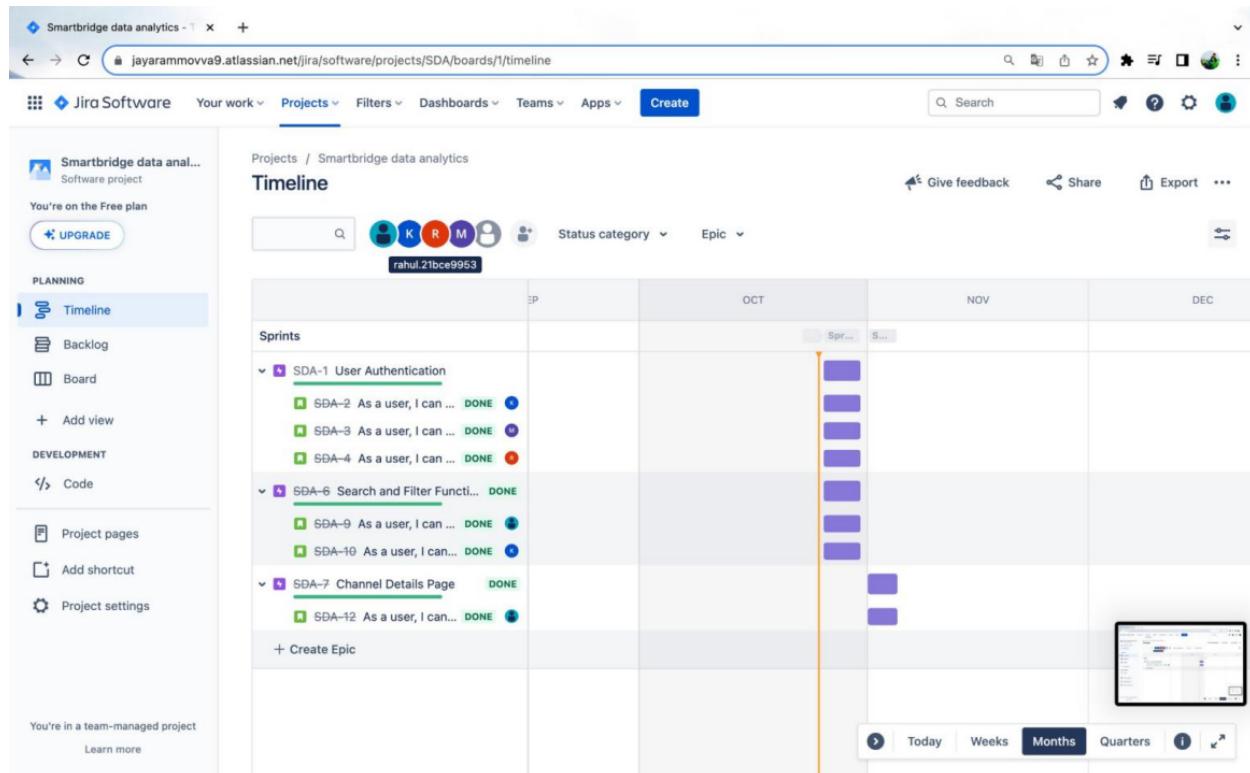
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Timeline

Status category Epic Clear filters rahul.21bce9953

	SEP	OCT	NOV	DEC
Sprints				
SDA-1 User Authentication				
SDA-2 As a user, I can ...	DONE			
SDA-3 As a user, I can ...	DONE			
SDA-4 As a user, I can ...	DONE			
SDA-6 Search and Filter Functi...	DONE			
SDA-9 As a user, I can ...	DONE			
SDA-10 As a user, I can...	DONE			
SDA-7 Channel Details Page	DONE			
SDA-12 As a user, I can...	DONE			
+ Create Epic				

Today Weeks Months Quarters



7)PERFOMANCE TESTING:

7.1 Performance Metrics

MODEL PERFORMANCE TESTING:(Tableau)

S.NO	Parameter	Screenshot/Values
1	Dashboard Design	No of Visualisations/Graphs -- 9 Visualisations
2	Data Responsiveness	
3	Amount Data to Rendered(DB2 Metrics)	No Database is used,Directly connected through Excelm file
4	Utilization of Data Filters	Yes-2 Filters used
5	Effective User Story	No of Scene Added-4 Scenes
6	Descriptive Reports	No of Visualisations/Graphs-No Report is created

8)RESULTS:

8.1 Output Screenshots

SPRINT-1

DATA EXTRACTION:

WPS Office List of most-subscribed YouTube channels

Home Insert Page Layout Formulas Data Review View Special features

Unsynchronized Share

Paste Cut Copy Format Painter Calibri 11 A A Merge and Center General Conditional Text

Format as Table AutoSum AutoFilter Sort Fill Format Row Col

A1 G fx

Rank	Name	Link	Brand channel	Subscribers	Primary language	Category	Country
0	T-Series	Link	Yes	238,911,778	Hindi	Music	India
1	Cocomelon	Link	Yes	155,000,000	English	Education	United States
2	Sony Entertainment Television	Link	Yes	153,000,000	Hindi	Entertainment	India
3	MrBeast	Link	No	137,000,000	English	Entertainment	United States
4	PewDiePie	Link	No	111,000,000	English	Games	Sweden
5	Kids Diana Show	Link	Yes	109,000,000	English	Entertainment	Ukraine
6	Like Nasty	Link	No	105,000,000	English	Entertainment	United States
7	Vlad and Niki	Link	No	94,900,000	English	Entertainment	Russia
8	WWE	Link	Yes	93,800,000	English	Sports	United States
9	Zee Music	Link	Yes	93,400,000	Hindi	Music	India
10	Blackpink	Link	Yes	84,800,000	Korean	Music	South Korea
11	Goldmines	Link	Yes	83,300,000	Hindi	Film	India
12	5-Minute C	Link	Yes	79,200,000	English	How-to	Cyprus
13	Sony SAB TV	Link	Yes	78,200,000	Hindi	Entertainment	India
14	BangtanTV	Link	No	73,900,000	Korean	Music	South Korea
15	Justin Bieber	Link	No	71,100,000	English	Music	Canada
16	Hybe Lab	Link	Yes	69,500,000	Korean	Music	South Korea
17	Canal Kon	Link	Yes	66,400,000	Portuguese	Music	Brazil
18	Zee TV	Link	Yes	66,300,000	Hindi	Entertainment	India
19	Pinkfong	Link	Yes	66,100,000	English	Education	South Korea
20	Shemaroo	Link	Yes	64,200,000	Hindi	Music	India
21	ChuChu TV	Link	Yes	63,200,000	Hindi	Education	India
22	Colors TV	Link	Yes	60,600,000	Hindi	Entertainment	India
23	Dude Perfect	Link	No	59,000,000	English	Sports	United States
24	Movieflicks	Link	Yes	58,800,000	English	Film	United States
25	T-Series	Link	Yes	58,400,000	Hindi	Music	India
26	Tip Indus	Link	Yes	57,300,000	Hindi	Entertainment	India
27	Wave Musi	Link	Yes	56,600,000	Bhojpuri	Music	India
28	Marshmello	Link	No	56,200,000	English	Music	United States
29	Sony Music	Link	Yes	56,100,000	Hindi	Music	India
30	El Reino	Link	Yes	56,000,000	Spanish	Music	Argentina
31	Aaj Tak	Link	Yes	55,900,000	Hindi	News	India
32	Eminem	Link	No	55,600,000	English	Music	United States
33	LooLoo KiKi	Link	Yes	53,100,000	English	Music	Romania
34	Ed Sheeran	Link	No	53,000,000	English	Music	United Kingdom
35	Yash Raj	Link	Yes	52,700,000	Hindi	Music	India
36	Ariana Grande	Link	No	52,400,000	English	Music	United States
37	Brand channel	Link	Yes	52,300,000	English	Music	United States

List of most-subscribed YouTube (youtube)

Connections youtube Microsoft Excel

Sheets List of most-subscribed YouTube

Add New Union New Table Extension

Need more data? Drag tables here to relate them. [Learn more](#)

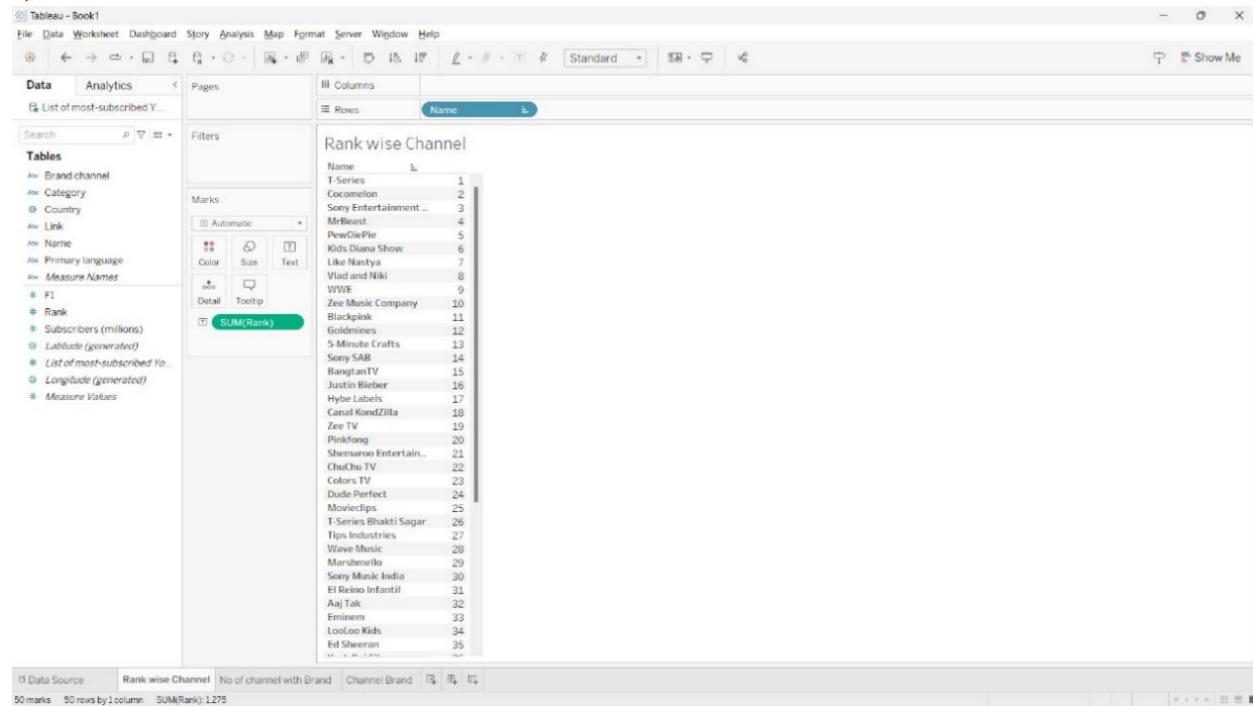
List of most-subscribed YouTube (youtube) 9 fields 50 rows

Name	Link	Rank	Name	Link
T-Series	Link	0	T-Series	Link
Cocomelon	Link	1	Cocomelon	Link
Sony Entertainment Television	Link	2	Sony Entertainment Television	Link
MrBeast	Link	3	MrBeast	Link
PewDiePie	Link	4	PewDiePie	Link
Kids Diana Show	Link	5	Kids Diana Show	Link
Like Nasty	Link	6	Like Nasty	Link
Vlad and Niki	Link	7	Vlad and Niki	Link

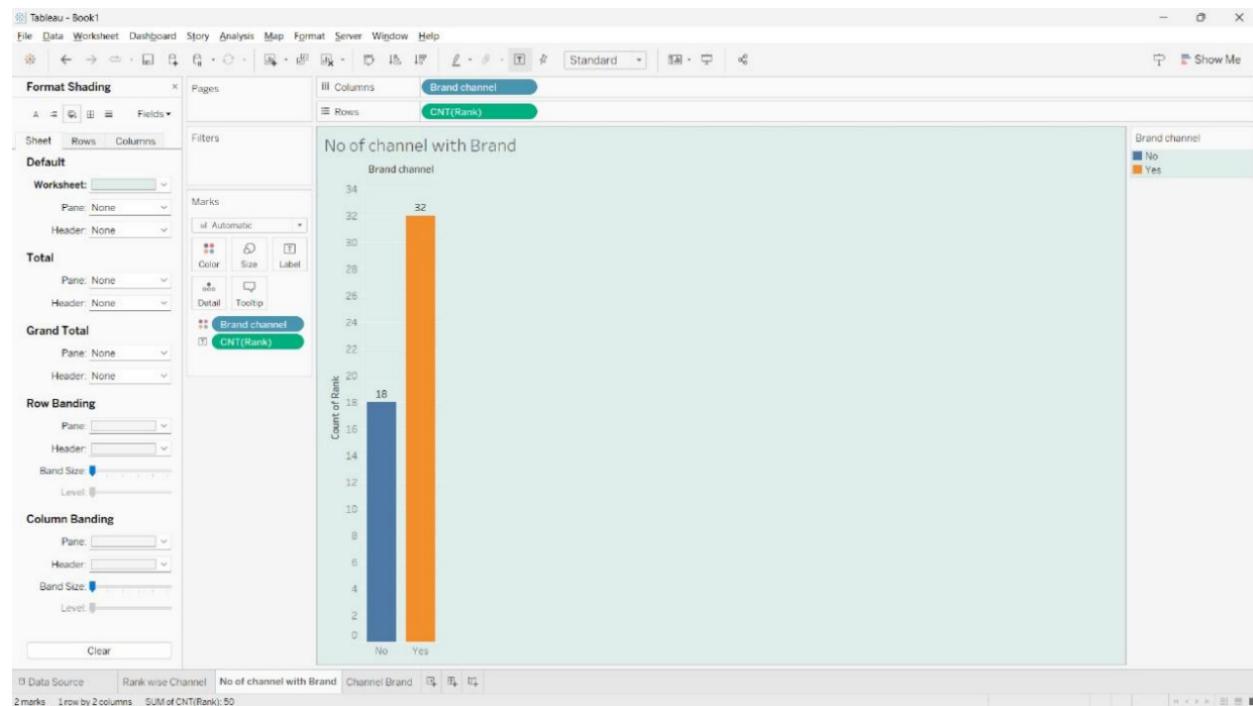
Data Source Sheet 1

VISUALISATION:

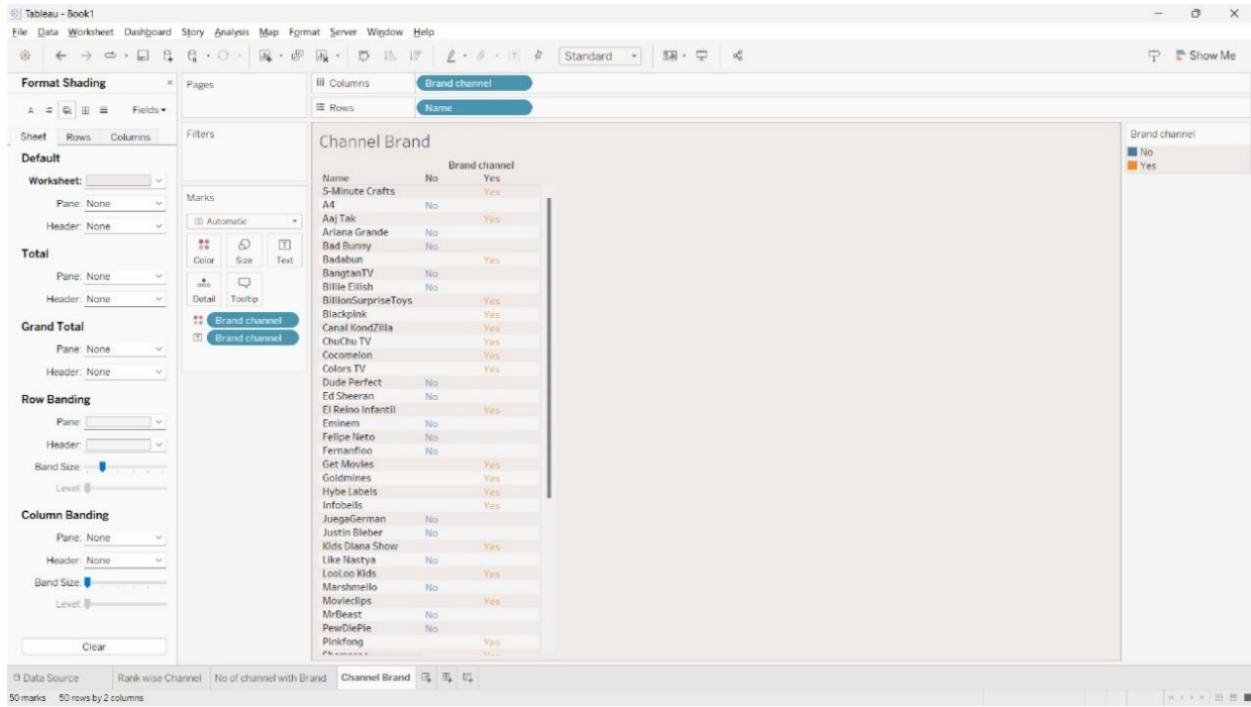
1) Rank wise channel:



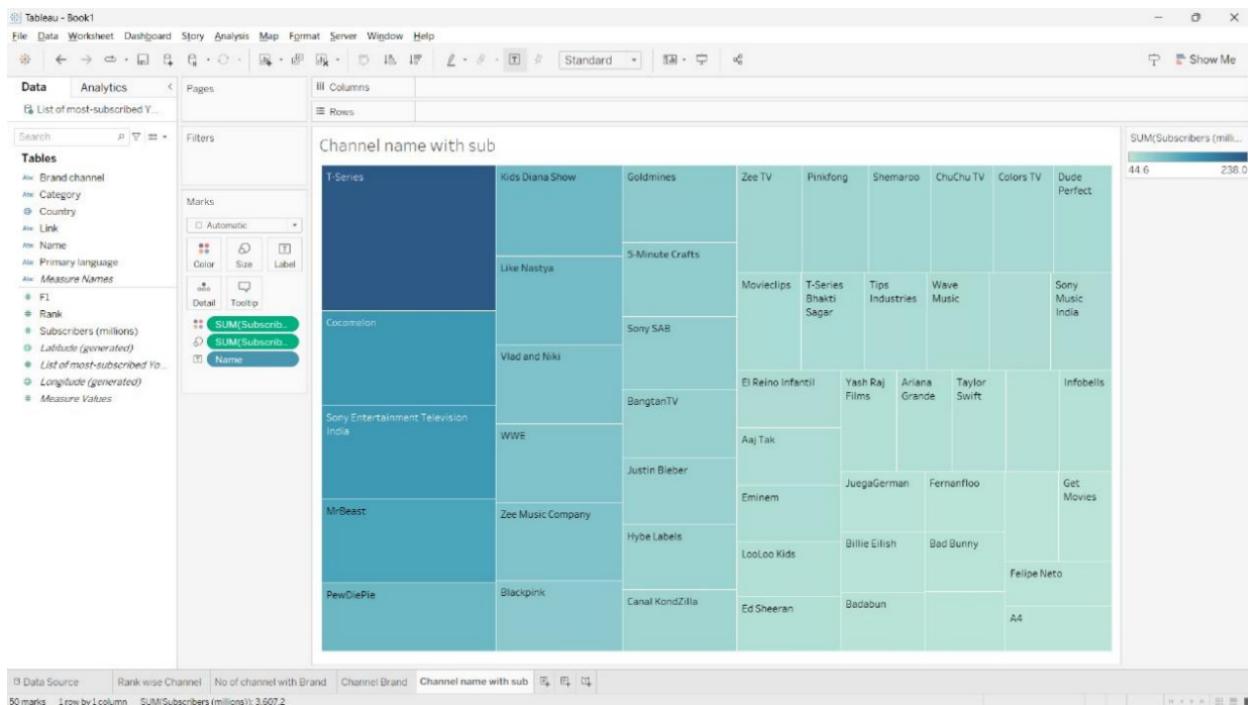
2) No of channel with Brand:



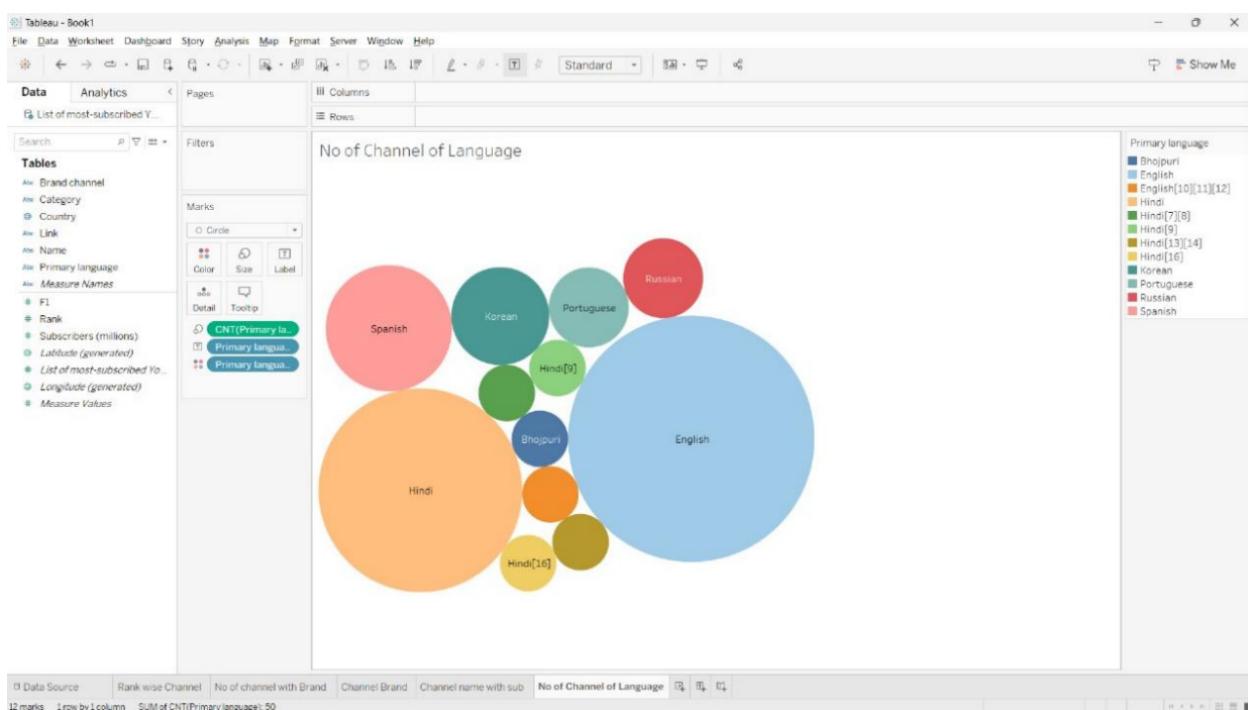
3)Channel Brand:



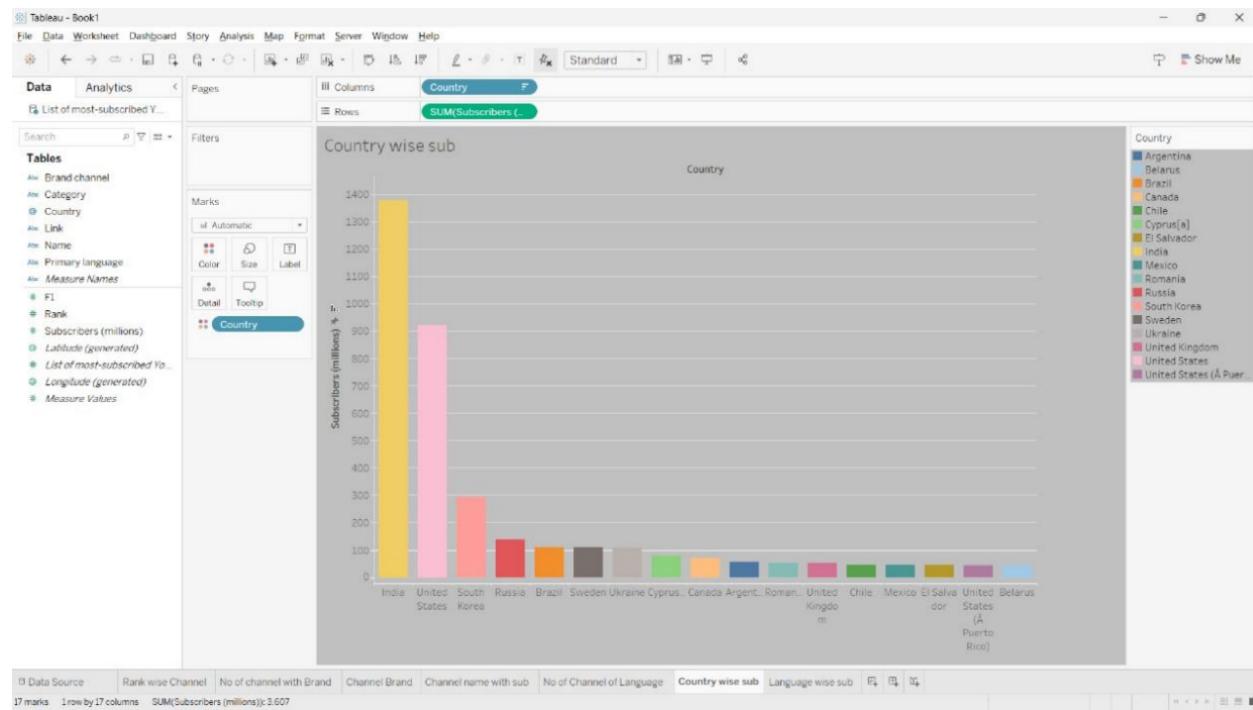
4)Channel name with Sub:



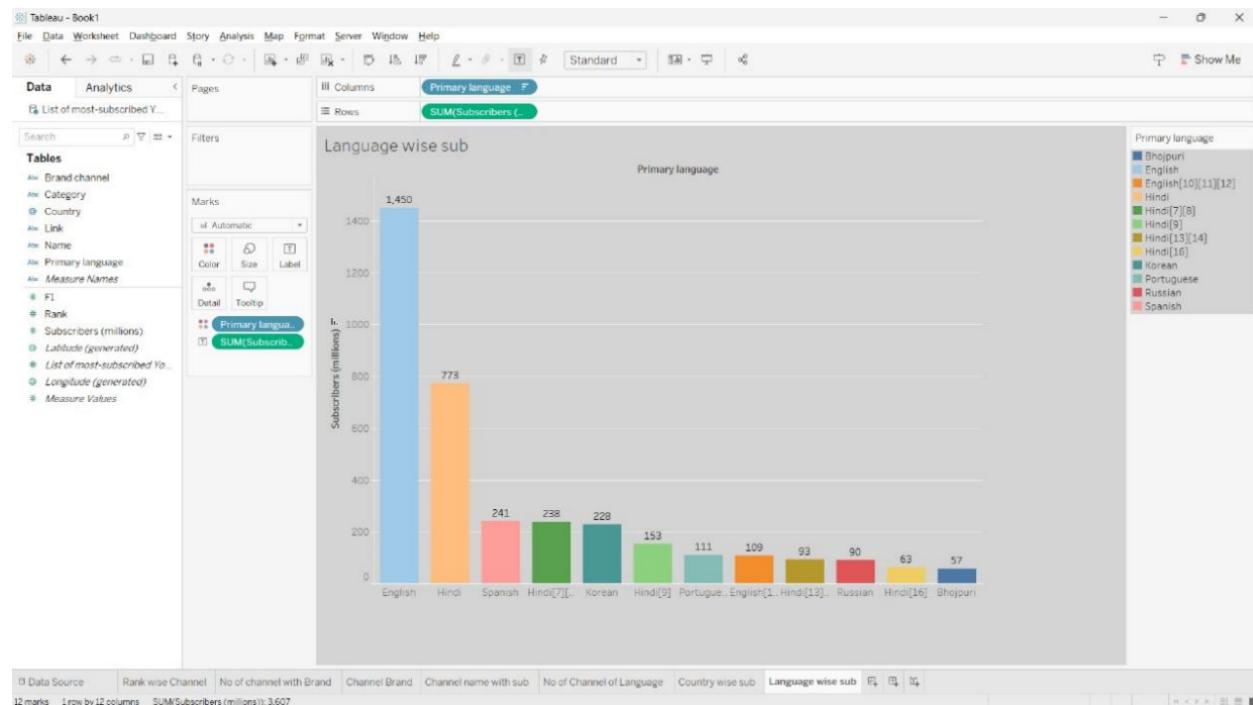
5) No of Channel of Language:



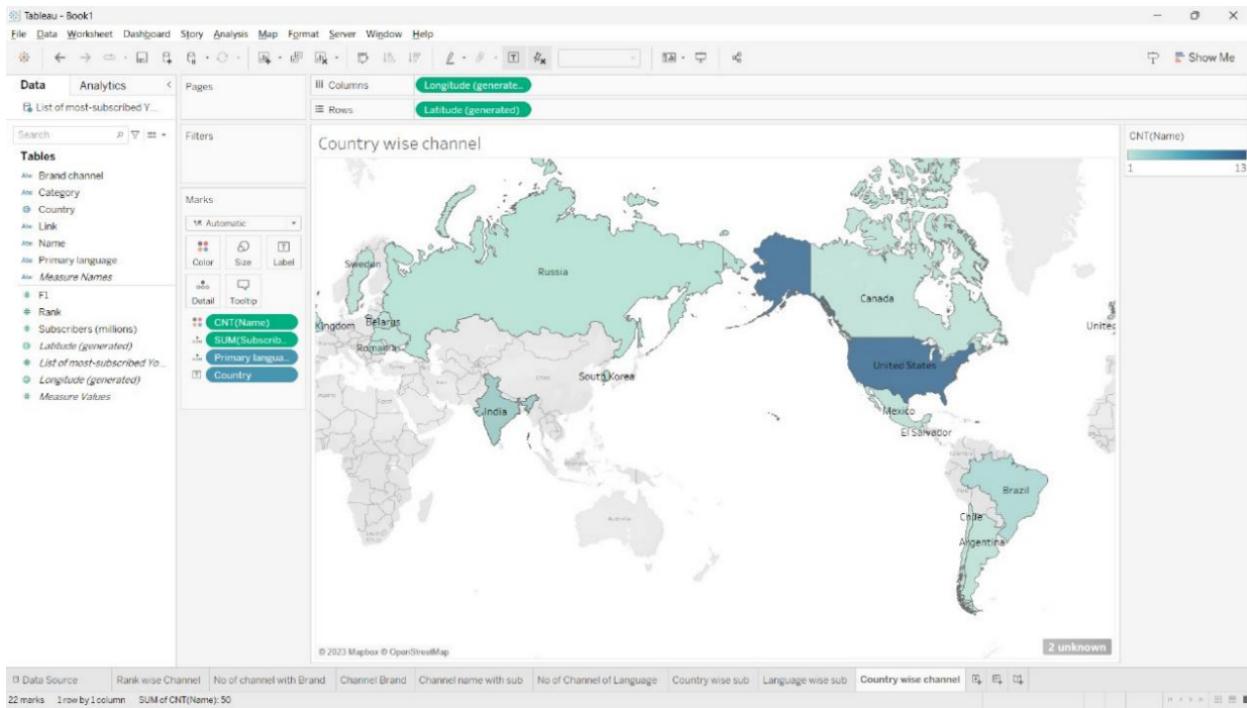
6)Country wise sub:



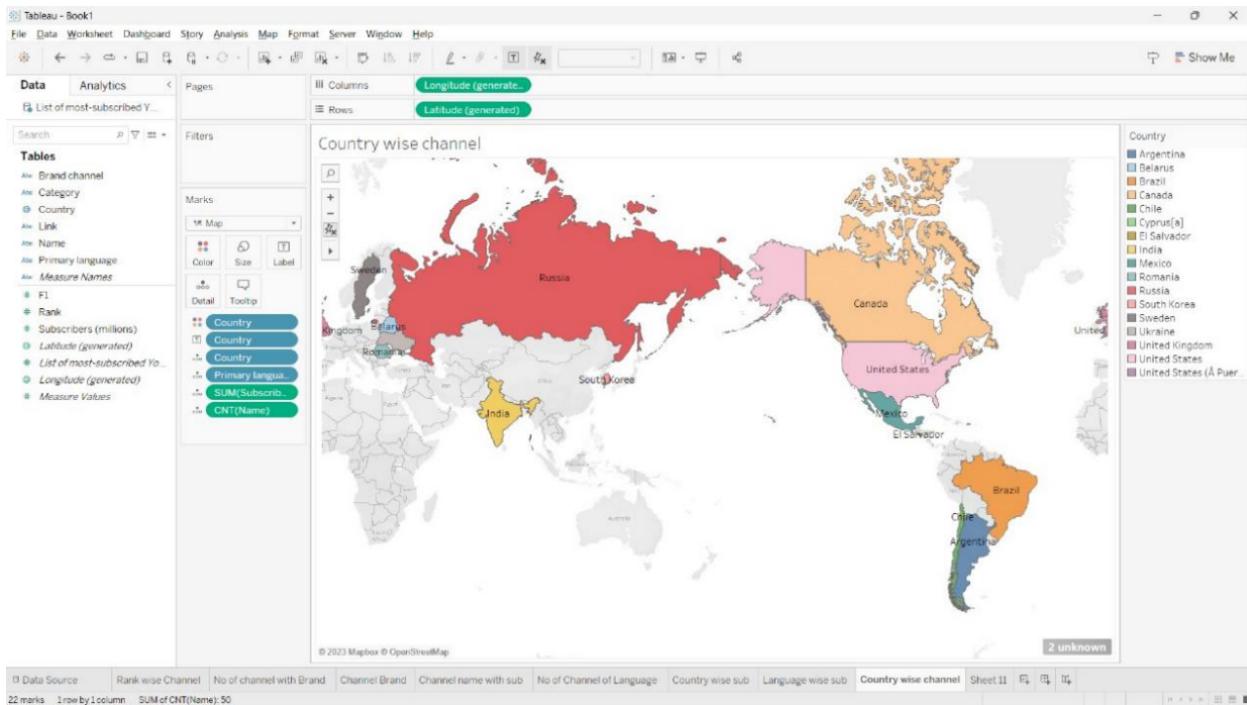
7)Language wise sub:



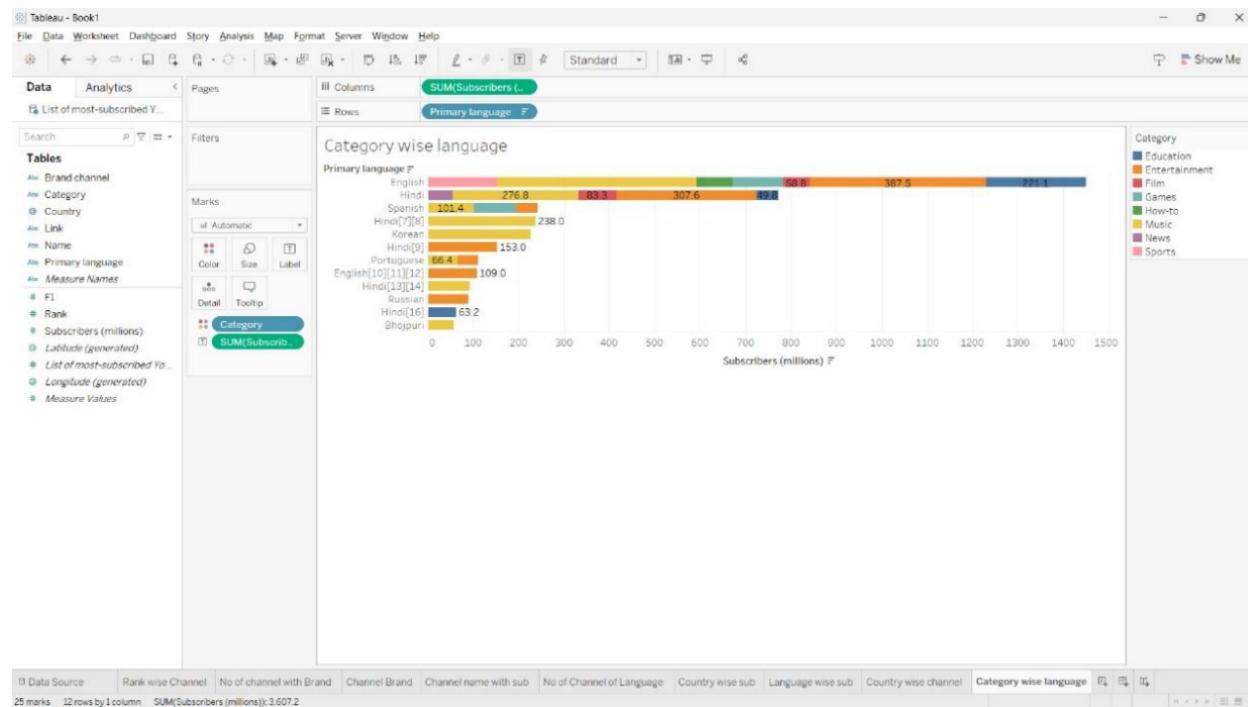
8)Country wise Channel:



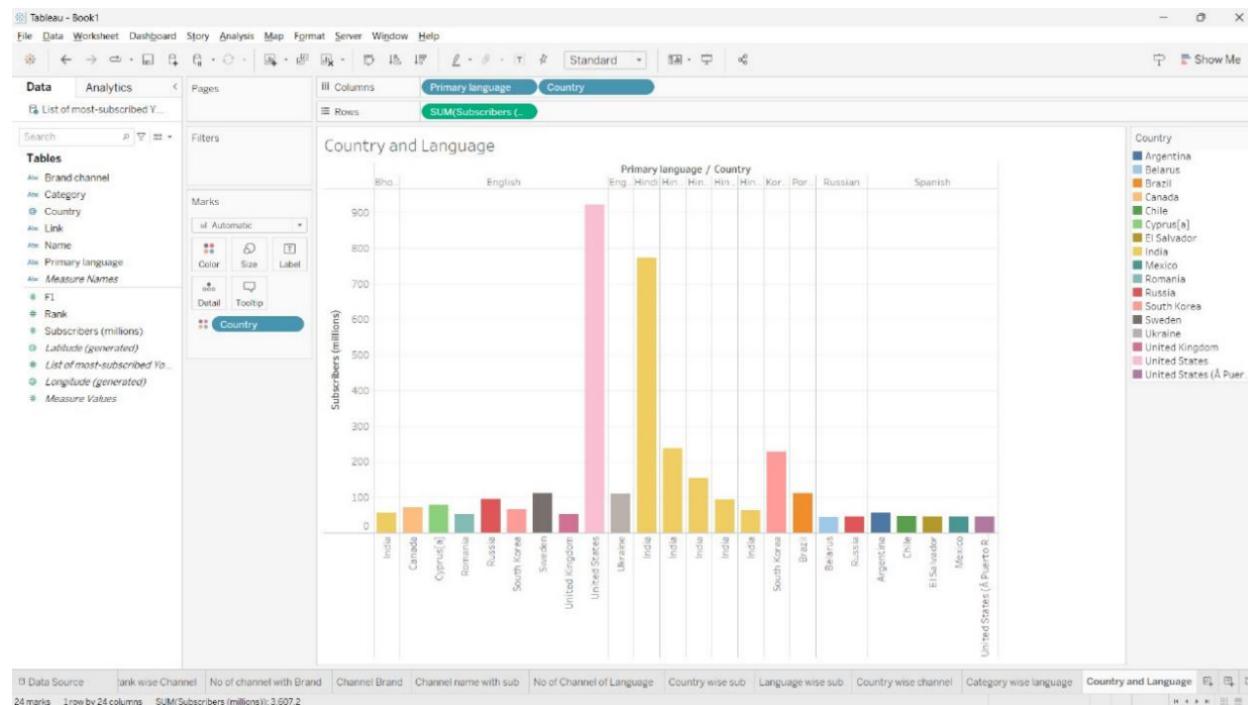
9)Country wise Channel:



10)Category wise Language:



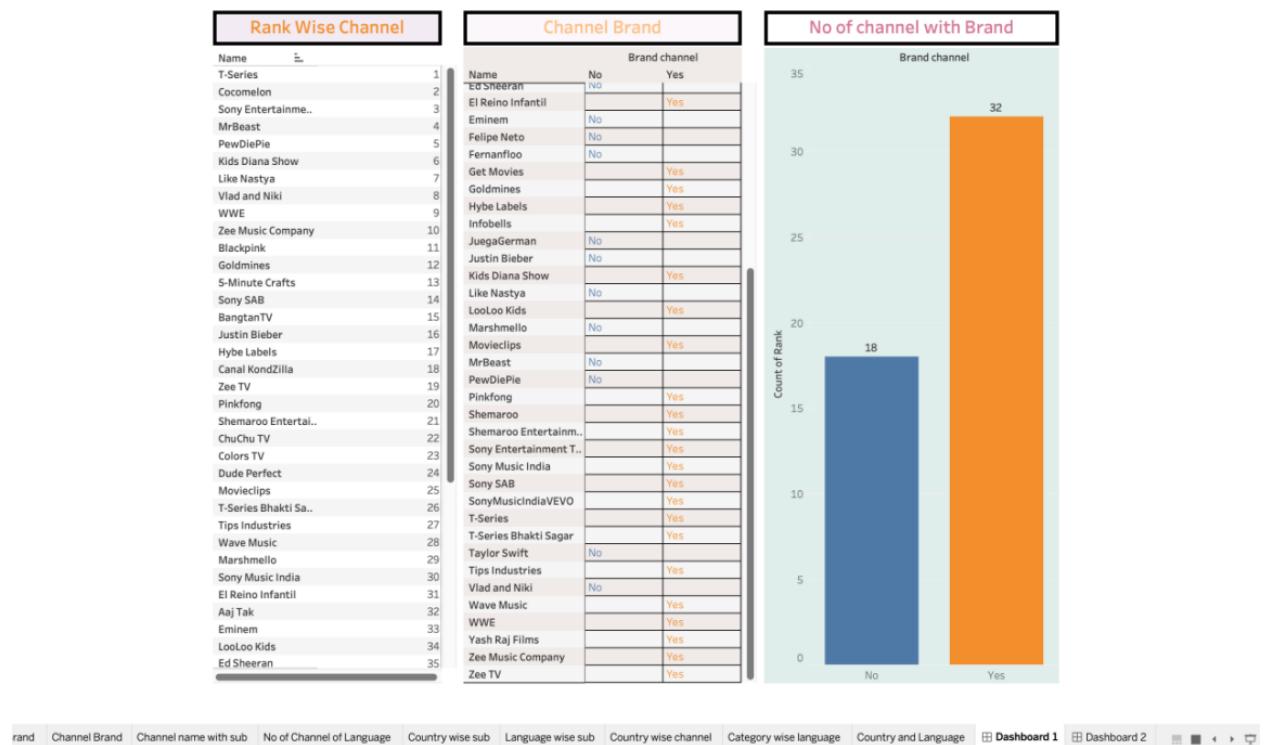
11)Country and Language:



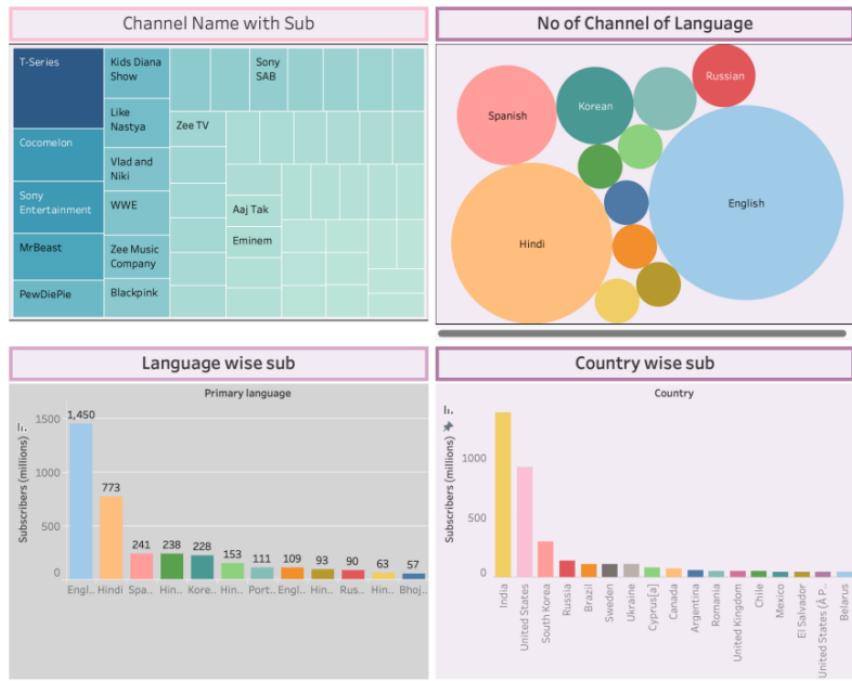
SPRINT-2

DASHBOARD:

1)

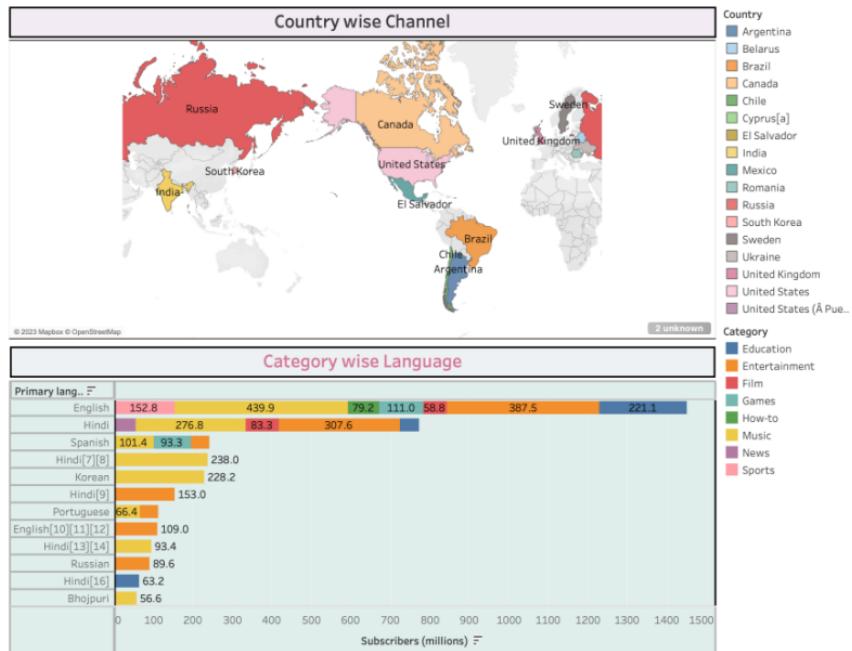


2)



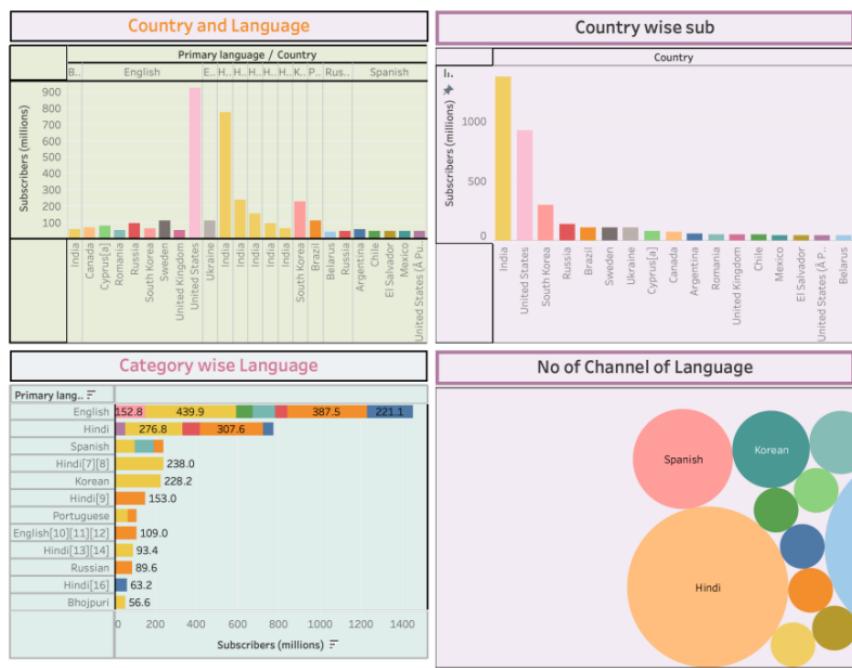
and Channel name with sub No of Channel of Language Country wise sub Language wise sub Country wise channel Category wise language Country and Language Dashboard 1 Dashboard 2 Dashboard 3

3)



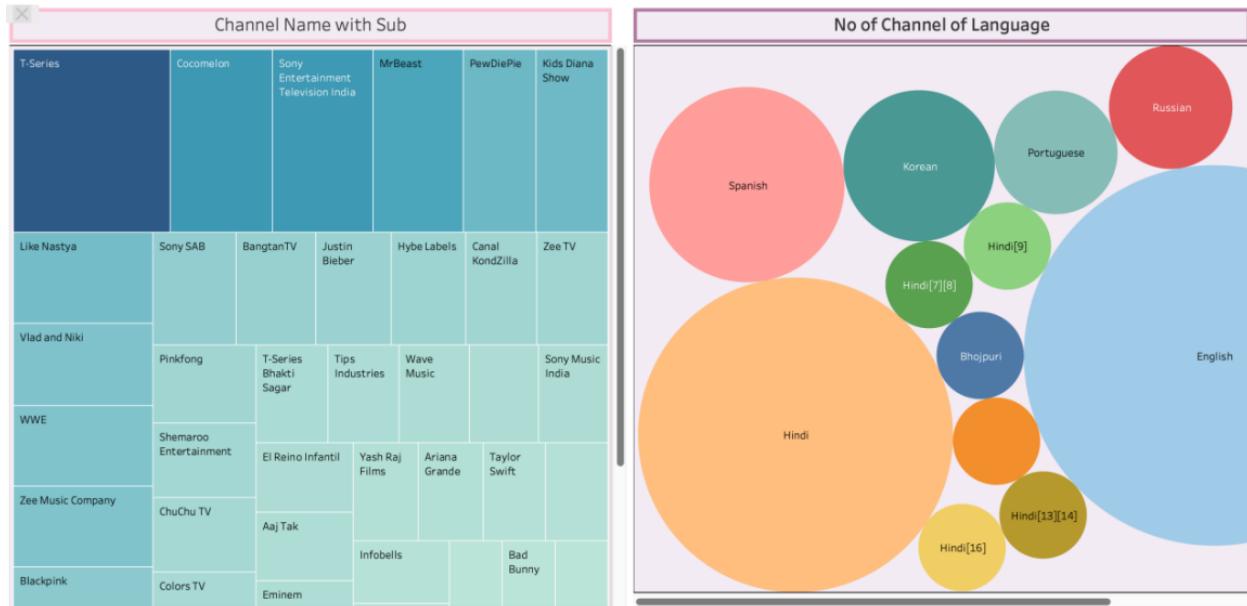
if Channel of Language Country wise sub Language wise sub Country wise channel Category wise language Country and Language Dashboard 1 Dashboard 2 **Dashboard 3** Dashboard 4 Dashboard 5

4)



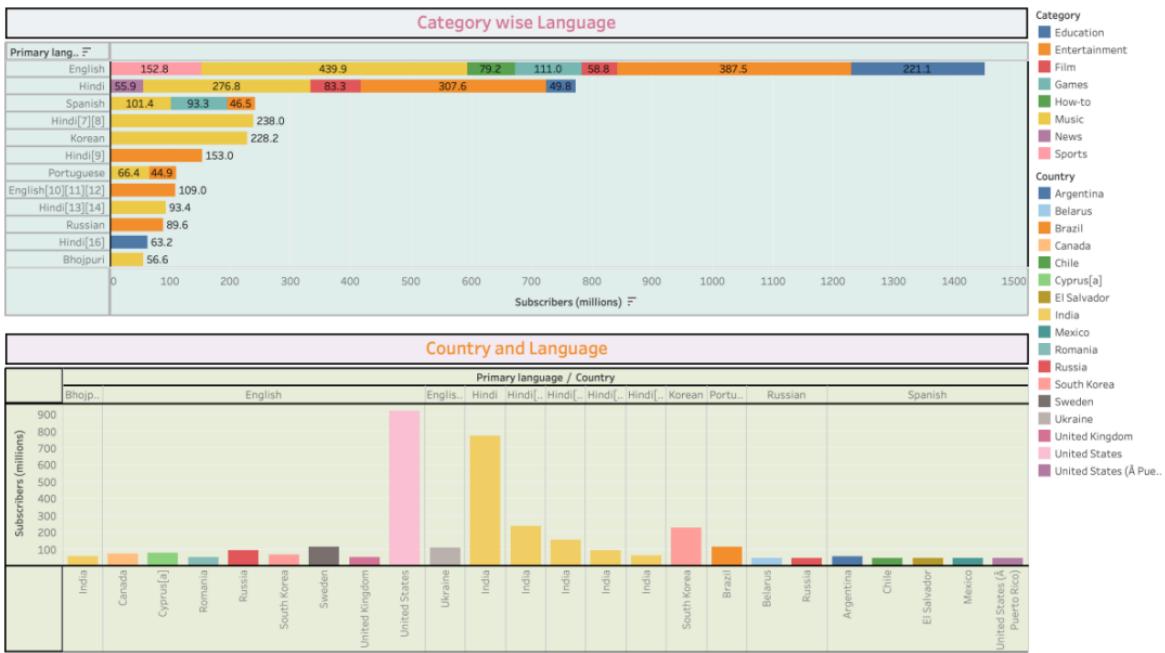
of Channel of Language Country wise sub Language wise sub Country wise channel Category wise language Country and Language Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Dashboard 5

5)

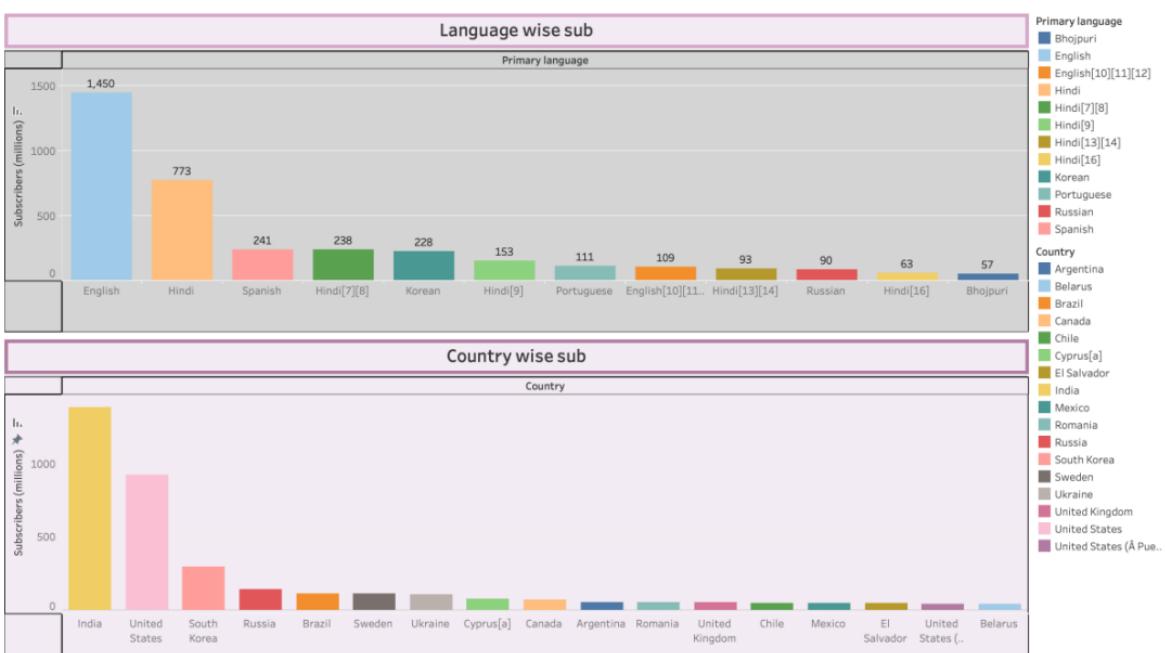


Inet Category wise language Country and Language Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Dashboard 5 Dashboard 6 Dashboard 7 Dashboard 8 Story 1 Sheet 12 Sheet 11 Sheet 13

6)



7)



intel Category wise language Country and Language Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Dashboard 5 Dashboard 6 Dashboard 7 Dashboard 8 Story 1 Sheet 12 Sheet 11 Sheet 13

SPRINT-3

STORY:

Tableau - Book2

File Data Worksheet Dashboard Story Analysis Format Server Window Help

Story Layout < Story 1 >

New story point

Blank Duplicate

Language wise sub
Country wise channel
Category wise language
Country and Language
Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Dashboard 5
Sheet 12
Sheet 11
Dashboard 6
Dashboard 7
Dashboard 8
Sheet 13

A Drag to add text

Show title

Size

Custom size (1516 x 964)

Channel details List of channel's with number of subscribers and Languages

Category wise Language and Country wise Language

Language and Country wise subscribers

Country wise primary language, number of subscribers and total number of subscribers

Rank Wise Channel

Name	Rank
T-Series	1
Cocomelon	2
Sony Entertain...	3
MrBeast	4
pewDiePie	5
Kids Diana Sho...	6
Like Nasty	7
Vlad and Nikl	8
WWE	9
Zee Music Com...	10
Blackpink	11
Goldmines	12
5-Minute Crafts	13
Sony SAB	14
BangtanTV	15
Justin Bieber	16
Hybe Labels	17
Canal KondZilla	18
Zee TV	19
Pinkfong	20
Shemaroo Ent...	21
ChuChu TV	22
Colors TV	23
Dude Perfect	24
Ed Sheeran	25
El Reino Infantil	26
Eminem	27
Felipe Neto	28
Fernandofo	29
Get Movies	30
Goldmimes	31
Hybe Labels	32
Immobili	33
Jessie Jerman	34
Justin Bieber	35
Kids Diana Show	36

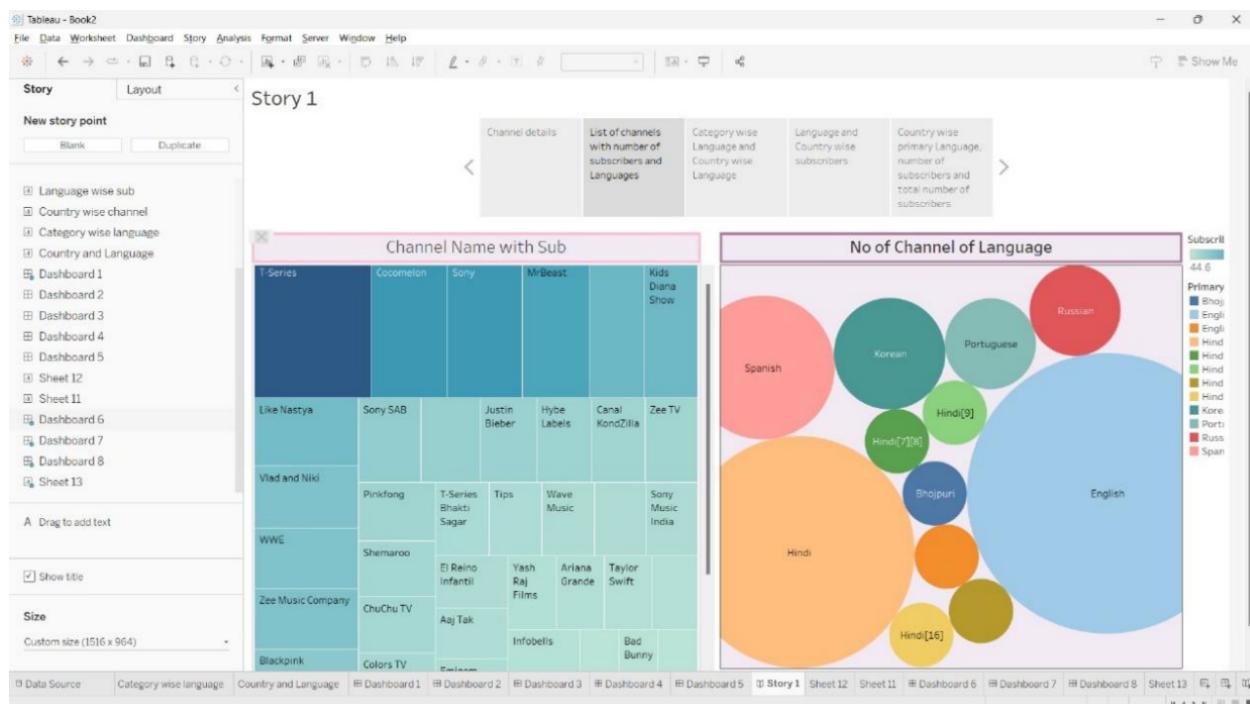
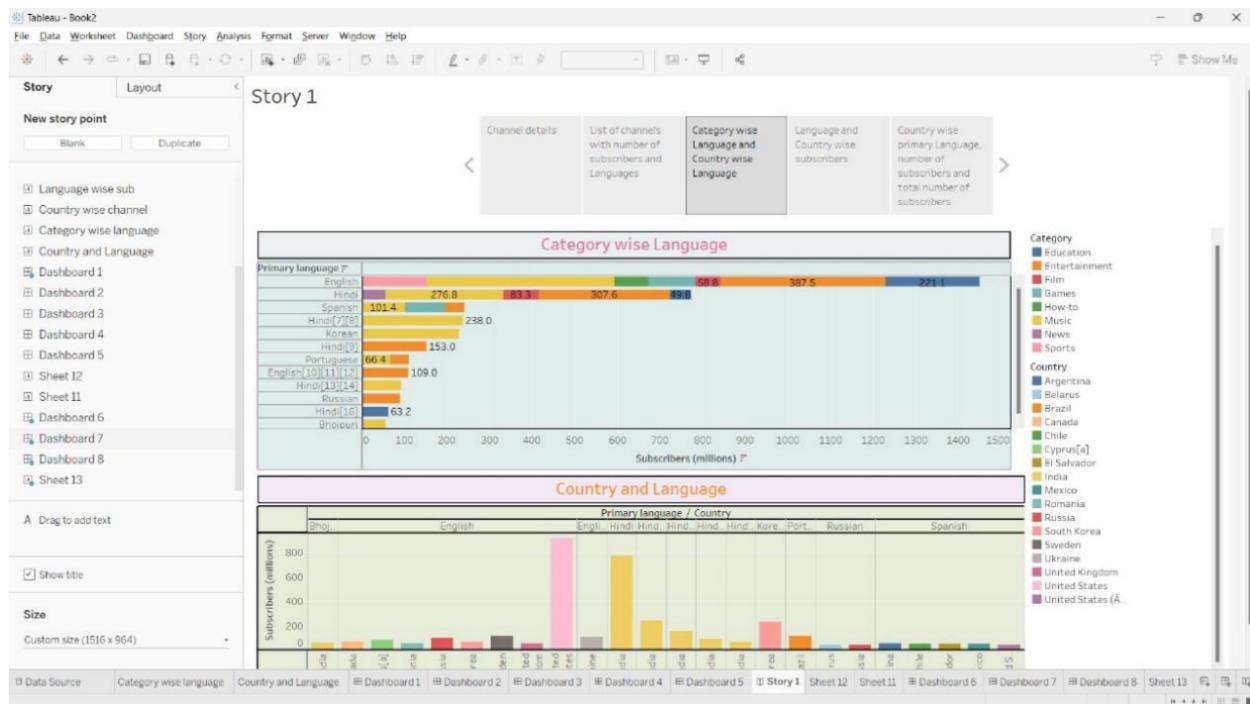
Channel Brand

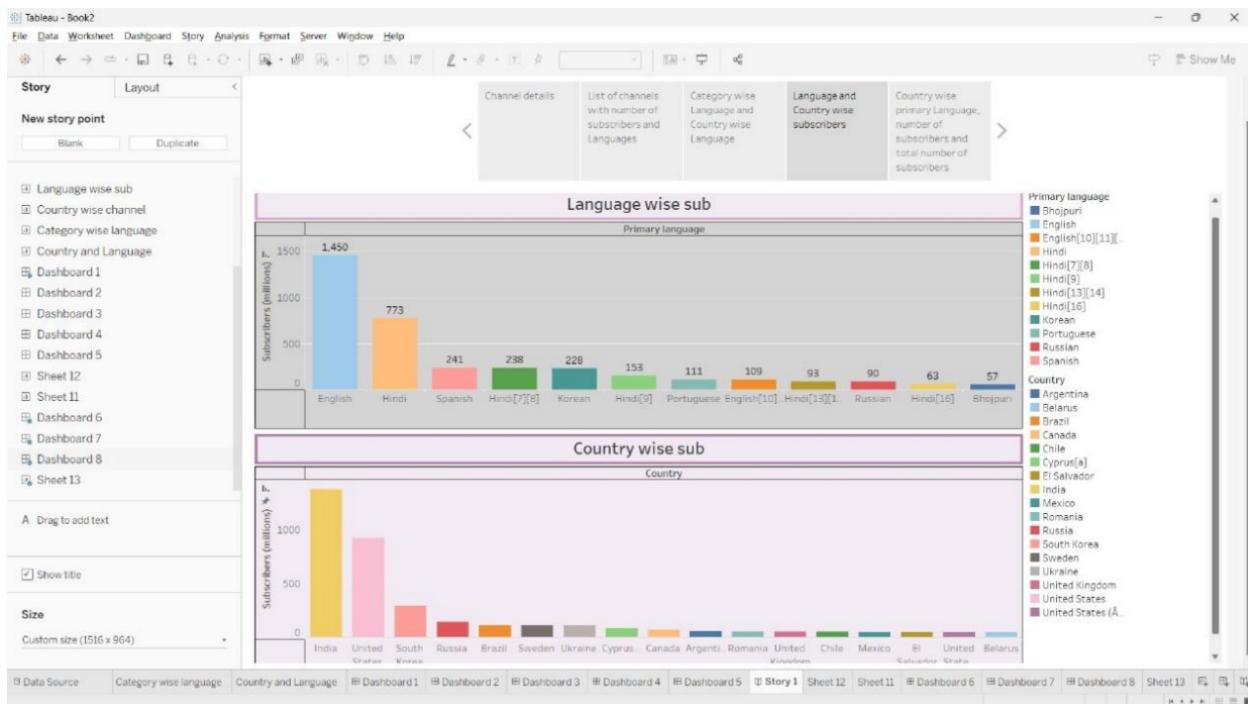
Name	Brand channel
5-Minute Crafts	No
A4	Yes
Arijit Tak	No
Ariana Grande	No
Bad Bunny	No
Badabun	Yes
BangtanTV	No
Billie Eilish	No
BillionSurpriseTo...	Yes
Blackpink	Yes
Canal KondZilla	Yes
ChuChu TV	Yes
Cocomelon	Yes
Colors TV	Yes
Dude Perfect	No
Ed Sheeran	No
El Reino Infantil	Yes
Eminem	No
Felipe Neto	No
Fernandofo	No
Get Movies	Yes
Goldmimes	Yes
Hybe Labels	Yes
Immobili	Yes
Jessie Jerman	No
Justin Bieber	No
Kids Diana Show	Yes

No of channel with Brand

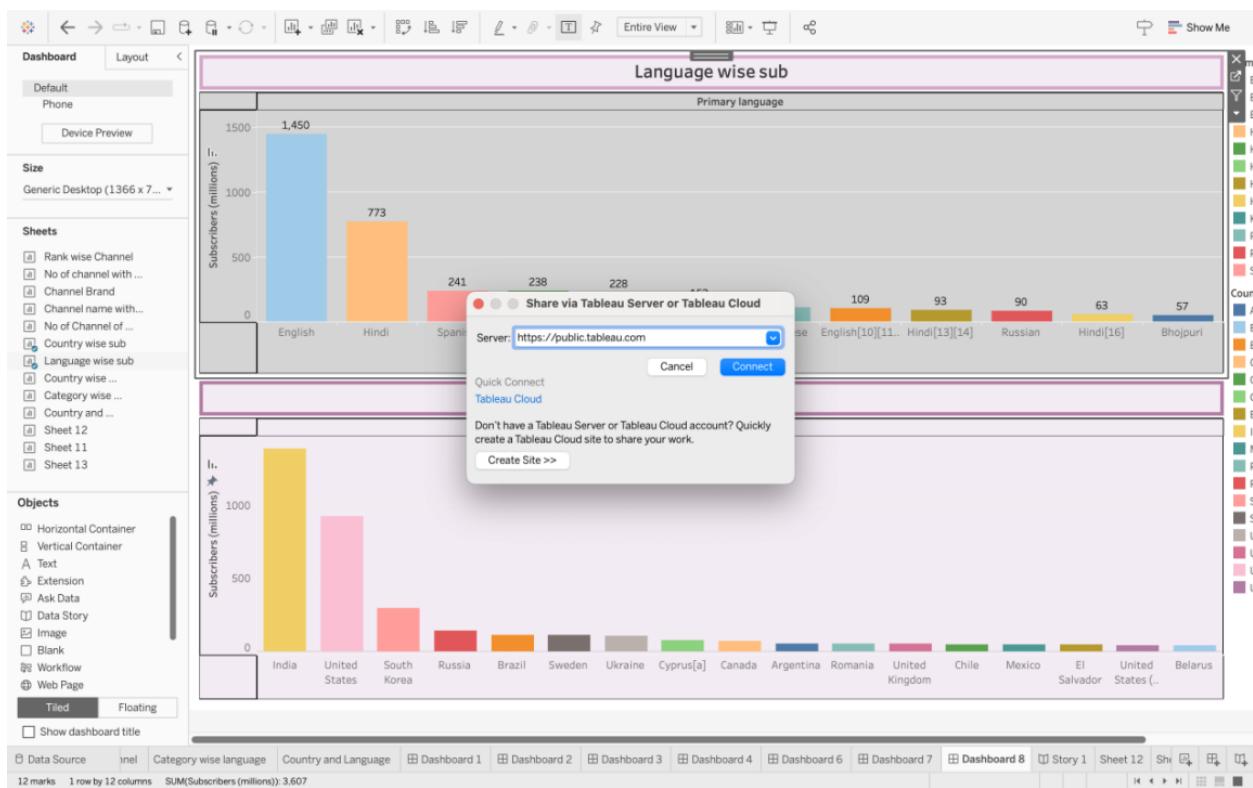
Brand channel	Count of Rank
No	18
Yes	32

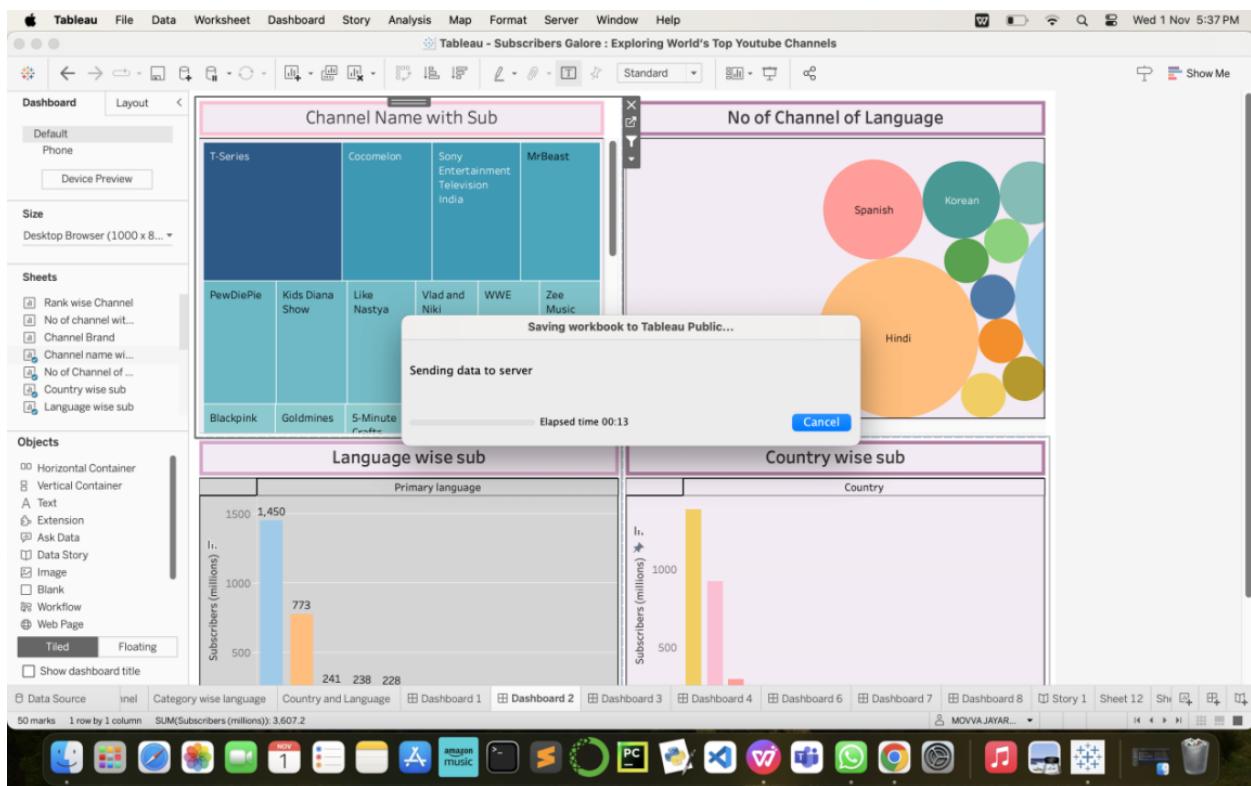
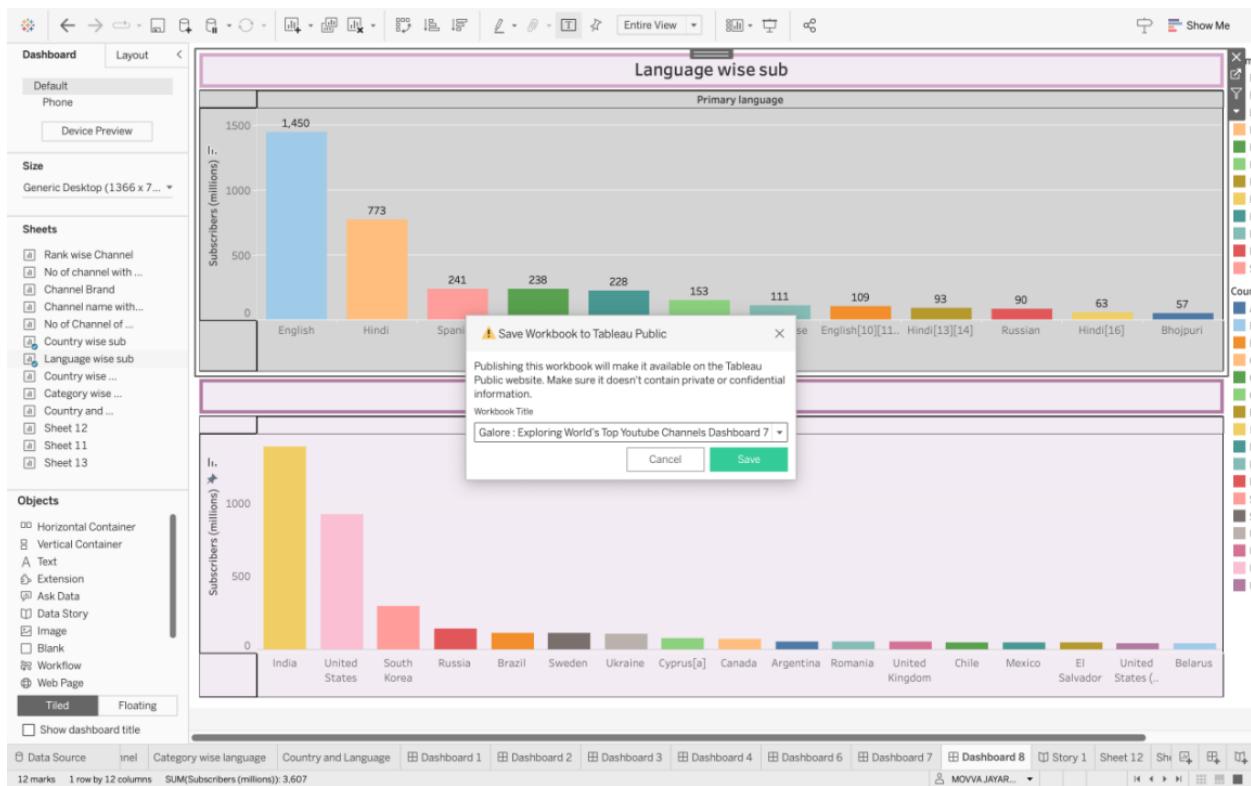
Data Source Category wise language Country and Language Dashboard 1 Dashboard 2 Dashboard 3 Dashboard 4 Dashboard 5 Story 1 Sheet 12 Sheet 11 Dashboard 6 Dashboard 7 Dashboard 8 Sheet 13





PUBLISHING:





Student Dashboard X Profile - jayaram.movva | Tableau Public +

public.tableau.com/app/profile/jayaram.movva/vizzes

salesforce

Create Learn

Want to take your data skills to the next level? Connect with the Tableau Community to accelerate your learning. Show me →

Customize Banner

MOVVA JAYARAM

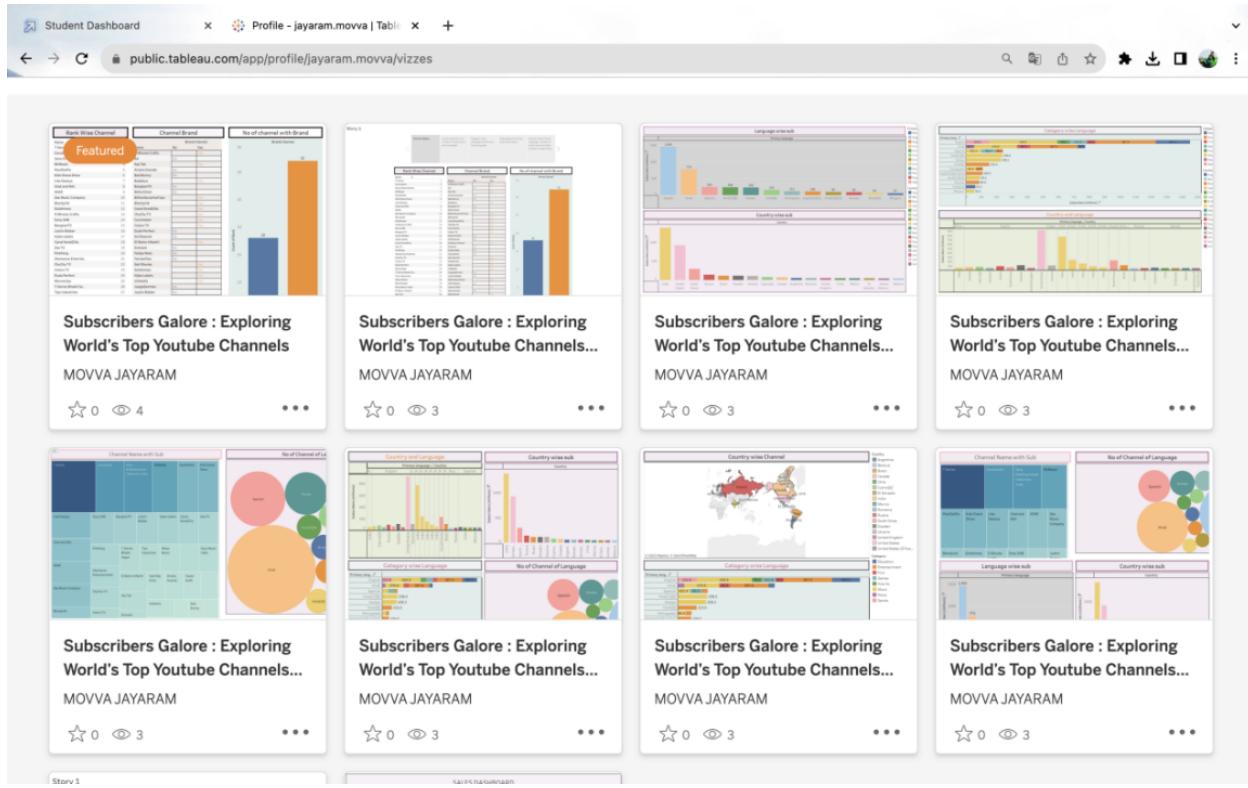
Vijayawada, Andhra Pradesh, India

Edit Profile Hire Me

Vizzes 10 Favorites 0 Following 0 Followers 0 Create a Viz

Featured

The screenshot shows a Tableau Public profile for MOVVA JAYARAM. At the top, there's a banner with a photo of the user, followed by their name "MOVVA JAYARAM" and location "Vijayawada, Andhra Pradesh, India". Below this are buttons for "Edit Profile" and "Hire Me". Underneath, there are stats: "Vizzes 10", "Favorites 0", "Following 0", and "Followers 0". A "Create a Viz" button is also present. The main area displays a grid of 10 visualizations, each with a title and a preview image. One visualization is highlighted with an orange circle around its title "Featured".



9)ADVANTAGES & DIS ADVANTAGES

ADVANTAGES:

- 1. Informed Decision-Making:** Enables data-driven decisions for content creators, businesses, and marketers.
- 2. Subscriber Growth Insights:** Provides a deeper understanding of factors influencing subscriber growth.
- 3. Content Strategy Optimization:** Helps creators refine content strategies by analyzing what attracts subscribers.
- 4. Demographic Understanding:** Offers insights into subscriber demographics for more targeted marketing.
- 5. Competitive Analysis:** Identifies successful strategies used by top YouTube channels.
- 6. Predictive Modeling:** Allows for forecasting future subscriber counts for goal setting and planning.
- 7. User Engagement Improvement:** Aids creators in improving audience engagement and retention.
- 8. Data-Driven Marketing:** Assists businesses in making informed decisions for influencer marketing and

advertising on YouTube.

9. Research Opportunities: Provides valuable data and insights for enthusiasts and researchers studying online trends.

1. **Clear Communication:** Visualizations and reporting features facilitate effective communication of findings to stakeholders.

DIS ADVANTAGES:

1. Data Privacy Concerns: Collecting and analyzing data on YouTube channels may raise privacy issues if the project involves scraping or using publicly available but sensitive information.

2. Incomplete Data: The project may face limitations in accessing comprehensive and up-to-date data for all top YouTube channels, which could lead to biased or incomplete analyses.

3. Data Quality Issues: Data collected from various sources may contain errors, inconsistencies, or missing values, affecting the accuracy of the analysis.

4. Ethical Considerations: Analyzing YouTube channels may raise ethical concerns, particularly if it involves potentially controversial or inappropriate content.

5. Sampling Bias: The data collected may not be representative of the entire population of YouTube channels, leading to skewed results.

6. Changing Algorithmic Factors: YouTube's recommendation and ranking algorithms frequently change, which can impact the accuracy and relevance of the analysis over time.

7. Biased User Behavior: User behavior on YouTube, such as liking, commenting, and subscribing, can be influenced by factors that are not easily measurable, leading to biased results.

8. Competition and Secrecy: Some YouTube channels may employ strategies to manipulate their subscriber counts or hide certain information, making it challenging to obtain accurate data.

9. Data Security: Storing and handling large datasets with potentially sensitive information may pose security risks, such as data breaches or unauthorized access.

10. Limited Predictive Power: While data analytics can provide insights, it may have limitations in accurately predicting the future success or trends of YouTube channels, as many factors are beyond the scope of the project.

10)CONCLUSION

In conclusion, the project "Subscribers Galore: Exploring World's Top YouTube Channels" offers the potential for valuable insights into the performance and trends of YouTube channels. However, it is essential to be aware of the numerous disadvantages and challenges associated with such a project. These include concerns about data privacy, the potential for incomplete or low-quality data, ethical considerations, and the ever-changing nature of YouTube's algorithms.

Furthermore, issues related to sampling bias, biased user behavior, competition, and data security should be carefully addressed to ensure the project's credibility and usefulness. It's important to recognize that while data analytics can provide valuable insights, it may have limitations in accurately predicting the future success or trends of YouTube channels, as there are many complex and external factors involved.

To mitigate these disadvantages and maximize the project's potential, a well-planned and ethical approach to data collection, analysis, and interpretation is crucial. Additionally, staying up to date with YouTube's policies and algorithmic changes is essential to maintain the project's relevance and accuracy over time. Despite these challenges, a thoughtful and rigorous data analytics project can still provide valuable insights into the world of YouTube channels and online content creation.

11)FUTURE SCOPE:

1. Predictive Analytics: The future scope includes the development of predictive models using historical data and machine learning to forecast the success and trends of YouTube channels, aiding content creators, and marketers in making data-driven decisions.

2. Advanced Recommendation Algorithms: Enhancing content recommendation algorithms based on user behavior and channel attributes to improve user engagement and satisfaction on YouTube and other video platforms.

3. Audience Segmentation: Segmenting YouTube channel audiences by their preferences and behavior to enable personalized content creation and targeted marketing, facilitating channel growth and monetization.

4. Content Moderation and Ethics: Future projects can focus on the development of AI-driven tools for content moderation and ethical assessments, helping address concerns regarding the appropriateness and legality of YouTube content.

5. Influencer Marketing and Collaboration: Analyzing the impact of influencer marketing on channel growth and exploring collaboration opportunities for content creators and brands as influencer marketing continues to evolve.

These future scope points highlight the potential for more sophisticated data analytics and insights, the improvement of user experiences, and the alignment of YouTube content with evolving ethical and regulatory standards.

12)APPENDIX:

Tableau Public Link:

<https://public.tableau.com/app/profile/jayaram.movva/vizzes>

GitHub Repository Link:

<https://github.com/smartinternz02/SI-GuidedProject-587483-1697199874>