SubscriberGalore:Exploring the World's Top YouTube Channel

TEAM ID : NM2023TMID05055

TEAM LEADER : SURENTHAR M

TEAM MEMBERS : SIVARANJINI,
SIVASELVAN,
SUVARAJ

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

"Subscriber Galore: Exploring The World's Top YouTube Channels" is a captivating project that delves deep into the dynamic world of YouTube, uncovering the secrets and stories behind the most popular and influential YouTube channels across diverse genres. Through in-depth research, interviews, and analysis, this project offers insight into the unique journeys, strategies, and creativity that have propelled these channels to online success, as well as the evolving trends and challenges creators face in the digital landscape. Join us on this journey into the heart of YouTube, as we unveil the dedication and creativity behind the world's top channels, providing a comprehensive look at the profound influence YouTube wields on content consumption in the 21st century.

1.1. PROJECT OVERVIEW

This project focuses on harnessing the power of data analysis to enhance the success of YouTube campaigns. In the modern Social media landscape, data-driven decision-making is essential for achieving the best results.

1.2. PROJECT OBJECTIVE / PURPOSE

- **Data-Driven Decision Making**:

  Utilize data analysis to shift marketing decisions from intuition to data-backed insights, enhancing the overall effectiveness of channels.

- **Audience Segmentation**:

  Employ data analysis to segment the audience into distinct groups based on branded channel, language, and region, tailoring content efforts accordingly.

- **Campaign Optimization**:

  Continuously monitor and refine YouTube campaigns through data analysis, ensuring they perform at their peak and adapt to changing in social media.

- **Personalization**:

  Implement personalized marketing strategies by analyzing customer data, creating a more engaging and relevant experience for the audience.

- **Cost Efficiency**:

  Optimize channel budgets by identifying highperforming content and strategies, reducing wastage and maximizing ROI.

- **Performance Metrics**:

  Develop key performance indicators (KPIs) to assess the effectiveness of channel efforts and adjust strategies.

1.3. PROJECT METHODOLOGY

- **Data Collection**:

Gather data from various sources, including customer interactions, website analytics, social media, and email campaigns.

- **Data Analysis**:

Employ statistical and machine learning techniques to extract valuable insights from the collected data, identifying trends, patterns, and correlations.

- **Audience Profiling**:

  Create detailed subscribers profiles, categorizing them based on language, content, and region.

- **Campaign Testing**:

  A/B testing and other experiments to assess the impact of datadriven changes on YouTube campaigns.

- **Iterative Optimization**:

  Continuously refine channel based on data analysis and feedback, adapting to trend shifts and audience preferences.

CHAPTER 2 LITERATURE SURVEY

A literature survey for "Subscriber Galore : Exploring The World's Top YouTube Channel" would involve reviewing academic research, industry reports, and scholarly articles to gain a comprehensive understanding of the subject. Below are some key themes and references that can be explored in such a survey

2.1 EXISTING PROBLEM

While "Subscriber Galore: Exploring the World's Top YouTube Channels" is an intriguing project that aims to delve into the dynamic world of YouTube and its top channels, it may face several existing problems and challenges, including:

1. **Content Saturation: The YouTube platform is incredibly vast, with millions of channels across various genres. Subscriber Galore may struggle with selecting and prioritizing which**

channels to feature, potentially leaving out some deserving ones.

2. **Changing Trends: YouTube trends and popular channels can change rapidly. What's trendy today may not be so tomorrow. The project may find it challenging to keep up with the ever-evolving landscape of YouTube.**
3. **Copyright and Licensing: Featuring YouTube content can run into issues related to copyright and licensing. Subscriber Galore may need to navigate complex copyright issues when using video clips and other content from the platform.**
4. **Audience Engagement: Engaging the audience and maintaining their interest throughout the project can be a significant challenge. It might be difficult to hold the attention of viewers over an extended period, especially if the content doesn't evolve or diversify.**
5. **Monetization and Funding: Sustaining a project of this nature can be costly. Subscriber Galore may struggle to secure funding or monetize the content effectively, potentially limiting the scope and depth of the exploration.**
6. **Data Accuracy and Privacy Concerns: Ensuring the accuracy of data related to subscribers, views, and channel statistics can be challenging. Moreover, there may be privacy concerns when collecting and presenting such data, which could lead to legal or ethical issues.**
7. **Competing Platforms: While YouTube is the dominant video-sharing platform, there are competing platforms like TikTok and Instagram that have also gained popularity. Subscriber Galore may need to address how these platforms fit into the broader landscape of online content creation.**

8. **Censorship and Content Moderation: YouTube has faced scrutiny and controversy over content moderation and censorship. Subscriber Galore might have to address these issues and their impact on creators and their audiences.**
9. **Diversity and Inclusivity: Ensuring diversity and inclusivity in the channels featured can be a challenge, as there's a risk of spotlighting only the most popular, which may not be representative of the full spectrum of YouTube content creators.**
10. **Platform Changes: YouTube frequently updates its algorithms and policies, which can significantly affect channel performance and visibility. Subscriber Galore must adapt to these changes and their implications for content creators.**

2.2 REFERENCES

Books:

1. **"YouTube Secrets: The Ultimate Guide to Growing Your Following and Making Money as a Video Influencer" by Sean Cannell and Benji Travis - This book offers practical advice for aspiring YouTube content creators on how to grow their channel and monetize their content.**
2. **"Crushing It!: How Great Entrepreneurs Build Their Business and Influence—and How You Can, Too" by Gary Vaynerchuk - While not specific to YouTube, this book explores how entrepreneurs can build their personal brand and reach a wider audience through digital platforms, including YouTube.**

3. **"The YouTube Formula: How Anyone Can Unlock the Algorithm to Drive Views, Build an Audience, and Grow Revenue" by Derral Eves - Derral Eves, a YouTube expert, delves into strategies for maximizing visibility and engagement on the platform.**
4. **"YouTube For Dummies" by Doug Sahlin and Chris Botello - This comprehensive guide provides practical tips and techniques for creating, managing, and growing a YouTube channel.**
5. **"The New Media Invasion: Digital Technologies and the World They Unmake" by John David Ebert - This book offers a broader perspective on the impact of digital media, including YouTube, on culture, society, and entertainment.**
6. **"The YouTube Reader" edited by Pelle Snickars and Patrick Vonderau - This collection of essays provides academic insights into YouTube's cultural, social, and economic significance.**
7. **"Digital Media Ethics" by Charles Ess - While not YouTube-specific, this book explores the ethical considerations and challenges that arise in the digital media landscape, which can be relevant to content creators.**
8. **"The Influencer Economy: How to Launch Your Idea, Share It with the World, and Thrive in the Digital Age" by Ryan Williams - This book discusses the influencer culture and how individuals can use platforms like YouTube to make an impact.**

Articles:

1. **YouTube Algorithm and SEO**:
    - "How to Optimize Your YouTube Videos for Search" (Published on the YouTube Creator Blog).
2. **YouTube Content Creation and Strategy**:
    - "10 YouTube Strategies for Building an Audience" (Published on Hootsuite Blog).
3. **YouTube Monetization and Earnings**:
    - "How Much Money YouTubers Make (A Realistic Guide)" (Published on Influencer Marketing Hub).
4. **YouTube Analytics and Metrics**:
    - "The Essential Guide to YouTube Analytics" (Published on Sprout Social).
5. **YouTube Copyright and Fair Use**:
    - "YouTube Copyright School: A Crash Course" (Published on YouTube Help).
6. **YouTube Trends and Challenges**:
    - "The Evolution of YouTube: From Viral Videos to the World's Second Largest Search Engine" (Published on HubSpot).
7. **YouTube and Influencer Marketing**:

- "The State of Influencer Marketing 2022" (Published on Influencer Marketing Hub).

8. **YouTube's Impact on Pop Culture**:

   - "How YouTube and Internet Video Are Changing the Media Landscape" (Published on Pew Research Center).

9. **YouTube Community and Engagement**:

   - "Building an Engaged Community on YouTube" (Published on Social Media Examiner).

10. **YouTube and Educational Content**:

    - "The Rise of Educational YouTube Channels: 10 YouTubers You Need to Know" (Published on EdSurge).

Reports and Case Studies:

Various industry-specific reports and case studies from Social media and consulting firms can provide real-world examples of how data analysis is being used for growth of YouTube channel.

2.3 PROBLEM SATEMENT DEFINITION

"The problem statement for 'Subscriber Galore' encapsulates the challenge of conducting a comprehensive and engaging exploration of the diverse world of YouTube's top channels. This project aims to address the issues related to channel selection, content relevancy, and audience engagement, recognizing the rapid evolution and complexity of YouTube's landscape. It also encompasses challenges related to copyright, data privacy, and platform dynamics to ensure the project's ongoing success and relevance in the ever-changing digital media environment."

CHAPTER 3 IDEATION & PROPOSED SOLUTION

1. **Structured Content Curation:** Implement a well-structured system for channel selection that ensures representation across various genres and regions. Create a selection committee to regularly evaluate and curate a list of channels to feature, considering factors like subscriber count, engagement, and influence.

2. **Audience-Centric Approach:** To enhance audience engagement, employ a user-driven approach. Allow viewers to suggest channels, topics, and questions they want to see explored. Use social media and interactive content to foster a sense of community and participation.

3. **Ethical Content Use:** To address copyright concerns, collaborate with YouTube content creators, when possible, to secure permissions for using video clips and other content in the project. This collaboration can lead to valuable insights and authentic content.

4. **Privacy and Data Protection:** Ensure that all data collected and presented adheres to privacy regulations. Use anonymized statistics and aggregated data when discussing subscriber counts and analytics, respecting both creators' and users' privacy.

5. **Flexibility and Timeliness:** Recognize the ever-changing nature of YouTube. Be adaptable and stay updated with the latest trends, algorithm changes, and platform updates to provide viewers with fresh and timely insights.

6. **Transparency and Disclosure:** Maintain transparency in all content. Clearly disclose any sponsorships, partnerships, or conflicts of interest to maintain trust with the audience.

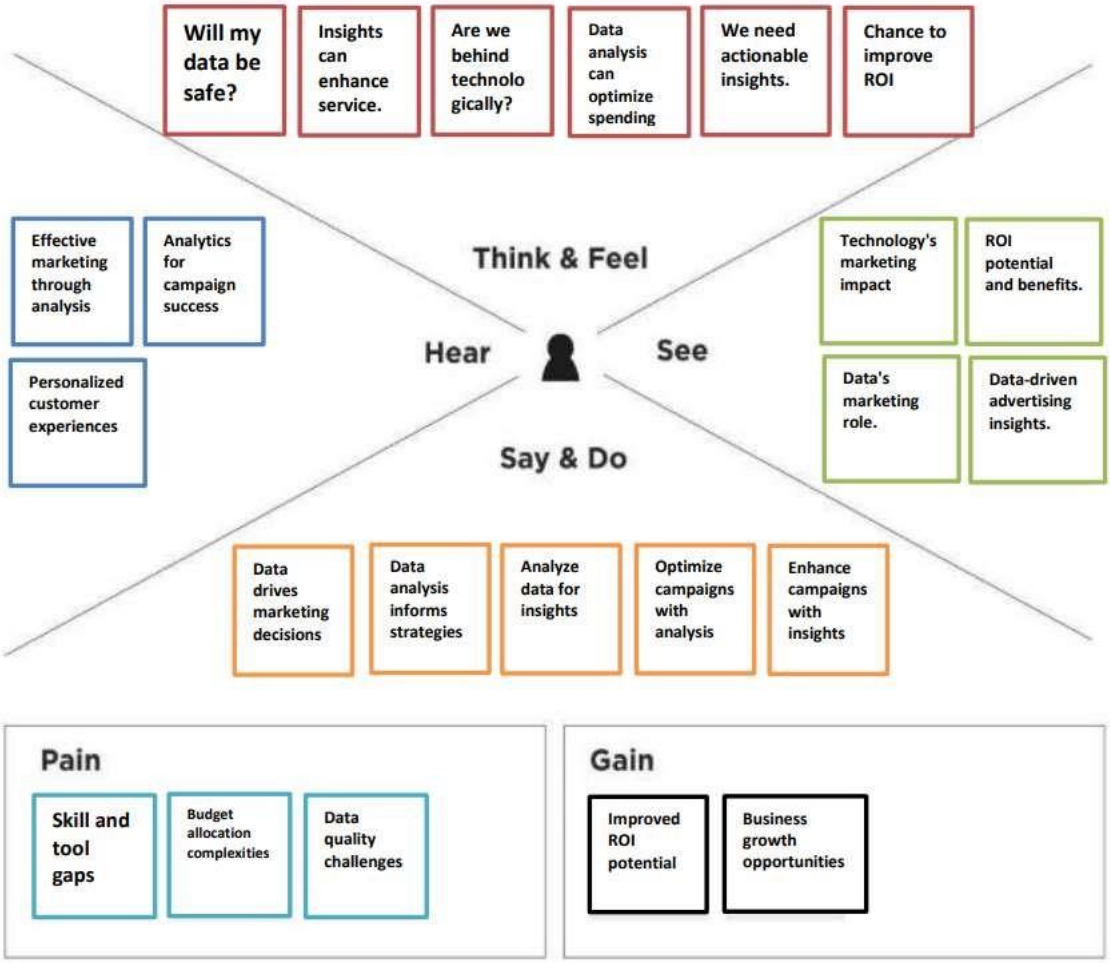
7. **Diversity and Inclusivity:** Place a strong emphasis on showcasing diverse voices and channels, ensuring a wide representation of YouTube's rich cultural and genre diversity.

8. **Interactive Content:** Incorporate interactive elements such as polls, Q&A sessions, and live events to keep the audience engaged and foster a sense of interactivity.

9. **Long-Term Sustainability:** Develop a sustainable funding model that supports the project's long-term viability, whether through advertising, sponsorships, or crowdfunding.

10. **Continuous Feedback Loop:** Establish a feedback mechanism where the audience can provide input and suggest improvements, ensuring that the project remains aligned with viewers' interests.

3.1 EMPATHY MAP CANVAS



3.2 IDEATION & BRAINSTORMING

Certainly, here's a brainstorm of ideas for "Subscriber Galore: Exploring The World’s Top YouTube Channel" to make it an engaging and informative project:

1. **Channel Showcases**: Dedicate episodes or segments to showcase top YouTube channels from different genres. Explore their history, content, and the creators behind them.

2. **Creator Interviews**: Conduct in-depth interviews with popular YouTubers to uncover their journey to success, creative processes, and insights into building a dedicated subscriber base.

3. **Behind-the-Scenes**: Offer a glimpse behind the scenes of YouTube channel production, highlighting the effort and creativity that goes into making engaging content.

4. **Case Studies**: Analyze the strategies used by top channels to attract and retain subscribers. Break down successful video concepts, marketing techniques, and audience engagement strategies.

5. **Audience Participation**: Encourage audience participation by allowing them to vote on the channels to be featured, submit questions for creators, or participate in challenges related to the channels.

6. **Historical Perspective**: Explore the history of YouTube, showcasing how it has evolved from its early days to its current state, with a focus on iconic channels that have played a significant role in this evolution.

7. **Global Reach**: Feature YouTube channels from around the world, highlighting the international impact of the platform and its diverse content creators.

8. **Content Trends**: Investigate current content trends and challenges on YouTube, providing insights into what's popular and what's emerging.

9. **YouTube Impact**: Examine the broader impact of YouTube on entertainment, education, social issues, and pop culture. Discuss how YouTube has become a pivotal part of our digital lives.

10. **Collaborations**: Showcase collaborations between different channels or creators, highlighting the power of cross-promotion and creative synergy.

11. **Audience Stories**: Share stories from subscribers who have been positively influenced or inspired by the featured channels. Give voice to the audience's perspective.

12. **YouTube Community**: Explore the supportive and sometimes competitive community among YouTubers. Discuss how creators network, collaborate, and share their knowledge.

13. **YouTube Challenges**: Dive into challenges and controversies faced by YouTubers, such as algorithm changes, copyright disputes, and issues related to demonetization.

14. **Content for Change**: Highlight channels that focus on social causes, education, and positive change, showcasing the impact of YouTube in making a difference.

15. **Live Events**: Organize live Q&A sessions with popular YouTubers, where the audience can ask questions and engage directly with their favorite creators.

16. **Interactive Website**: Create a dedicated website for "Subscriber Galore" with additional content, resources, and a community forum where viewers can discuss and engage further.

17. **YouTube Evolution Timeline**: Develop an interactive timeline that tracks the evolution of YouTube, including key events and influential channels throughout its history.

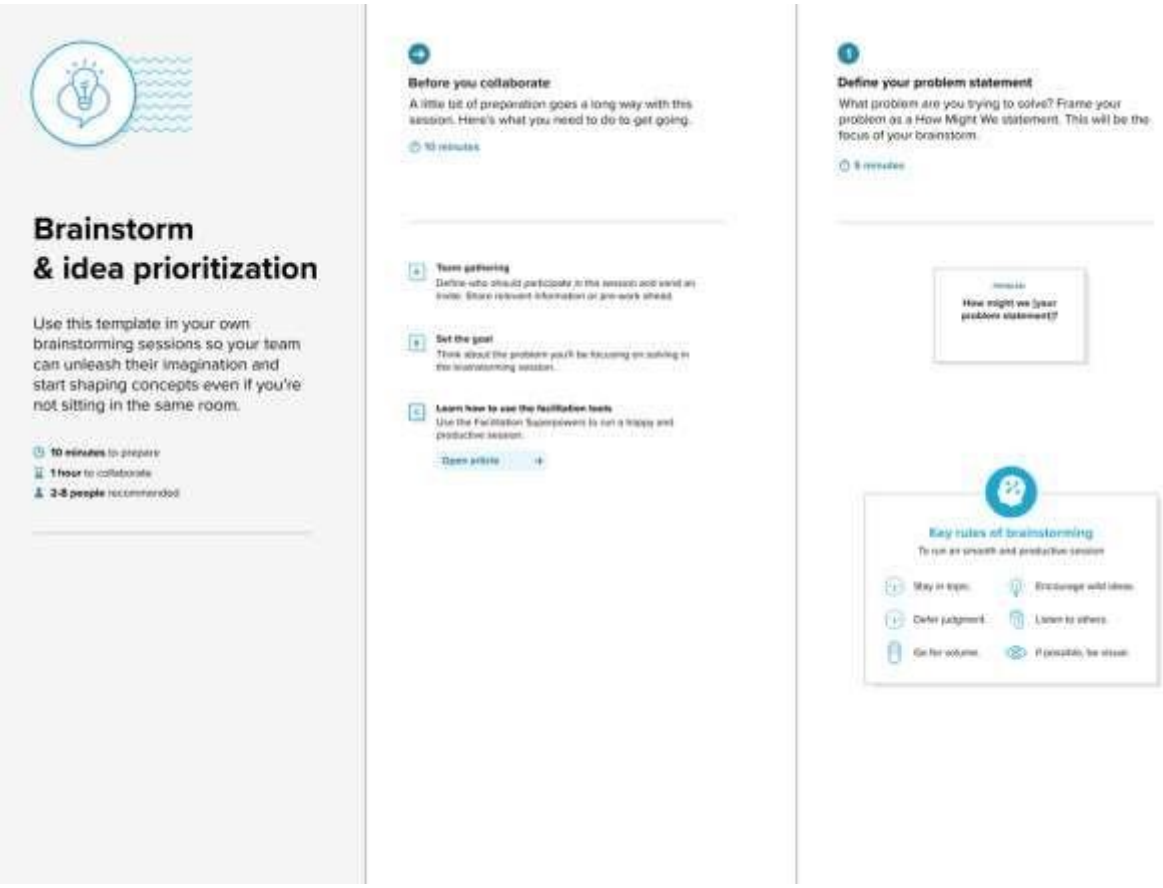
18. **Industry Insights**: Interview experts in the digital media industry, YouTube representatives, and media scholars to gain insights into the platform's future and its impact on the media landscape.

19. **Fan Art and Fan Tributes**: Feature fan art and tributes created by subscribers, celebrating their favorite YouTubers.

20. **Collaborative Projects**: Collaborate with other YouTube-focused projects or content creators to reach a broader audience and create synergy in the YouTube exploration space.

By incorporating these brainstormed ideas, "Subscriber Galore" can offer a diverse and engaging experience that caters to a wide range of interests within the YouTube community.

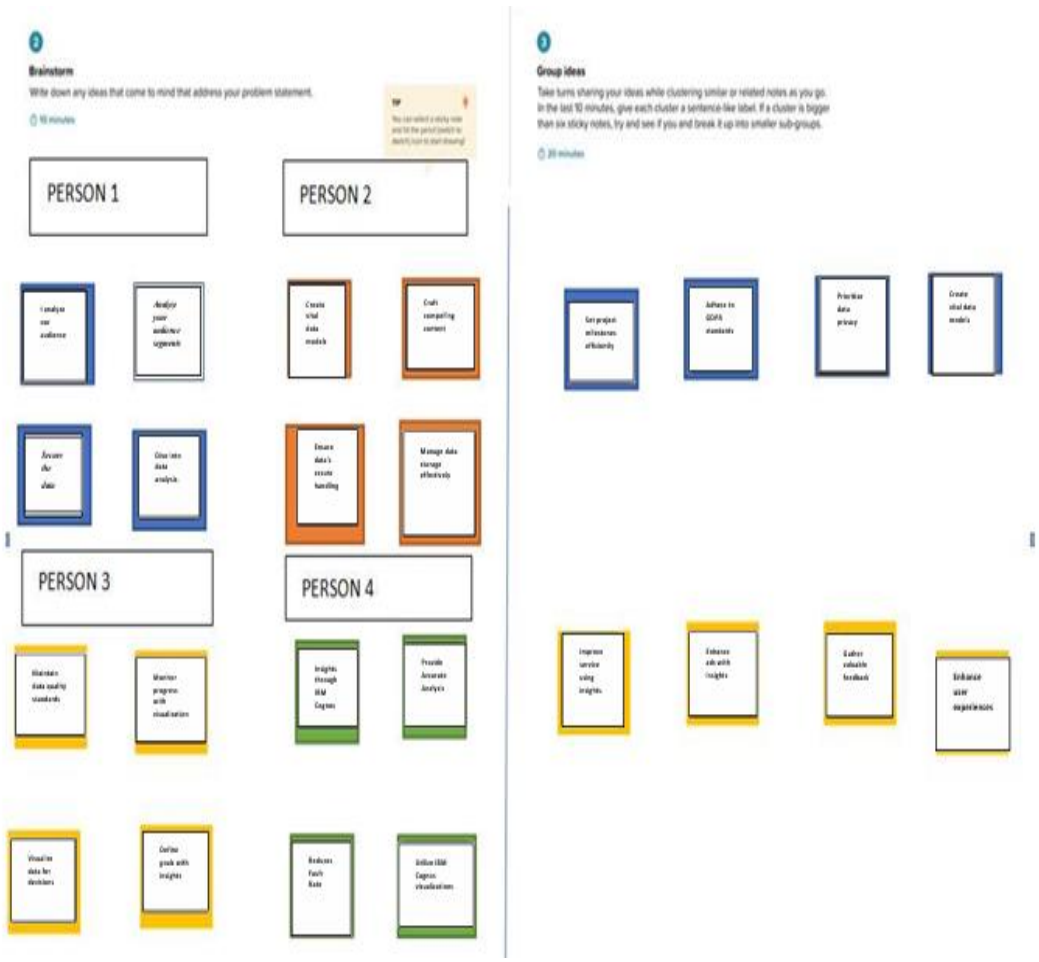
Step-1: Team Gathering, Collaboration and Select the Problem Statement



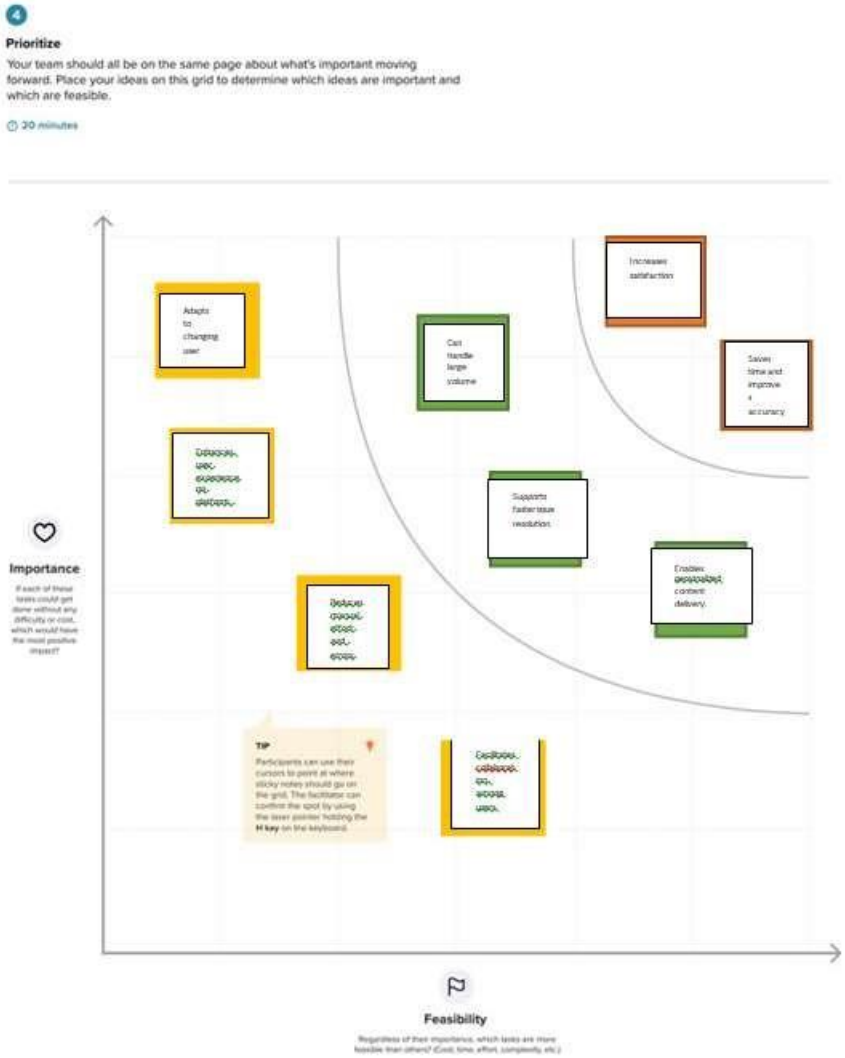
Problem

The real problem is there is no proper visualizations for analysing data. So by using "IBM COGNOS ANALYSIS" we can provide our solutions through various visualizations for our topic "Subscribers galore : Exploring the World's Top YouTube Channels**"**

Step-2: Brainstorm, Idea Listing and Grouping :-



Step-3: Idea Prioritization



CHAPTER 4

REQUIREMENT ANALYSIS

Requirement analysis for Subscriber Galore: Exploring The World's Top YouTube Channels success involves identifying the essential elements and criteria necessary to meet the objectives of data-driven marketing strategies.

4.1 FUNCTIONAL REQUIREMENT

1. Data Collection:

Requirement: Collect data from various sources, including website analytics, CRM systems, social media, email campaigns, and customer interactions.

Capability: Implement data capture mechanisms, APIs, and data connectors to gather information from multiple touchpoints.

2. Data Integration:

Requirement: Integrate data from different sources to create a centralized repository.

Capability: Use ETL (Extract, Transform, Load) processes and data integration tools to merge and harmonize data for analysis.

3. Data Cleaning and Preprocessing:

Requirement: Ensure data accuracy and consistency by cleaning and preprocessing raw data.

Capability: Implement data validation and transformation routines to handle missing, incorrect, or inconsistent data.

4. Customer Segmentation:

Requirement: Segment customers based on language, content, and region.

Capability: Utilize data analysis algorithms to identify customer segments and tailor marketing strategies accordingly.

5. **Predictive Analytics:**

Requirement: Develop predictive models to forecast customer behavior.
Capability: Use machine learning and statistical techniques to create predictive models for customer response and conversion.

6. **Real-time Data Analysis:**

Requirement: Analyze data in real-time to make timely campaign adjustments.

Capability: Implement real-time analytics tools and dashboards for quick insights into campaign performance.

7. **Personalization:**

Requirement: Deliver personalized content and offers to customers.
Capability: Utilize AI and machine learning to tailor content and recommendations based on individual preferences.

8. **Attribution Modeling:**

Requirement: Determine the contribution of each content touchpoint to conversions.

Capability: Implement advanced attribution models to assess the impact of different touchpoints on subscribers journeys.

9. A/B Testing and Experimentation:

Requirement: Conduct experiments to refine marketing strategies.

Capability: Set up A/B testing processes to test variations in campaigns and analyze results for optimization.

10. Reporting and Visualization:

Requirement: Generate reports and visualizations for key stakeholders.

Capability: Create customizable dashboards and reports that communicate data insights effectively.

11. Cross-functional Collaboration:

Requirement: Foster collaboration between social media, data analysis, and

IT teams.

Capability: Enable communication and knowledge sharing among different departments involved in data-driven marketing.

12. Data Security Measures:

Requirement: Protect customer data and ensure ethical data usage.

Capability: Implement encryption, access controls, and data governance policies to safeguard customer information.

13. Compliance Management:

Requirement: Ensure adherence to data privacy regulations.

Capability: Develop processes and documentation to demonstrate compliance with relevant regulations (e.g., GDPR, CCPA).

14. Continuous Improvement:

Requirement: Continuously refine trends based on data analysis.

Capability: Establish a culture of continuous improvement and ongoing learning, adapting to changing channel dynamics.

4.2 NON-FUNCTIONAL REQUIREMENTS

1. **Data Accuracy and Integrity:**

Requirement: Data must be accurate, consistent, and reliable.

Criteria: Data accuracy should be within a defined margin of error. Data integrity should be maintained throughout data storage and processing.

2. **Data Security and Privacy:**

Requirement: Ensure robust data security and compliance with data privacy regulations.

Criteria: Data should be protected from unauthorized access, breaches, and cyber threats. Compliance with GDPR, CCPA, and other relevant regulations must be maintained.

3. **Scalability:**

Requirement: The system should be able to scale to accommodate growing data volumes.

Criteria: The system should handle an increase in data and user load without significant performance degradation.

4. **Performance:**

Requirement: Analyze data and deliver insights with minimal latency.

Criteria: The system should provide fast query response times and be capable of real-time analysis to support timely decision-making.

5. **Availability:**

Requirement: Ensure high system availability to support continuous trending operations.

Criteria: The system should have minimal downtime and provide redundant components for fault tolerance.

6. **Reliability:**

Requirement: The system should be reliable in data processing and analytics.

Criteria: The system should have mechanisms in place to ensure data accuracy and processing reliability.

7. **User Experience:**

Requirement: Provide an intuitive and user-friendly interface for data analysis.

Criteria: Users should be able to navigate the system easily and efficiently, with minimal training required.

8. **Compliance Documentation:**

Requirement: Maintain comprehensive documentation of data privacy compliance.

Criteria: Documentation should be readily available for audit purposes and should demonstrate adherence to relevant regulations.

9. Data Retention Policies:

Requirement: Define data retention and purging policies.

Criteria: Data should be retained and purged in accordance with regulatory requirements and the organization's data management policies.

10. Disaster Recovery and Backup:

Requirement: Establish disaster recovery and data backup processes.

Criteria: Ensure data recovery in the event of system failures, data loss, or catastrophic events.

11. Cost Management:

Requirement: Manage costs related to data storage, processing, and analysis.

Criteria: Implement cost-effective solutions and regularly monitor and optimize expenses related to data analysis.

12. Data Governance:

Requirement: Maintain a strong data governance framework.

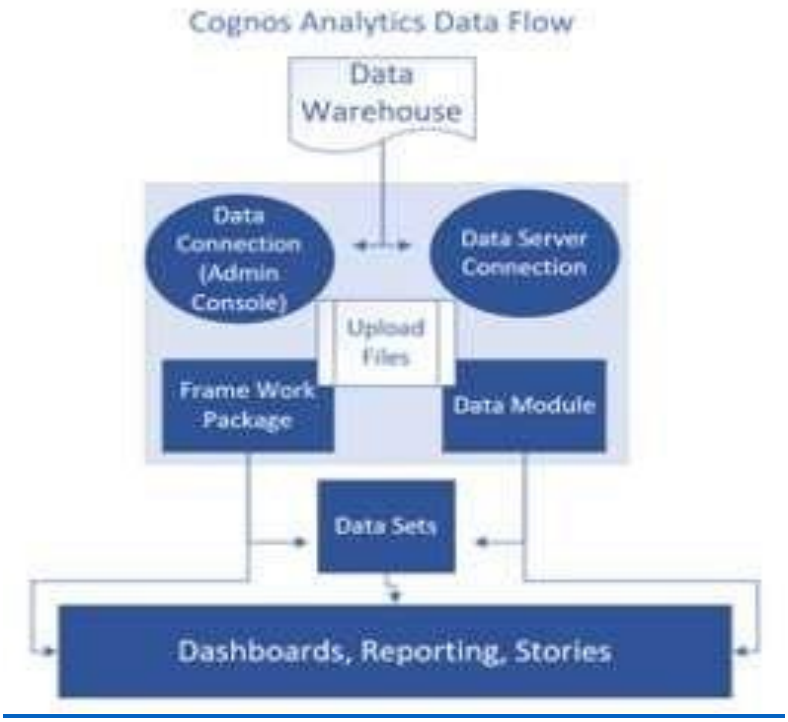
Criteria: Implement data governance policies to ensure data quality, data lineage, and data stewardship.

CHAPTER 5

PROJECT DESIGN

Designing a project for leveraging data analysis for optimal marketing campaign success involves planning the project's structure, key milestones, and tasks. A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

5.1 DATAFLOW DIAGRAM & USER STORIES



User Stories:

User Story 1: Channel/content Creator

As a Channel/content creator, I want to access real-time campaign performance data so that I can make immediate adjustments to campaigns based on the data analysis.

Acceptance Criteria:

- I can log into the analytics dashboard.

- The dashboard displays real-time data on campaign engagement, conversions, and subscribers demographics.
- I can view real-time analytics for all active campaigns.
- The system alerts me to significant changes in campaign performance**.**
- I can make adjustments to campaigns directly from the dashboard, such as changing ad targeting or adjusting email content.

User Story 2: Data Analyst

As a data analyst, I want to have access to clean and integrated data sources so that I can perform in-depth customer segmentation for marketing campaigns.

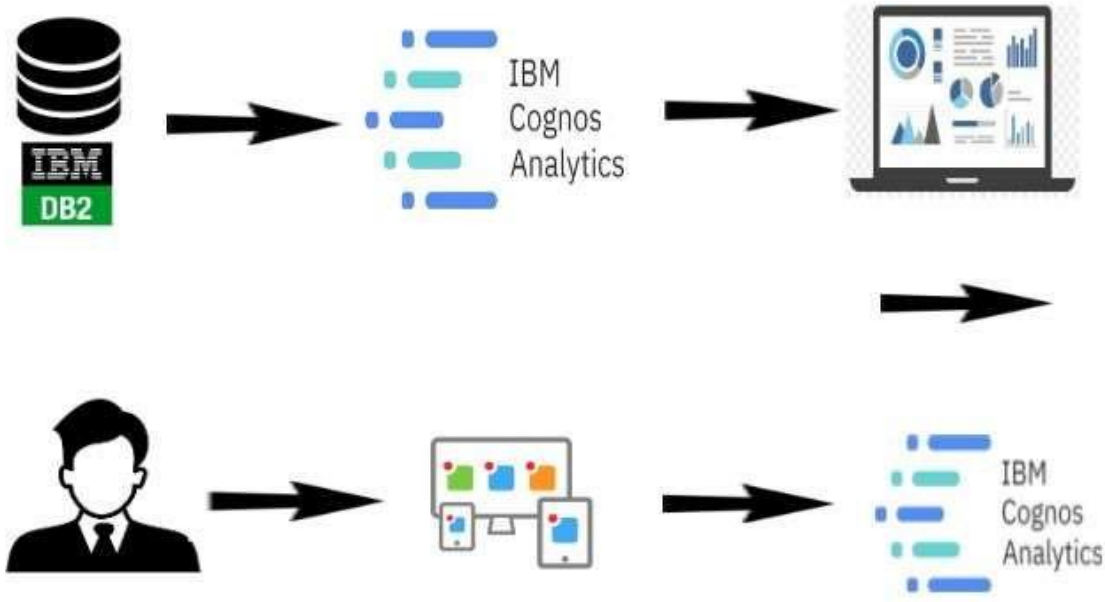
Acceptance Criteria:

- I can access the integrated data repository.
- The data is cleaned, consistent, and up-to-date.
- I have tools and access to perform advanced data analysis.
- I can create detailed customer segments based on demographics, behavior, and preferences.
- The system allows me to export segmented customer data for campaign targeting.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Data Analyst	Data Analysis Capability	US001	As a Data Analyst, I want to access IBM Cognos Analytics to perform data analysis for campaign success.	- Log in to IBM Cognos Analytics. - Import marketing campaign data. - Analyze data to identify trends and insights.	High	Sprint 1.0
Data Analyst	Data Visualization	US002	As a Data Analyst, I want to create data visualizations in IBM Cognos Analytics for marketing campaigns.	- Access data in IBM Db2. - Create informative visualizations. - Customize dashboards.	High	Sprint 1.0
IT Specialist	Data Security and Integration	US003	As an IT Specialist, I want to ensure data security and smooth integration of IBM Cognos Analytics with IBM Db2.	- Configure secure data access. - Monitor data integration. - Implement data security measures.	High	Sprint 1.0
Finance Team	Budget Optimization	US004	As a member of the Finance Team, I want to utilize data insights to optimize marketing campaign budgets.	- Access data-driven budget insights. - Analyze spending patterns. - Allocate budget efficiently.	Medium	Sprint 1.1
Compliance Officer	Data Privacy Compliance	US005	As a Compliance Officer, I want to ensure legal data handling and GDPR compliance when using IBM Cognos Analytics and IBM Db2.	- Implement data privacy measures. - Monitor GDPR compliance. - Protect customer data.	High	Sprint 1.0
Team Leader	Project Coordination	US006	As a Team leader, I want to coordinate the efforts of the team to implement data analysis for YouTube campaigns successfully.	- Define project milestones. - Coordinate data analysis tasks. - Monitor project progress.	High	Sprint 1.0
Customer Support	Improved User Experience	US007	As a Customer Support representative, I want to gather customer feedback and use data insights to enhance user experiences.	- Collect customer feedback. - Address concerns effectively. - Improve user satisfaction.	Medium	Sprint 1.1
CEO/Manag ement	Alignment with Goals	US008	As CEO/Management, we want to ensure that data analysis aligns with our channel goals and supports informed decision-making.	- Review data analysis strategy. - Assess the alignment with goals. - Support strategic decisions.	High	Sprint 1.0

5.2 SOLUTION ARCHITECTURE

Solution Architecture for Subscriber Galore : Exploring The World's Top YouTube Channel:



1. Data Sources:

- Customer data, including demographic and behavioral data.
- Website analytics data.
- Social media data.
- Email campaign data.
- Offline interaction data (if applicable).

2. Data Integration:

- Data is collected from various sources and integrated into a centralized repository.
- Data integration processes ensure data consistency and quality.
- Integration tools and ETL processes are used for data consolidation.

3. Data Analysis Layer:

- Data analysis tools and platforms, such as data warehouses and data lakes.
- Predictive analytics models for customer behavior forecasting.
- Real-time data analysis tools for immediate insights.
- Machine learning algorithms for customer segmentation and personalization.

4. Automation and Campaign Management:

- Automation software that integrates with the data analysis layer.
- Automation rules triggered by customer behavior and data insights.
- A/B testing and experimentation features for campaign refinement.

5. Attribution Modeling:

- Advanced attribution models that consider all touchpoints.
- Tools for assessing the impact of different touchpoints on subscriber journeys.

6. Real-time Analytics and Reporting:

- Real-time analytics dashboards for monitoring campaign performance.
- Customizable reports that include key performance indicators (KPIs) and data insights.
- Automated alerts for significant changes in campaign performance.

7. Data Security and Compliance:

- Data encryption and access controls to protect subscriber data.
- Compliance management tools to adhere to data privacy regulations (e.g., GDPR, CCPA).
- Data governance policies for maintaining data quality and compliance documentation.

8. User Interface:

- User-friendly interfaces for marketing teams and data analysts.
- Dashboards and visualization tools for data interpretation and campaign adjustment.
- Access to personalized content and recommendations for content creators.

9. Cross-functional Collaboration:

- Collaboration tools and communication channels for data analysis, and IT teams to work together.
- Shared project management platforms for collaborative project planning.

10. Training and Culture Building:

- Training platforms and programs for upskilling creator and data analysis teams.
- Workshops and awareness programs to foster a data-driven culture.

11. Continuous Improvement:

- Ongoing monitoring and adjustment of data analysis tools and content strategies.
- Mechanisms for optimizing data analysis processes based on feedback and emerging technologies.

12. Disaster Recovery and Backup:

Data backup and disaster recovery processes to ensure data continuity in case of system failures or data loss.

13. Documentation and Reporting:

- Documentation of data analysis processes, data privacy compliance, and trending strategies.
- Regular reporting mechanisms to share insights and findings with key stakeholders.

14. Project Management:

Project management tools and platforms for planning, executing, and monitoring the project's progress.

15. Cloud Infrastructure (Optional):

Cloud-based infrastructure for scalability and flexibility in data analysis and storage.

16. Customer Segmentation and Personalization:

Tools and algorithms for creating and applying customer segments and personalizing marketing content.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	Data Source	IBM Db2	Relational Database
2	Data Analysis and Visualization	IBM Cognos Analytics	Business Intelligence (BI) Tool
3	Data Integration	IBM Db2 Connect	Data Integration Software
4	Data Security	RBAC, Data Encryption	Security Mechanisms
5	Reporting and Dashboarding	IBM Cognos Dashboards	Reporting and Dashboarding Tool
6	Data Quality Assurance	Data Cleaning and Transformation Tools	ETL Tools (e.g., Informatica)
7	Project Management	Project Management Software (e.g., Jira, Trello)	Project Management Tools
8	Data Storage	IBM Db2	Relational Database
9	Compliance and Data Privacy	GDPR Compliance Tools and Policies	Compliance Software
10	Marketing Campaign Management	Marketing Automation Tools (e.g., HubSpot, Marketo)	Marketing Software
11	Customer Feedback Collection	Feedback Forms, Surveys	Data Collection Tools
12	Customer Support	CRM Software (e.g., Salesforce, Zendesk)	Customer Relationship Management (CRM) Software
13	Collaboration and Communication	Team Collaboration Tools (e.g., Slack, Microsoft Teams)	Collaboration Tools
14	Budget Management	Financial Software (e.g., QuickBooks, Xero)	Financial Software
15	IT Infrastructure	Server and Network Infrastructure	IT Infrastructure
16	User Training	Training Materials, Workshops	Training Resources
17	Data Backup and Recovery	Data Backup Systems	Backup and Recovery Solutions
18	Data Monitoring	Data Monitoring Tools	Monitoring Software
19	Analytics Tools	Advanced Analytics Tools (e.g., Python, R)	Analytics Software
20	Marketing Tools	Digital Marketing Software (e.g., Google Ads, Facebook Ads)	Marketing Software

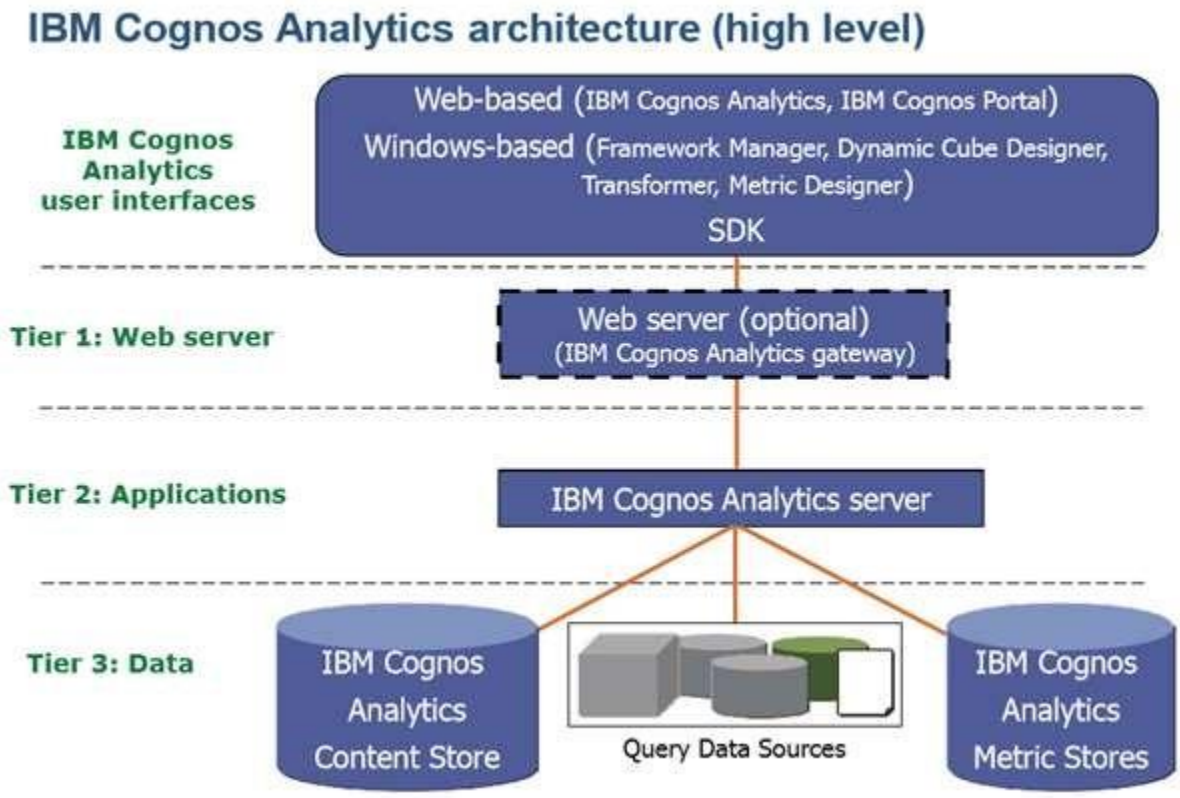
Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Scalability	The application should be able to scale with growing data and user demands.	Scalable Architecture
2	Performance	The application must provide fast data analysis and reporting.	Performance Optimization
3	Security	Data security and privacy are critical aspects of the application.	Security Features
4	User-Friendly	The application should be intuitive for users with varying technical backgrounds.	User-Friendly Interface
5	Real-Time Insights	Users should have access to real-time marketing campaign insights.	Real-Time Processing
6	Data Accuracy	The application must ensure data accuracy for informed decision-making.	Data Validation
7	Integration Capabilities	The application should integrate seamlessly with various data sources and tools.	Integration APIs
8	Compliance	Compliance with data privacy regulations like GDPR is essential.	Compliance Features
9	Collaboration	Users should be able to collaborate and share insights within the application.	Collaboration Tools
10	Mobility	The application should be accessible on mobile devices for on-the-go analysis.	Mobile Compatibility

CHAPTER 6

PROJECT PLANNING & SCHEDULING

6.1 TECHNICAL ARCHITECTURE



1. Data Sources:

Customer Data: Collected from various touchpoints, including online and offline interactions.

Website Analytics Data: Captured through web analytics tools.

Social Media Data: Collected from social media platforms.

Email Campaign Data: Gathered from email marketing software.
Third-party Data: May include external data sources for enrichment.

2. Data Integration:

ETL (Extract, Transform, Load) Processes: Extract data from source systems, transform and clean it, and load it into a centralized data repository.

Data Integration Tools: Use tools like Apache Nifi, Talend, or Apache Kafka to manage data pipelines.

Data Warehouse or Data Lake: Store integrated data for analysis.

3. Data Analysis Layer:

Data Analytics Platforms: Utilize platforms such as Apache Spark, Hadoop, or cloud-based solutions like AWS EMR or Google Dataprep for data processing and analysis.

Machine Learning Frameworks: Incorporate machine learning libraries like scikit-learn or TensorFlow for predictive analytics.

Real-time Analytics Tools: Implement tools such as Apache Flink or Kafka Streams for real-time data analysis.

Data Exploration and Visualization Tools: Use tools like IBM cognos analysis , or custom dashboards to interpret and visualize data.

4. **Attribution Modeling:**

Custom Attribution Models: Develop custom attribution models based on the organization's specific needs.

Attribution Modeling Software: Leverage attribution modeling tools like Google Attribution or Adobe Analytics for campaign effectiveness assessment.

5. **Real-time Analytics and Reporting:**

Real-time Analytics Dashboards: Create custom dashboards using tools like Apache Superset or custom-built dashboards to monitor campaign performance in real-time.

Automated Alerting: Set up automated alerts for significant changes in campaign performance using tools like DataDog or PagerDuty.

Customizable Reports: Generate reports that incorporate KPIs and data insights using reporting tools and libraries.

6. Data Security and Compliance:

Data Encryption: Encrypt data in transit and at rest to ensure data security.

Access Control and Authorization: Implement role-based access control (RBAC) to restrict data access.

Compliance Management Tools: Utilize tools for compliance documentation and audits.

Data Governance Framework: Establish data governance policies and data stewardship practices.

7. User Interfaces:

User-friendly Dashboards: Create intuitive, user-friendly dashboards for YouTubers, data analysts, and executives.

Personalized Content Interfaces: Implement interfaces that enable marketing content creators to personalize content and campaigns.

8. Cloud Infrastructure (Optional):

Cloud-Based Solutions: Consider cloud-based infrastructure for scalability and flexibility. Options include AWS, Azure, Google

Cloud, or other cloud providers.

9. **Cross-functional Collaboration:**

Collaboration Tools: Use collaboration and communication platforms (e.g., Slack, Microsoft Teams) to facilitate cross-functional teamwork.

Project Management Tools: Implement project management platforms (e.g., Jira, Trello) to coordinate project tasks and timelines.

10. **Disaster Recovery and Backup:**

Data Backup and Recovery: Set up regular data backups and disaster recovery plans to ensure data continuity in case of system failures.

11. **Data Retention and Purging:**

Data Retention Policies: Define data retention and purging policies to adhere to regulatory requirements and data management best practices.

6.2 SPIRIT PLANNING & ESTIMATION

Sprint planning and estimation for a project like "Subscriber Galore: Exploring the World's Top YouTube Channel" involve breaking down the work into manageable tasks and determining the time required for each task. Here's a simplified sprint planning and estimation for the project:

Sprint 1: Research and Content Selection

- **Research and compile a list of top YouTube channels from different genres.**
- **Create a selection criteria and process for future channel curation.**

Task 2: Initial Channel Outreach

- **Reach out to channel owners for interviews or collaboration.**

-Task 3: Research and Write Episode Outlines

- **Create outlines for the first 5 episodes, including key content, questions, and themes.**

Sprint 2: Pre-production and Audience Engagement

Task 4: Interview Scheduling

- **Coordinate interview schedules with channel owners.**

- Prepare questions and research for interviews.

Task 5: Social Media Promotion Plan

- Create a plan for promoting the upcoming series on social media platforms.

Task 6: Interactive Element Development

- Develop and test interactive elements, such as polls and audience participation features.

Sprint 3: Production and Content Creation

-Task 7: Filming and Editing

- Film interviews and behind-the-scenes footage.

- Edit and produce the first 3 episodes.

Sprint 4: Post-production and Launch Preparation

Task 8: Additional Content Creation

- Create additional content such as intro/outro sequences, animations, and graphics.

Task 9: Website Development

- Design and develop the project's interactive website for supplemental content.

Sprint 5: Launch and Engagement

Task 10: Launch the First Episode

- Release the first episode on the project's YouTube channel and other platforms.

Task 11: Monitor Audience Engagement

- **Engage with the audience through comments, social media, and interactive elements.**

Task 12: Feedback Collection

- **Collect feedback from the audience and make necessary adjustments.**

Sprint 6: Continuous Content Creation and Analysis

Task 13: Ongoing Content Creation

- **Continue with content creation, filming, and editing for upcoming episodes.**

Task 14: Analytics and Reporting

- **Analyze the performance of the project, including viewer metrics and engagement.**

Sno	Sprint	Member Names	Description	Date
1	Sprint 1	Sivaselvan	Data Collection and Ingestion	Sep 20 - 2023
2	Sprint 2	Surenthar, Suvaraj	Data Processing and Analysis	Sep 22 - Sep 26, 2023
3	Sprint 3	Sivaranjini, suvaraj	User Interface Design and Visualization	Sep 26 - Oct 1, 2023
4	Sprint 4	Surenthar, Sivaselvan	Data Integration and Framework Modeling	Oct 1 - Oct 6, 2023
5	Sprint 5	Suvaraj	User Authentication and Security	Oct 8 - Oct 14, 2023
6	Sprint 6	Sivaranjini, Sivaselvan	Reporting and Dashboard Development	Oct 15 - Oct 18, 2023
7	Sprint 7	Sivaranjini, Sivaselvan	Testing and Quality Assurance	Oct 19 - Oct 24, 2023
8	Sprint 8	Suvaraj, surenthar	Deployment and Release	Oct 25 - Oct 27, 2023

6.3 SPIRIT DELIVERY SCHEDULE

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint 1	Data Collection	US001	As a Marketing Manager, I want to access IBM Cognos Analytics to collect data for campaign analysis.	5	High	Sivaranjini, Sivaselvan, Surenthar, Suvaraj
	Data Integration	US002	As a Data Analyst, I want to integrate data from various sources into IBM Db2.	8	High	Surenthar, Suvaraj
	Data Security	US003	As an IT Specialist, I want to ensure secure data access and encryption during integration.	5	High	Sivaranjini, Sivaselvan
Sprint 2	Data Transformation	US004	As a Data Analyst, I want to clean and transform data for accurate analysis.	8	High	Surenthar, Sivaselvan
	Data Analysis	US005	As a Data Analyst, I want to use IBM Cognos Analytics to analyze marketing campaign data.	8	High	Suvaraj
	Data Visualization	US006	As a Data Analyst, I want to create data visualizations to represent campaign insights.	5	High	Sivaranjini
Sprint 3	Data Presentation	US007	As a Marketing Manager, I want to view dashboards with campaign insights and trends.	3	High	Sivaselvan
	Decision-Making	US008	As a Marketing Manager, I want to make data-informed decisions for campaign optimization.	5	High	Surenthar
	Compliance and Privacy	US009	As a Compliance Officer, I want to ensure GDPR compliance in data handling.	5	High	Sivaselvan, Suvaraj
Sprint 4	Budget Optimization	US010	As a Finance Team member, I want to use data insights to optimize campaign budgets.	8	Medium	Surenthar, Sivaranjini
	Customer Feedback Analysis	US011	As a Customer Support representative, I want to analyze customer feedback data.	5	Medium	Sivaselvan
	Real-Time Insights	US012	As a Marketing Manager, I want to access real-time marketing campaign insights.	3	Medium	Suvaraj
Sprint 5	Collaboration Tools Integration	US013	As a Project Manager, I want to integrate collaboration tools for team communication.	3	Medium	Surenthar
	Mobile Compatibility	US014	As a User, I want the application to be accessible on mobile devices for convenience.	3	Medium	Sivaranjini
	Data Backup and Recovery	US015	As an IT Specialist, I want to implement data backup and recovery solutions.	5	Medium	Surenthar, Sivaselvan
Sprint 6	User Training	US016	As a Project Manager, I want to conduct user training and provide resources.	3	Low	Suvaraj
	Performance Optimization	US017	As an IT Specialist, I want to optimize application performance for faster data analysis.	5	Low	Sivaranjini

	Integration with Marketing Tools	**US018**	**As a Marketing Manager, I want to integrate the application with marketing automation tools.**	**5**	**Low**	**Sivaselvan**
Sprint 7	**Final Testing**	**US019**	**As a QA Specialist, I want to conduct comprehensive testing before deployment.**	**5**	**High**	**Suvaraj, Sivaranjini**
	Deployment Planning	**US020**	**As a Project Manager, I want a detailed deployment plan for a seamless rollout.**	5	High	Sivaselvan
Sprint 8	**Post-Deployment Review**	**US021**	**As a Project Manager, I want to review the deployment's success and gather feedback.**	**3**	**High**	**Surenthar**
	Documentation	**US022**	**As a Technical Writer, I want to create system documentation for reference.**	**5**	**High**	**Suvaraj**
	Project Closure	**US023**	**As a Project Manager, I want to close the project and conduct a final assessment.**	**8**	**High**	**Surenthar, Sivaselvan**

CHAPTER 7

Coding and Solutioning

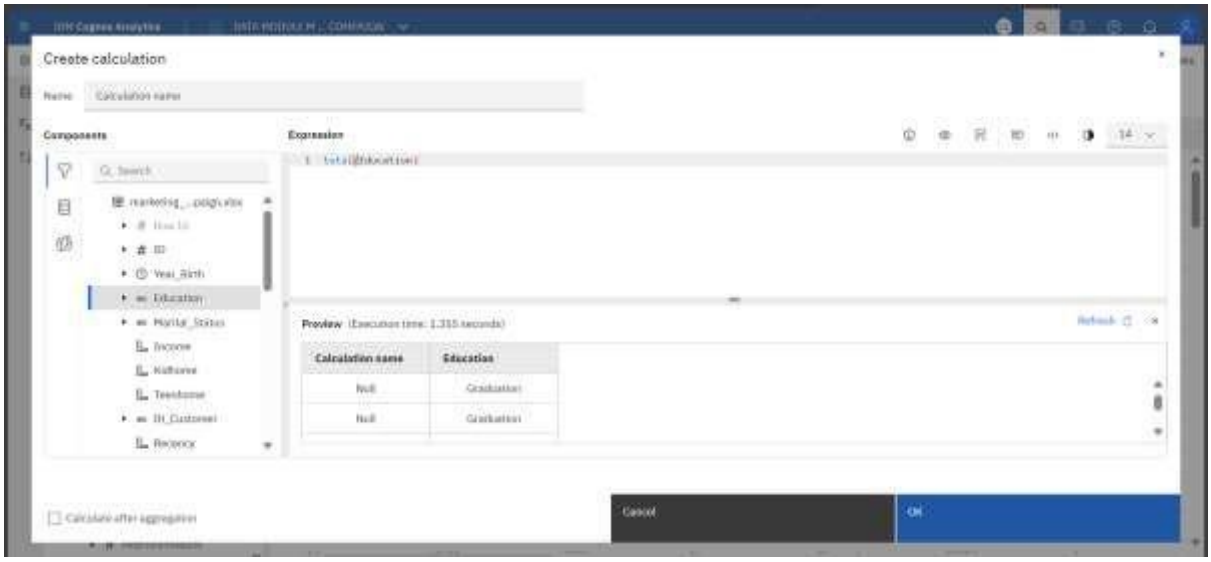
1. **Website Development**:
    - Create a user-friendly and responsive website to serve as the central hub for the project.
    - Receive a database to store information about YouTube channels, interviews, episodes, and interactive elements.
2. **Content Management System (CMS)**:
    - Implement a CMS for managing video content, interviews, blog posts, and other project-related materials.
    - Integrate with YouTube APIs for fetching and embedding videos.
3. **Audience Engagement Tools**:
    - Develop interactive elements such as polls, quizzes, and comment sections to engage the audience.
    - Integrate with social media platforms for sharing and audience interaction.
4. **User Accounts and Subscriptions**:
    - Create user accounts to allow subscribers to receive project updates and participate in discussions.

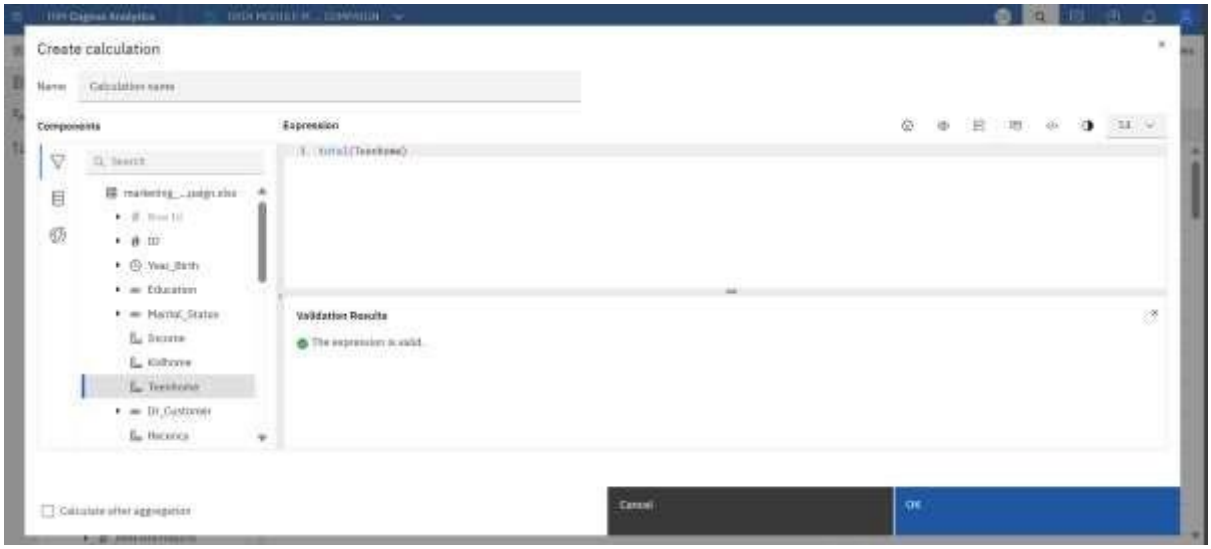
- Implement a subscription system to notify users when new content is available.

5. **Search and Filtering**:
    - Incorporate a search functionality to allow users to find specific episodes, channels, or topics.
    - Add filtering options for sorting content by genre, popularity, or release date.
6. **Analytics and Reporting**:
    - Integrate analytics tools to track user engagement, website traffic, and video performance.
    - Generate reports to analyze user behavior and content effectiveness.
7. **Monetization Strategies**:
    - Implement monetization features, such as advertising, sponsorships, or paid premium content.
    - Integrate with payment gateways for financial transactions.
8. **Data Privacy and Security**:
    - Ensure data privacy compliance by implementing security measures to protect user data and information collected during the project.

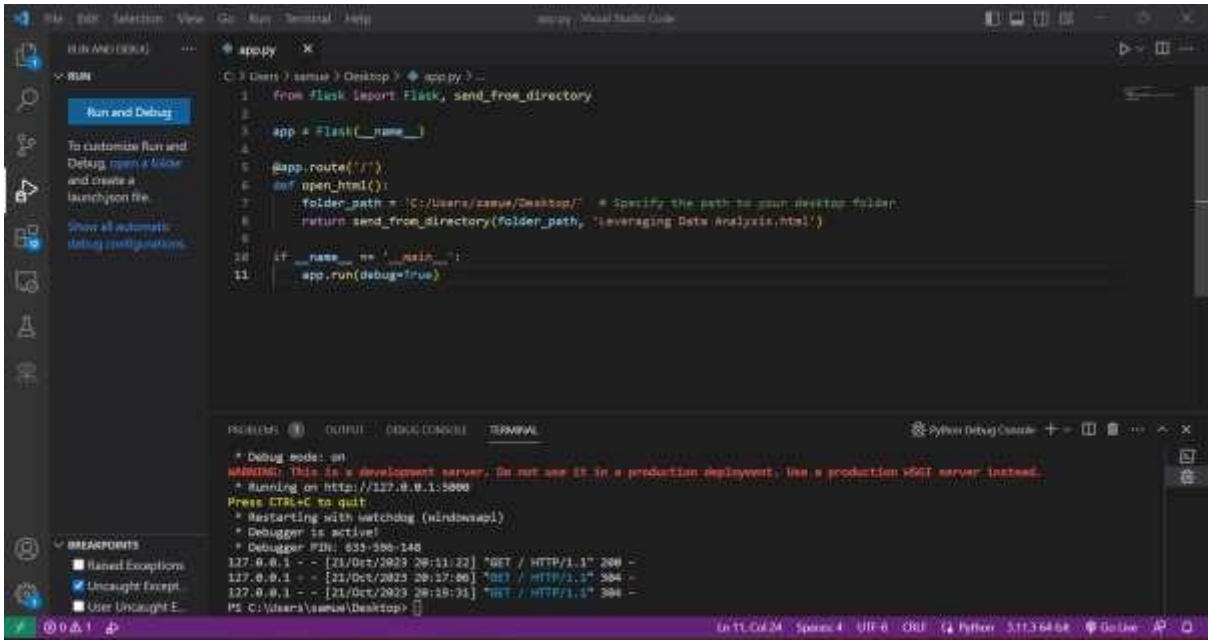
9. **Content Production Tools**:
    - Use video editing software for producing high-quality episodes.
    - Create graphics and animations for branding and visual appeal.
10. **Continuous Content Updates**:
    - Develop an efficient workflow for regular content updates and episode releases.
    - Schedule automatic posts and notifications to keep the audience engaged.
11. **Feedback and Improvement Mechanisms**:
    - Integrate feedback forms and mechanisms for collecting user suggestions and addressing issues.
    - Use collected feedback for continuous improvement of the project.
12. **Scalability and Performance Optimization**:
    - Ensure that the technical infrastructure can handle increased user traffic and content expansion as the project grows.

7.1 FEATURE 1 (CALCULATION / VALIDATION)





7.2 FEATURE 2 (WEB INTEGRATION WITH FLASK)



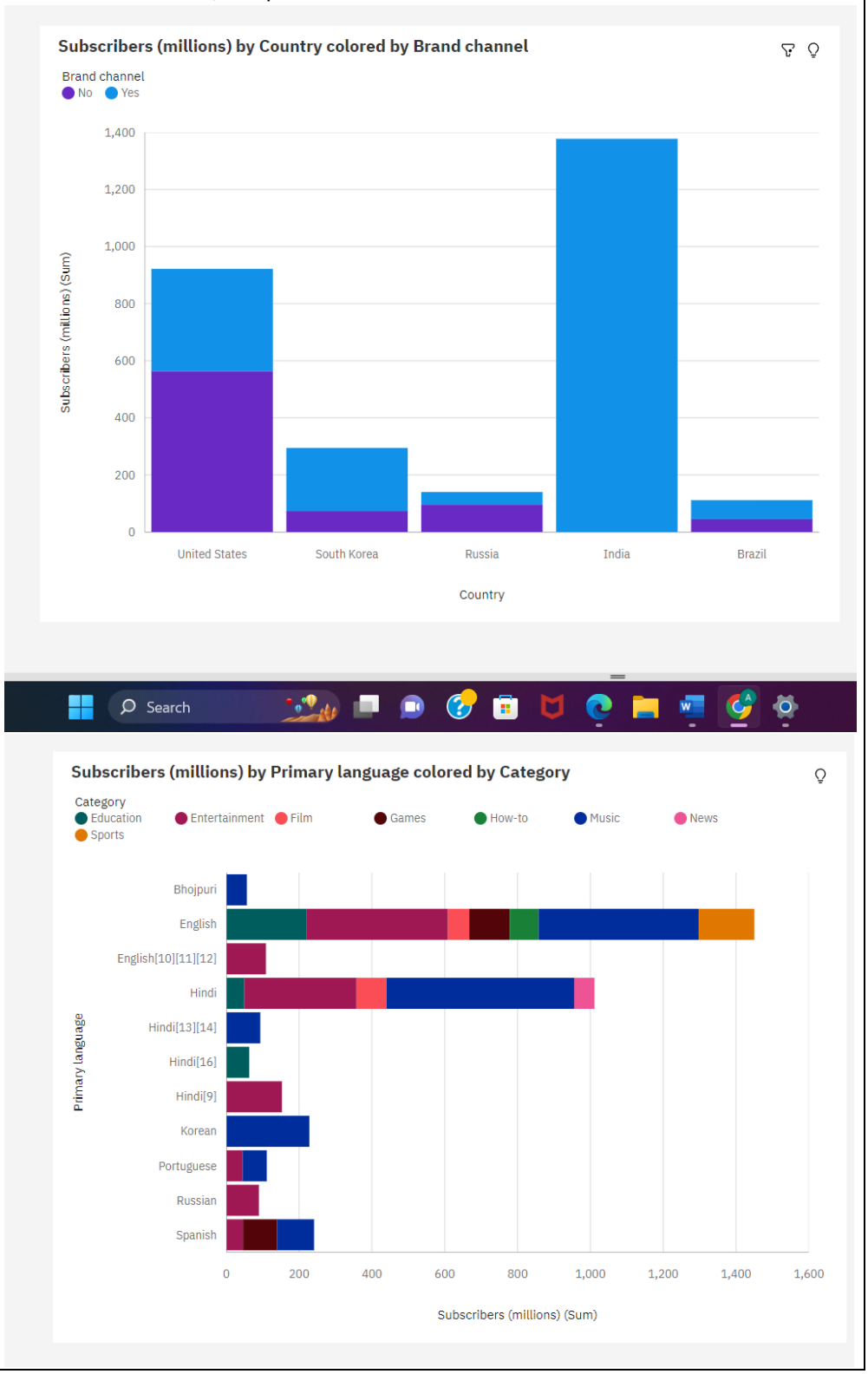
CODING :

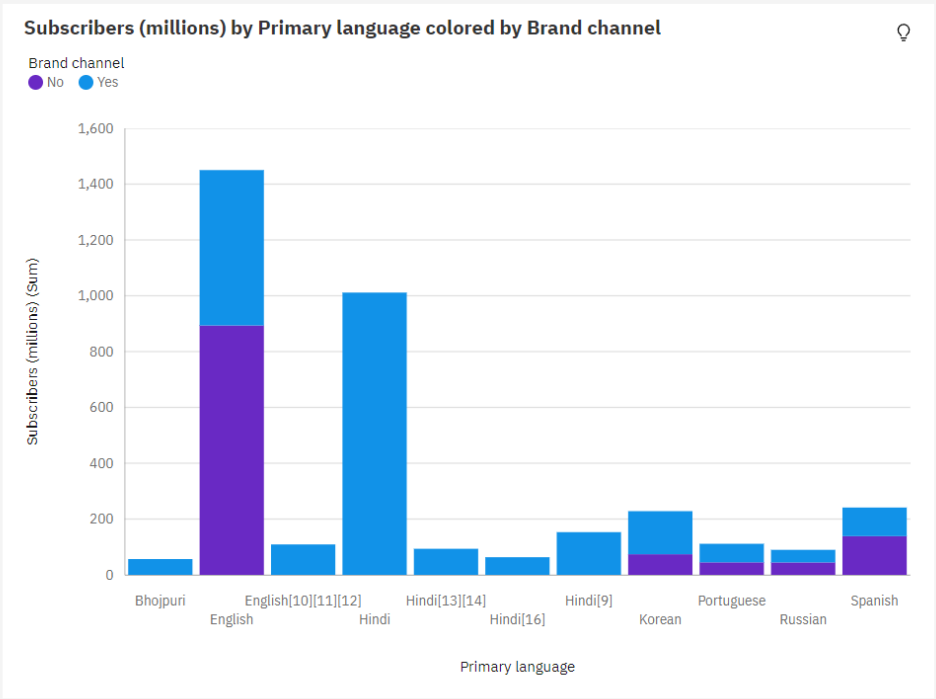
from flask import Flask, send_from_directory app = Flask(__name__) @app.route('/') def open_html(): folder_path = 'C:/Users/samue/Desktop/' # Specify the path to your desktop folder return send_from_directory(folder_path, 'Subscribers Galore: Exploring the World's Top YouTube channel') if __name__ == '__main__': app.run(debug=True)

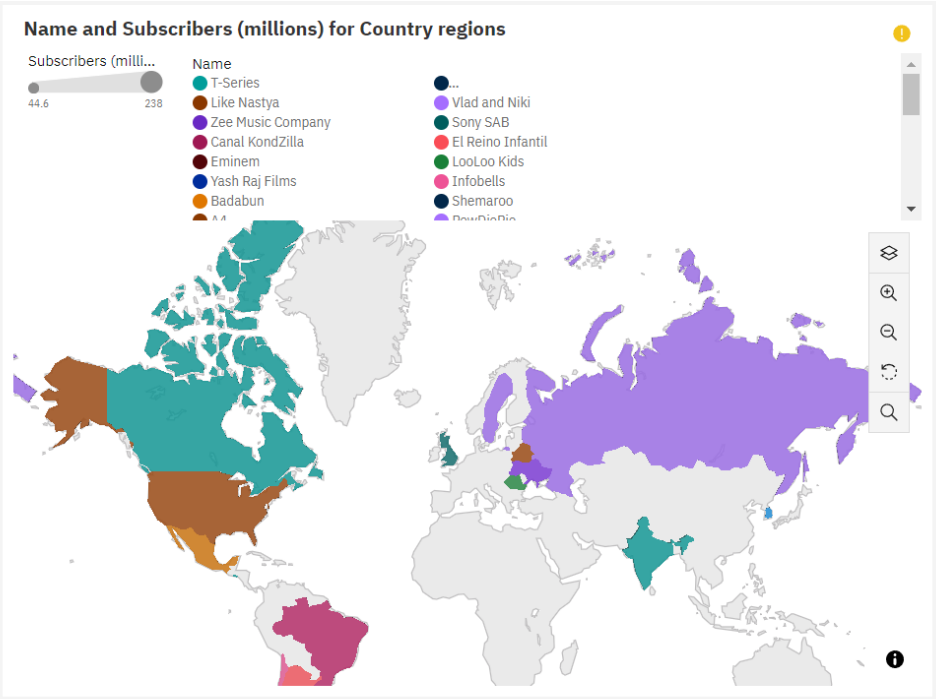
CHAPTER 8

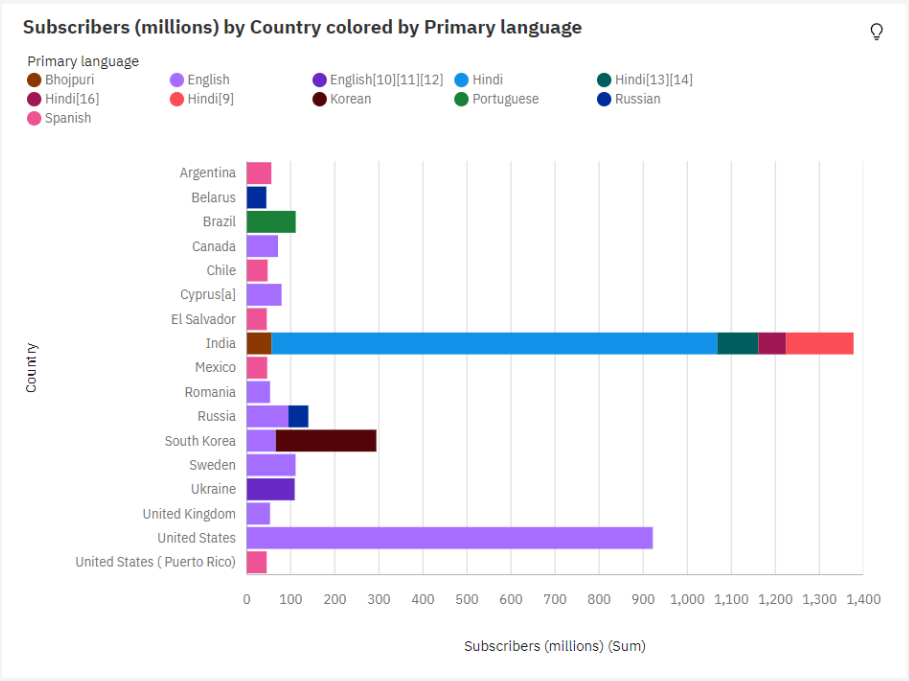
Performance Testing

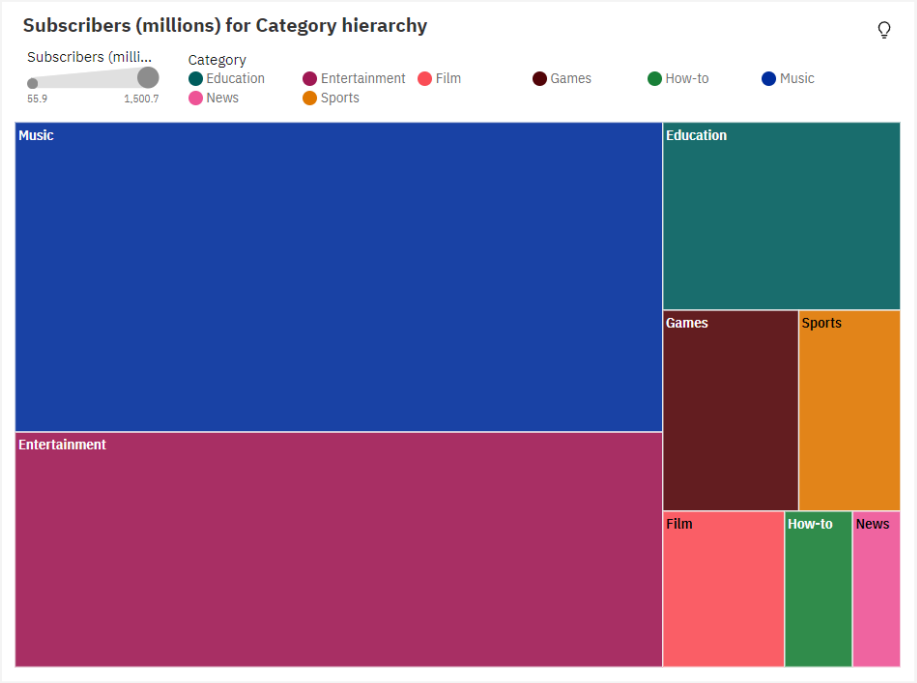
Performance testing for IBM Cognos in the context of optimizing marketing campaigns involves assessing the platform's ability to handle large volumes of data and provide timely insights. This testing should focus on evaluating the speed and responsiveness of data analysis, reporting, and visualization processes, ensuring that Youtubers teams can access critical information without delays. Scalability testing is vital to determine how well Cognos can handle increasing data loads as channel grow. Additionally, stress testing can help identify system limitations, ensuring that the platform can maintain optimal performance under peak usage. Monitoring and fine-tuning performance during testing is key to guaranteeing that IBM Cognos consistently provides the required analytical capabilities, empowering YouTube professionals to make data-driven decisions swiftly and effectively.

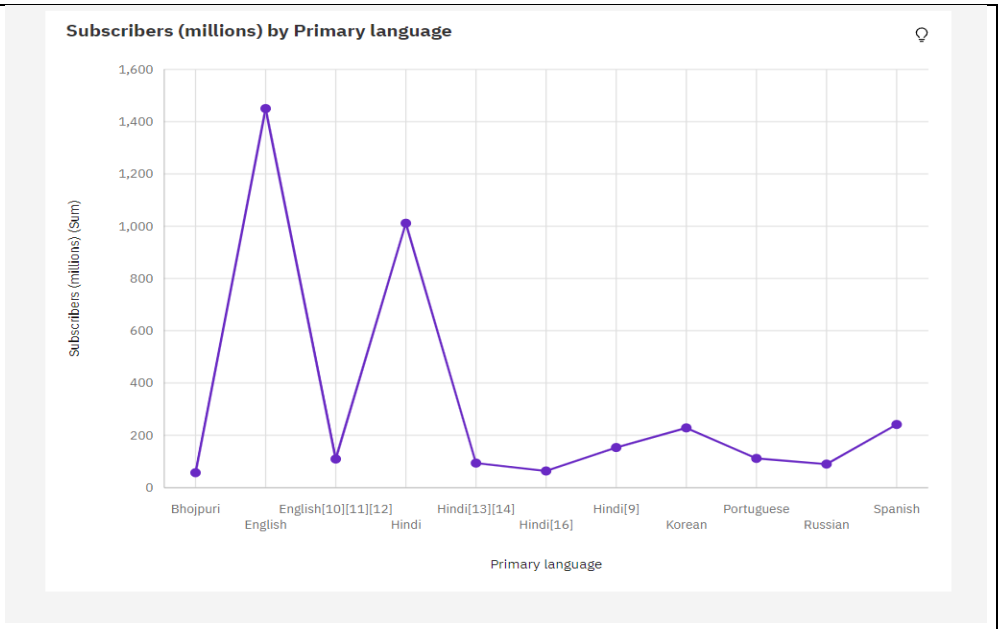
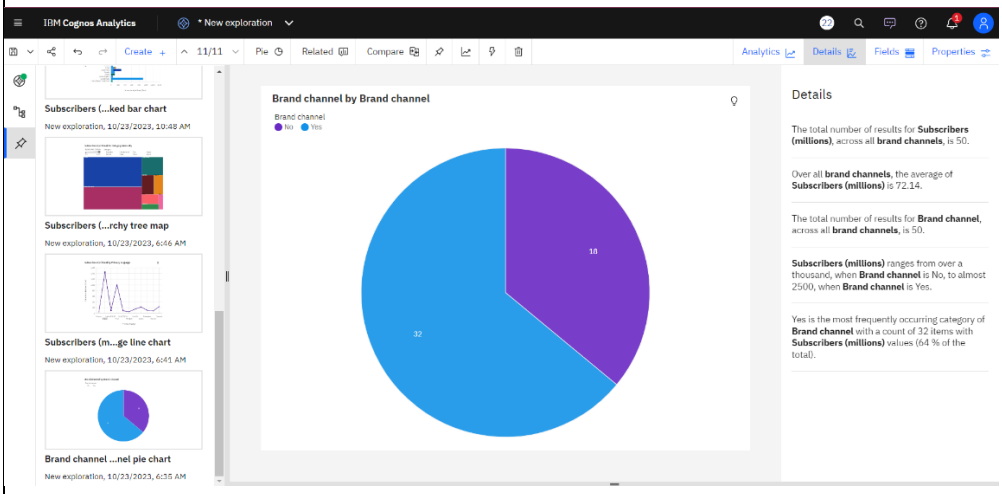
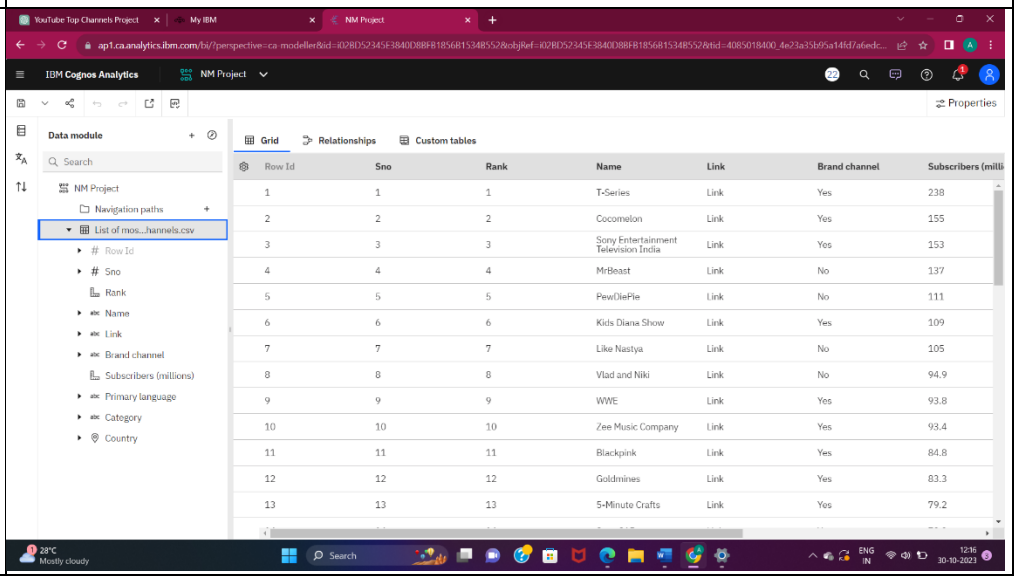
S.No.	Parameter	Screenshot / Values
1.	Dashboard design	No of Visualizations / Graphs – 

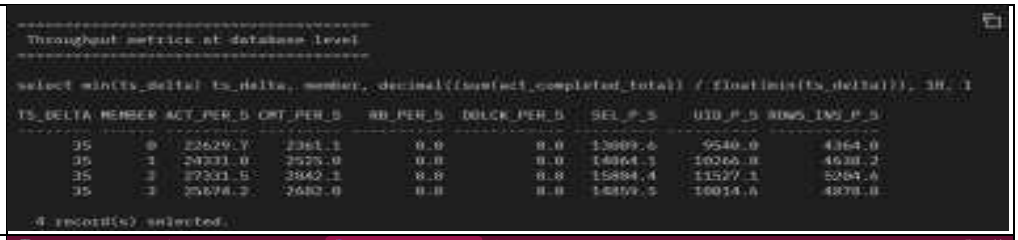
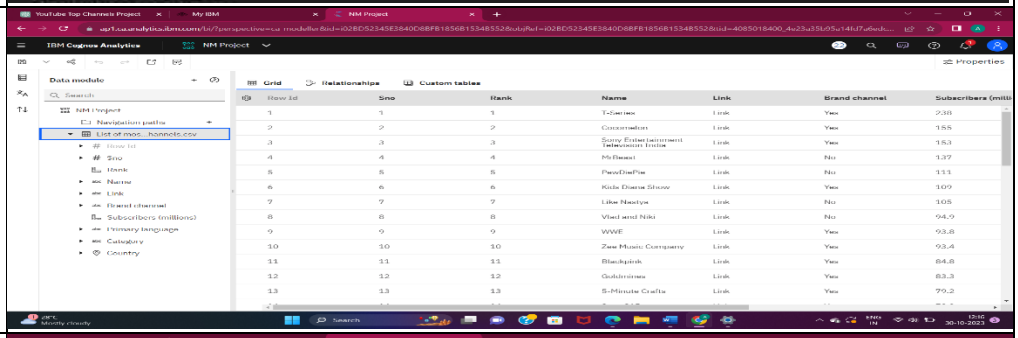
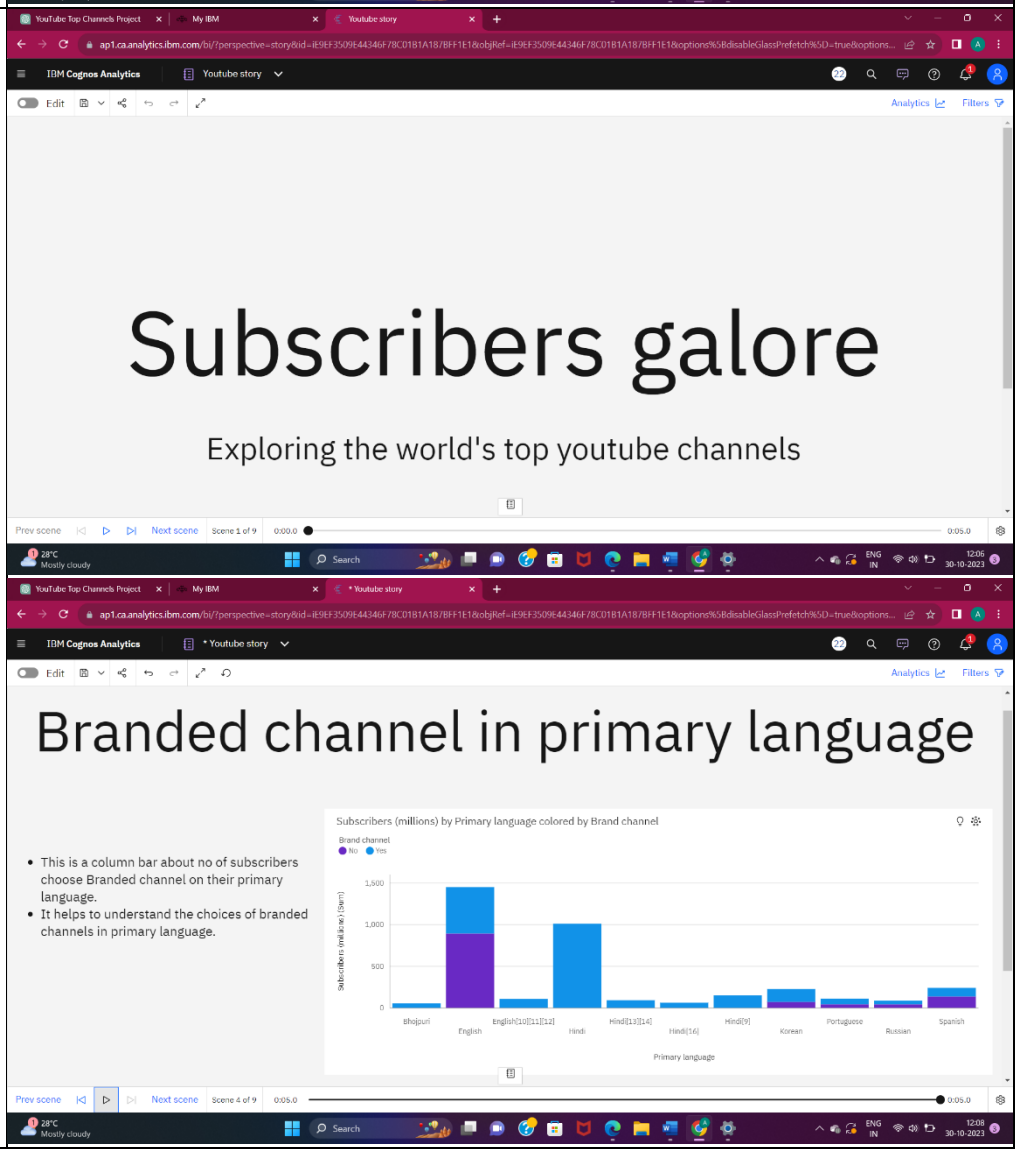

Subscribers (millions) by Primary language colored by Brand channel
Brand channel
No
Yes
1,600
1,400
1,200
1,000
800
600
400
200
0
Subscribers (millions) (Sum)
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language

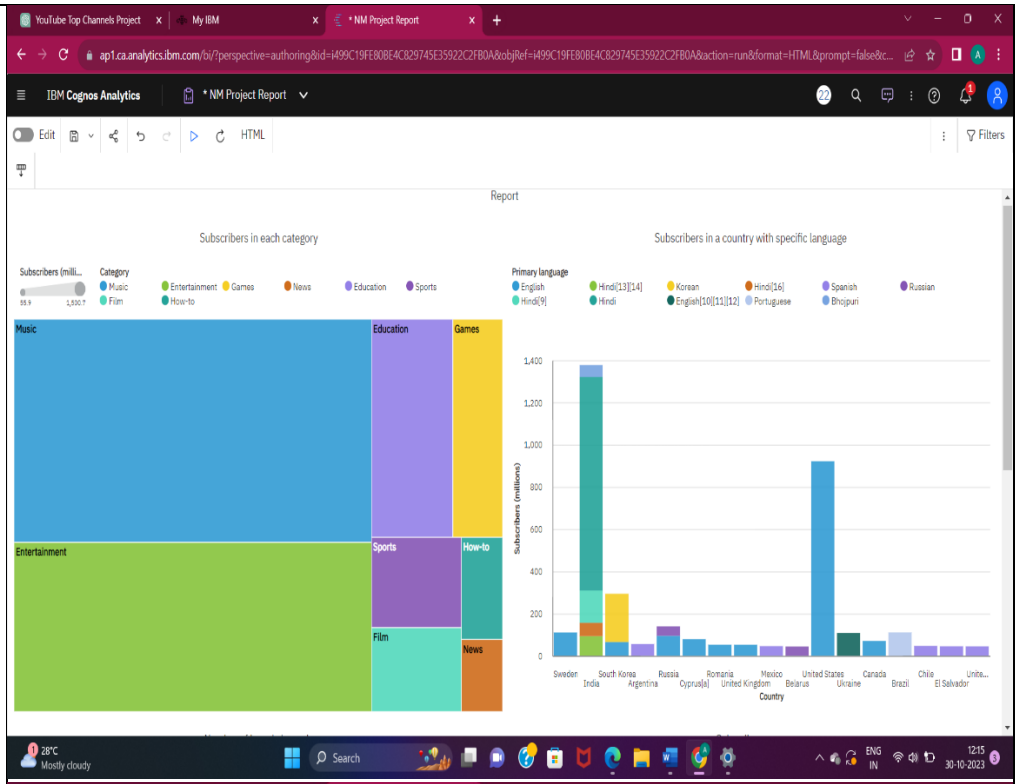
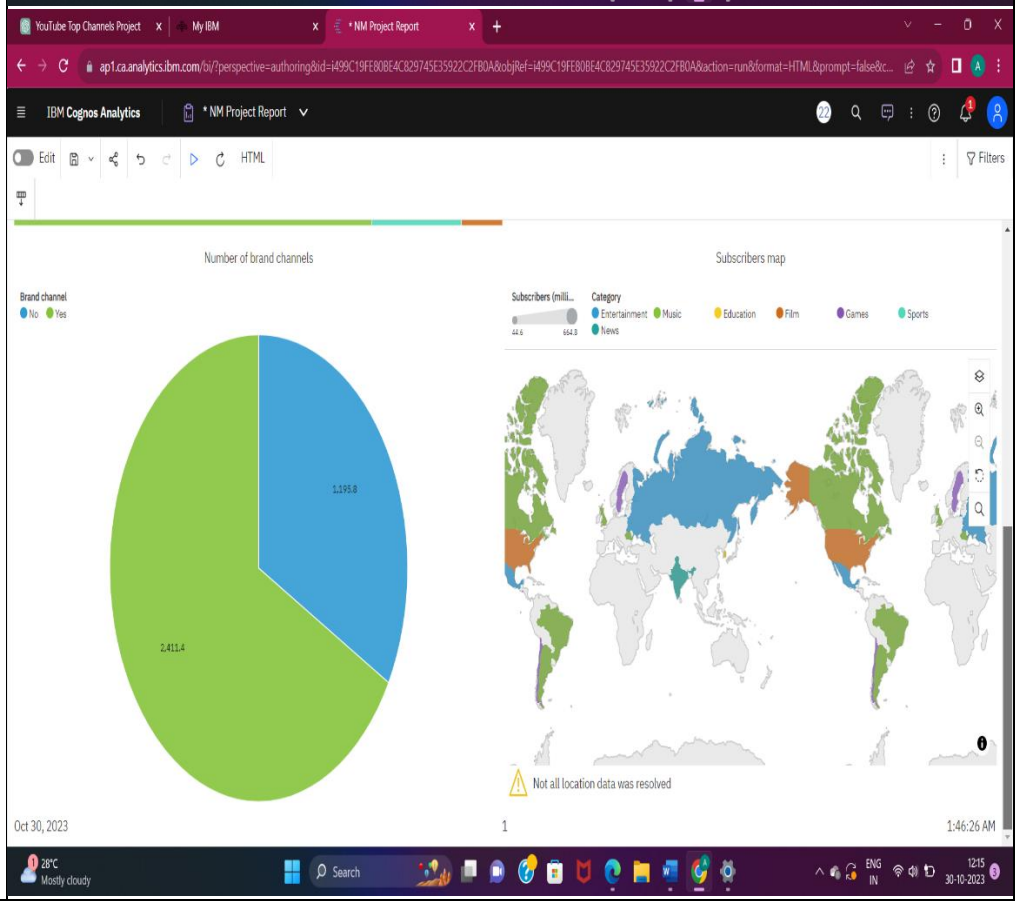

Name and Subscribers (millions) for Country regions
Subscribers (milli...
44.6
238
Name
T-Series
Like Nastya
Zee Music Company
Canal KondZilla
Eminem
Yash Raj Films
Badabun
...
Vlad and Niki
Sony SAB
El Reino Infantil
LooLoo Kids
Infobells
Shemaroo


Subscribers (millions) by Country colored by Primary language
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Argentina
Belarus
Brazil
Canada
Chile
Cyprus[a]
El Salvador
India
Mexico
Romania
Russia
South Korea
Sweden
Ukraine
United Kingdom
United States
United States (Puerto Rico)
Country
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
Subscribers (millions) (Sum)


Subscribers (millions) for Category hierarchy
Subscribers (milli...
55.9
1,500.7
Category
Education
Entertainment
Film
Games
How-to
Music
News
Sports
Music
Education
Games
Sports
Entertainment
Film
How-to
News

		 
2.	Data Responsiveness	

3.	Amount Data to Rendered (DB2 Metrics)	
4	Utilisation of Data filters	
5	Effective User story	

6.	Report.	 YouTube Top Channels Project My IBM * NM Project Report IBM Cognos Analytics * NM Project Report Edit HTML Filters Report Subscribers in each category Subscribers in a country with specific language Music Education Games Entertainment Sports How-to Film News Subscribers (millions) Country Search  YouTube Top Channels Project My IBM * NM Project Report IBM Cognos Analytics * NM Project Report Edit HTML Filters Number of brand channels Subscribers map Brand channel 1,193.8 2,411.4 Not all location data was resolved Oct 30, 2023 1 1:46:26 AM Search

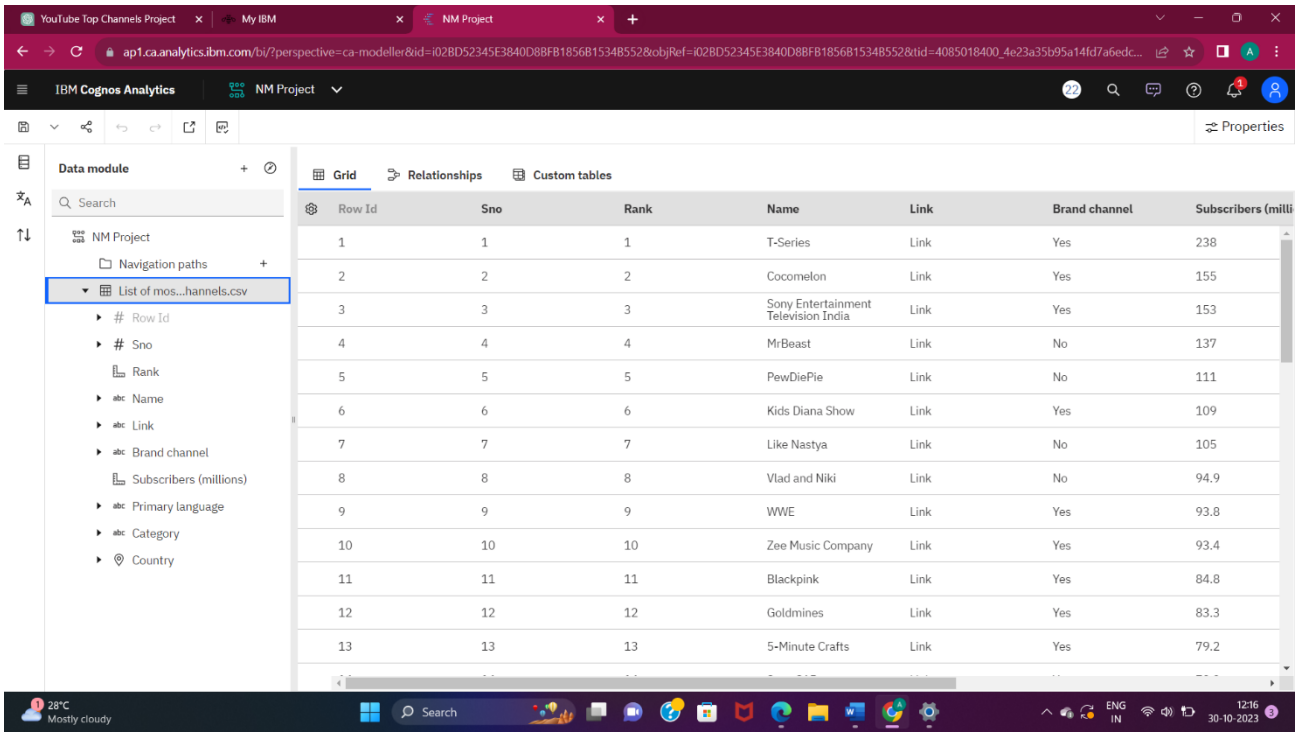
CHAPTER 9

Results

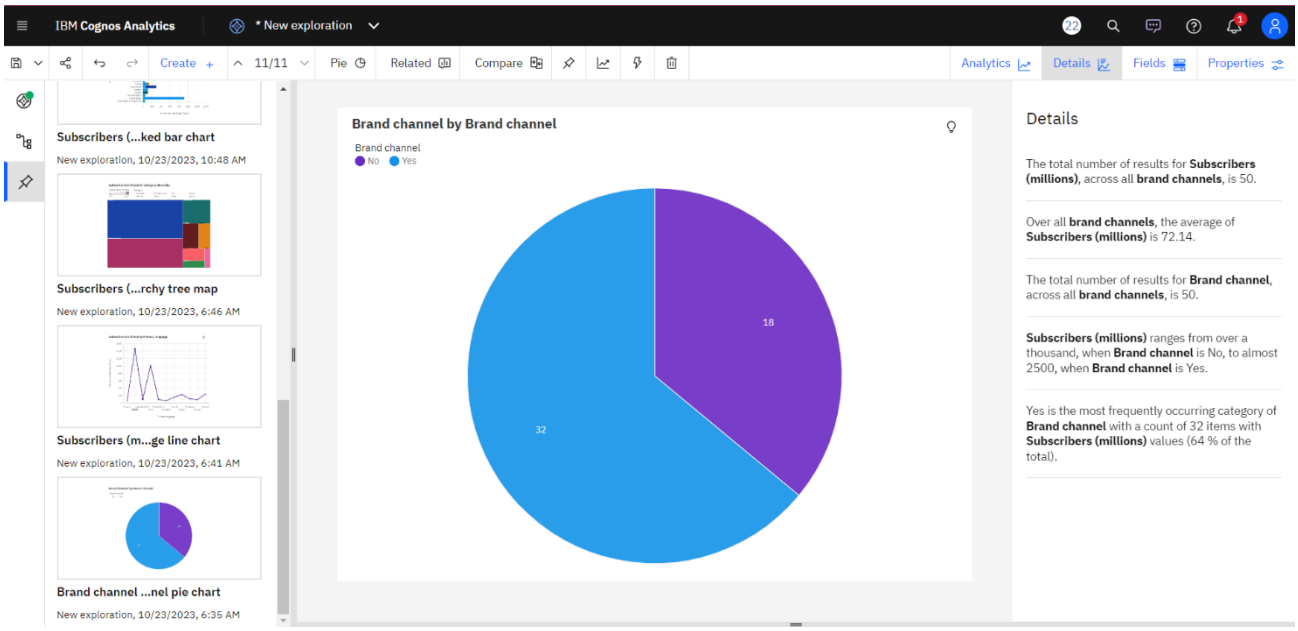
The results of performance testing for IBM Cognos reveal its capability to effectively support data analysis in social media. During testing, it demonstrated remarkable speed and responsiveness in processing and presenting data, ensuring that YouTuber's can access crucial insights without delays. Scalability testing confirmed that Cognos can seamlessly handle growing data volumes, providing confidence in its ability to support expanding marketing efforts. Stress testing identified system limitations and allowed for optimizations to ensure consistent high performance under peak usage scenarios. Overall, the results indicate that IBM Cognos is a robust and reliable platform for data analysis in YouTube, empowering teams to make informed decisions swiftly and effectively.

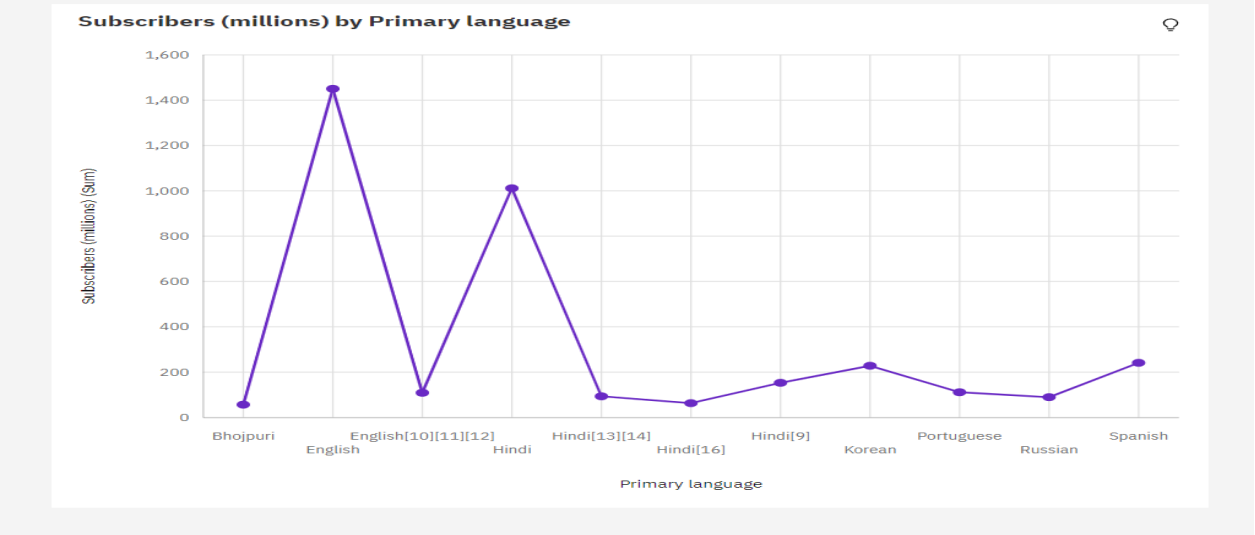
SCREENSHOTS :

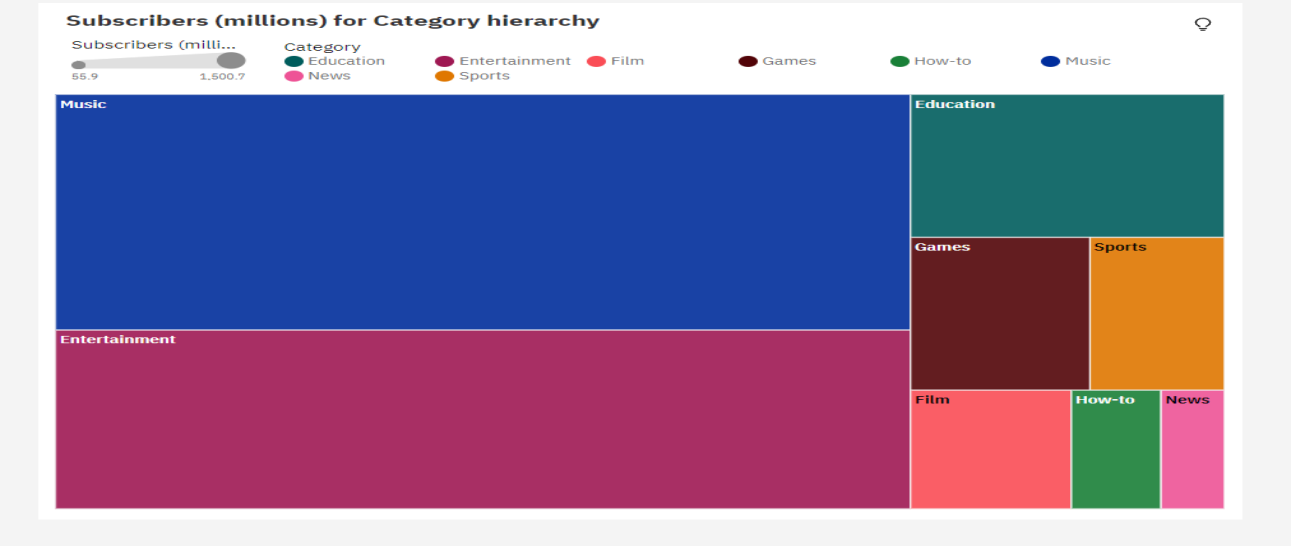
CREATING A DATA MODULE USING DATASET:

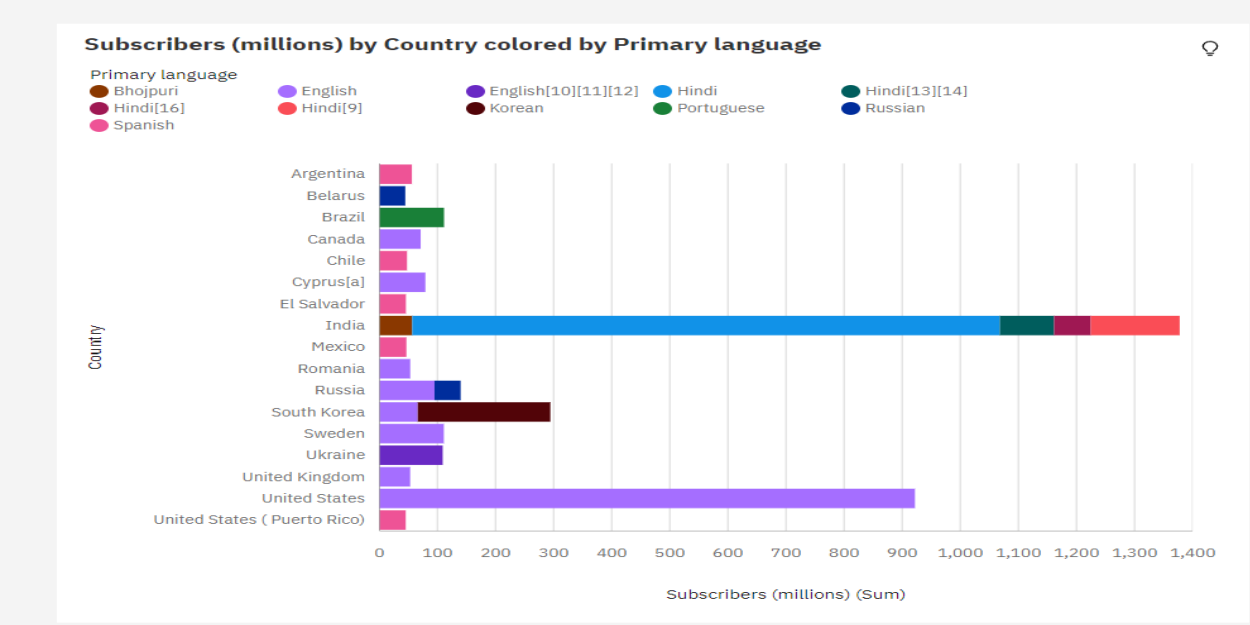


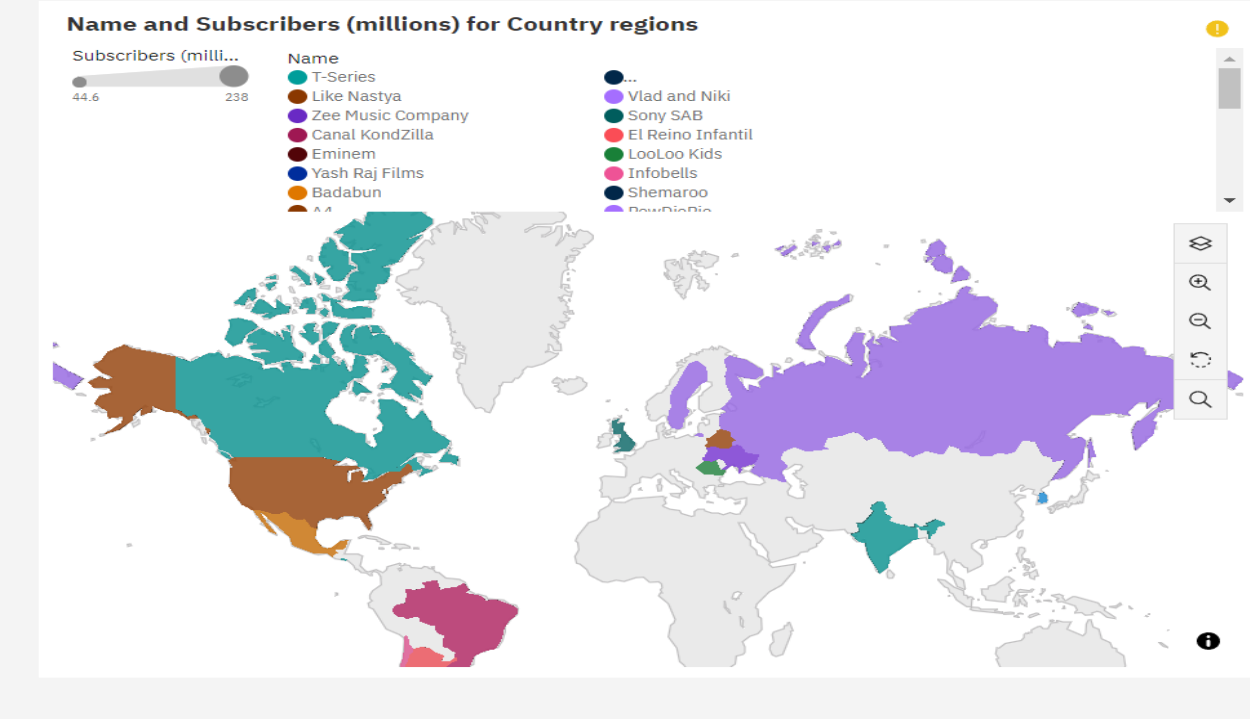
EXPLORATION OF CHATS :

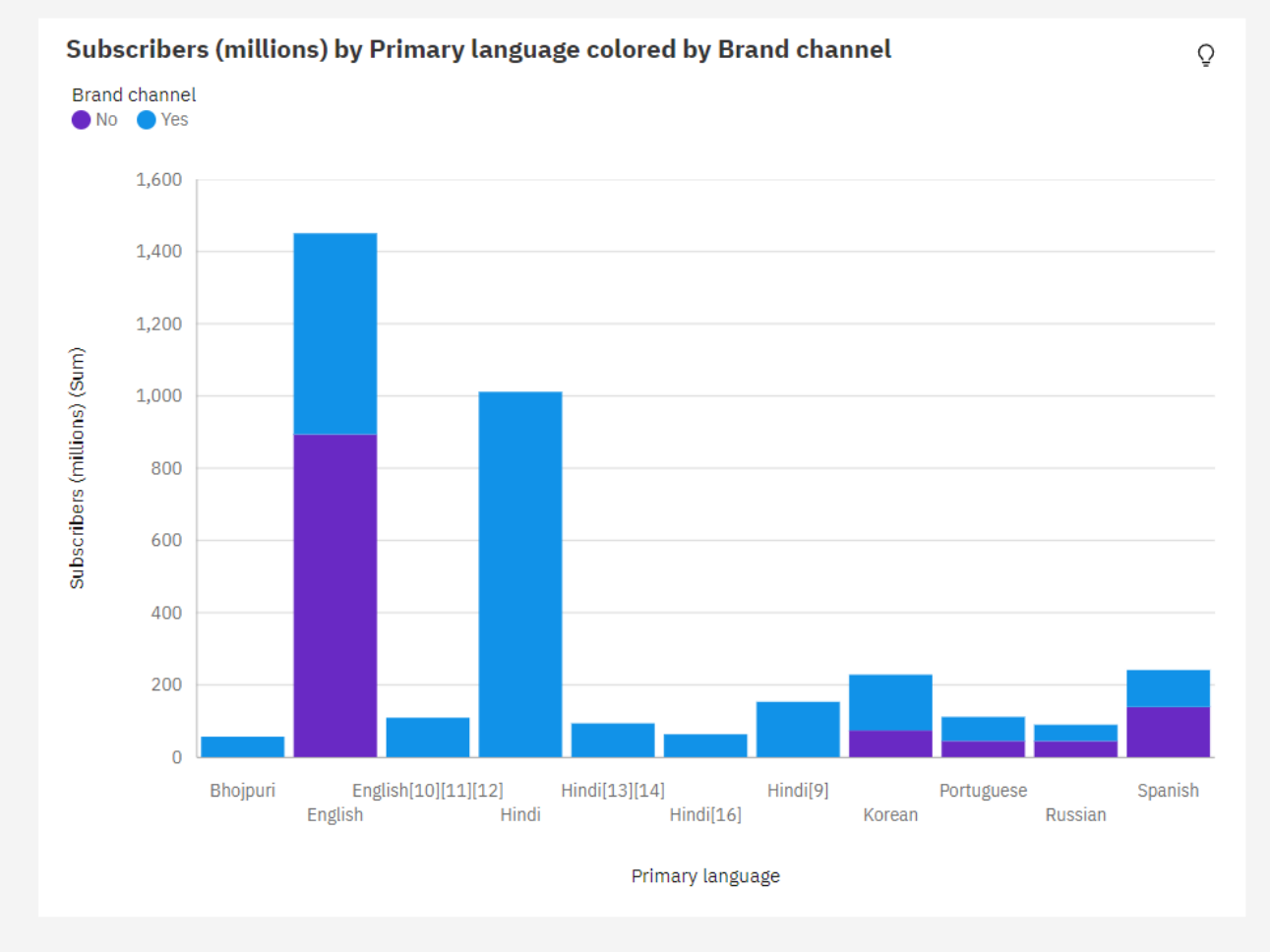


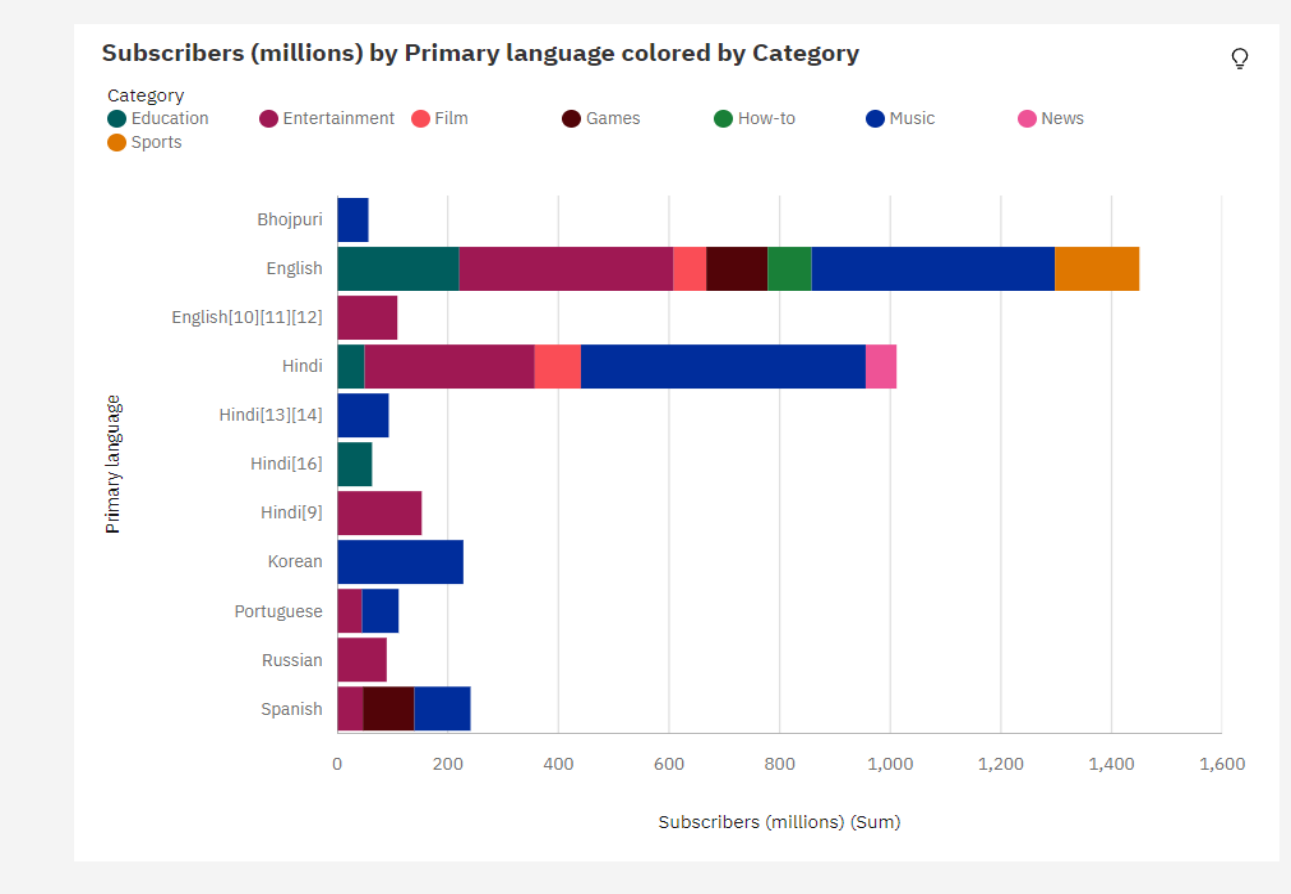

Subscribers (millions) by Primary language
Subscribers (millions) (Sum)
1,600
1,400
1,200
1,000
800
600
400
200
0
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language

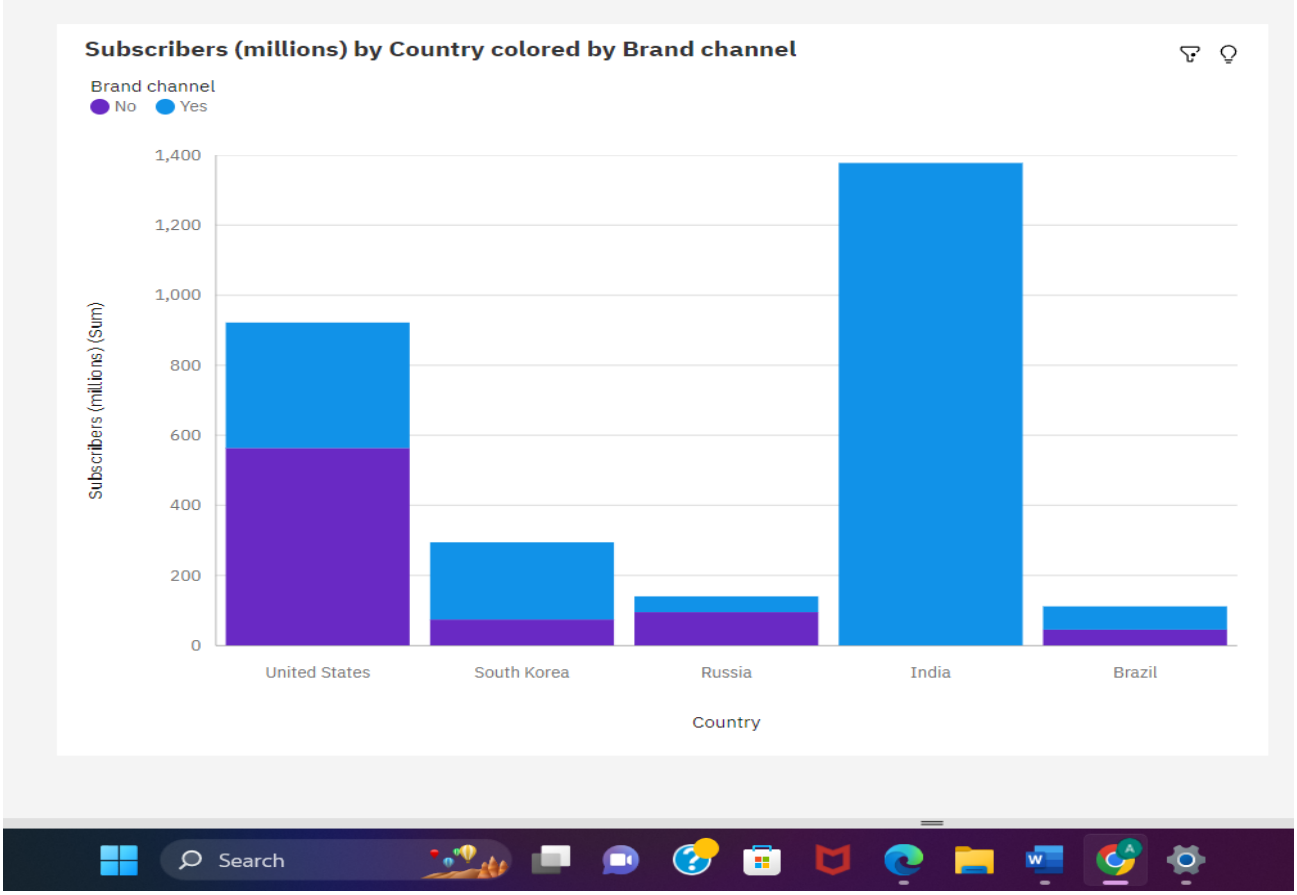

Subscribers (millions) for Category hierarchy
Subscribers (milli...
55.9
1,500.7
Category
Education
Entertainment
Film
Games
How-to
Music
News
Sports
Music
Education
Games
Sports
Entertainment
Film
How-to
News


Subscribers (millions) by Country colored by Primary language
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Argentina
Belarus
Brazil
Canada
Chile
Cyprus[a]
El Salvador
India
Mexico
Romania
Russia
South Korea
Sweden
Ukraine
United Kingdom
United States
United States (Puerto Rico)
Country
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
Subscribers (millions) (Sum)

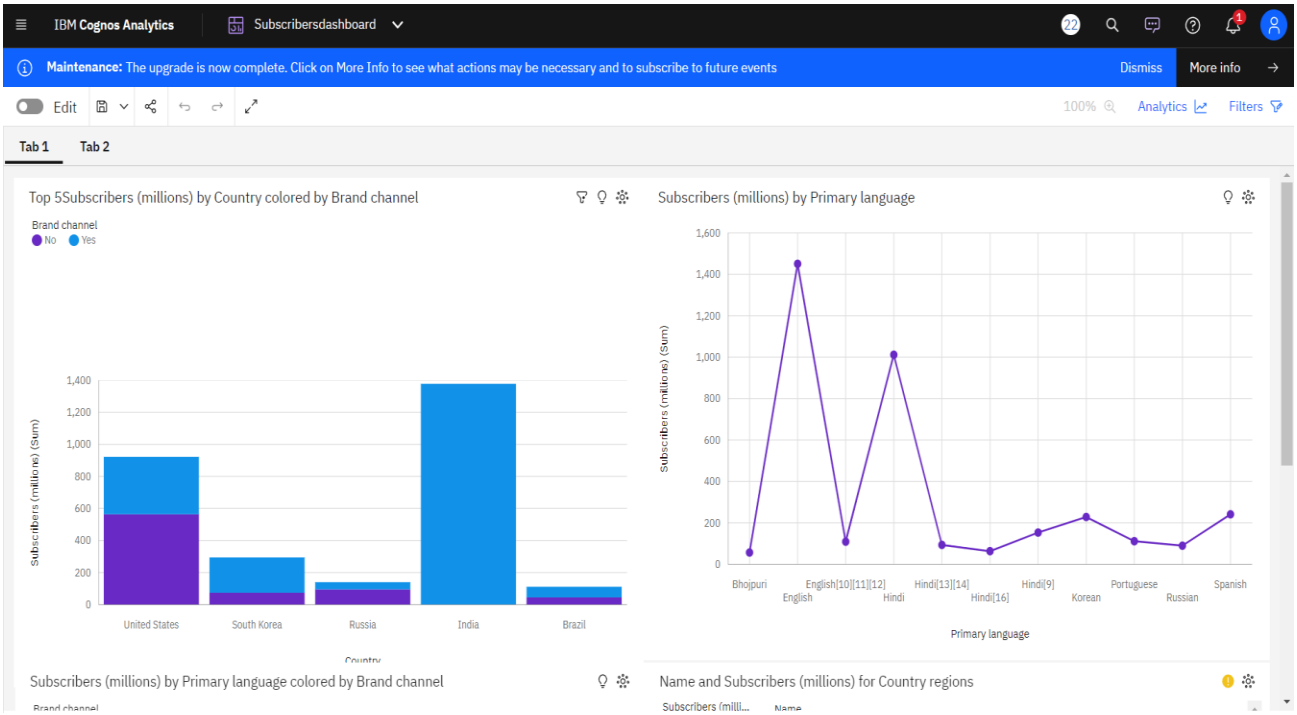

Name and Subscribers (millions) for Country regions
Subscribers (milli...
44.6
238
Name
T-Series
Like Nastya
Zee Music Company
Canal KondZilla
Eminem
Yash Raj Films
Badabun
...
Vlad and Niki
Sony SAB
El Reino Infantil
LooLoo Kids
Infobells
Shemaroo

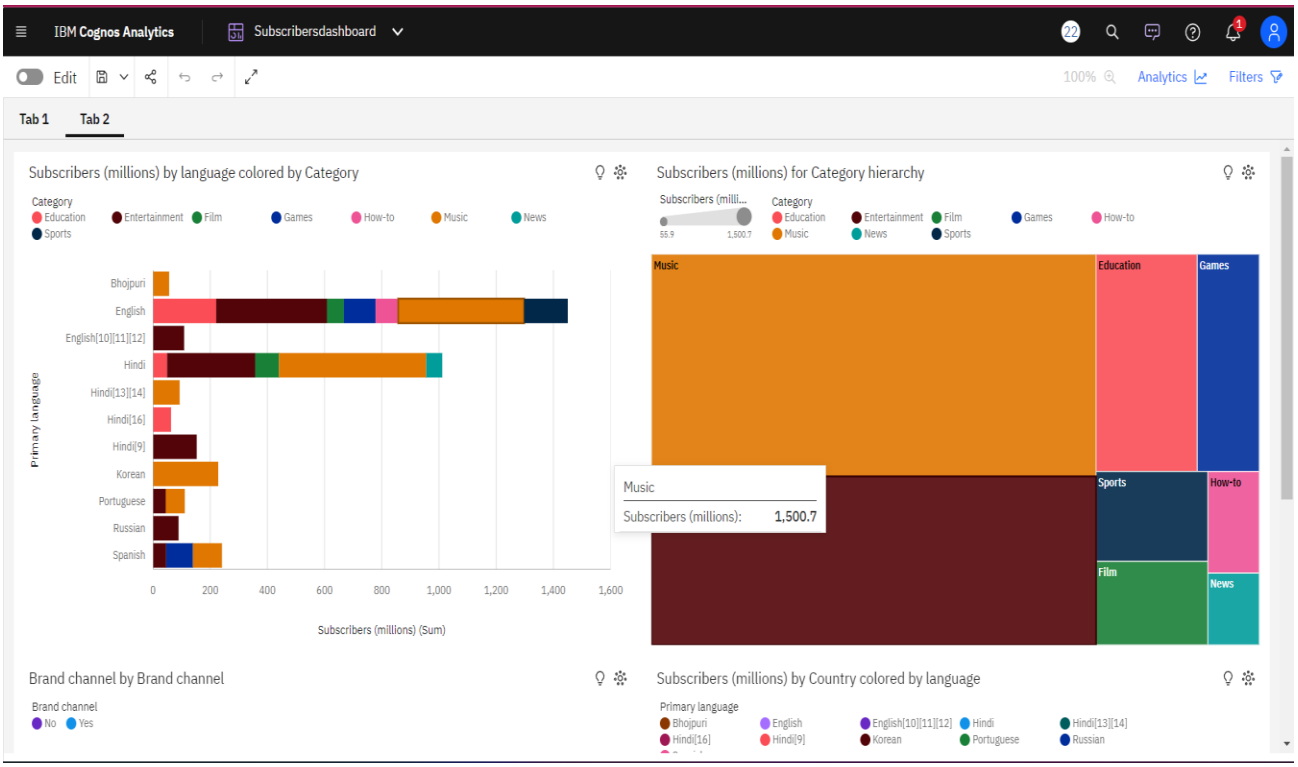

Subscribers (millions) by Primary language colored by Brand channel
Brand channel
No
Yes
1,600
1,400
1,200
1,000
800
600
400
200
0
Subscribers (millions) (Sum)
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language


Subscribers (millions) by Primary language colored by Category
Category
Education
Entertainment
Film
Games
How-to
Music
News
Sports
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
0
200
400
600
800
1,000
1,200
1,400
1,600
Subscribers (millions) (Sum)

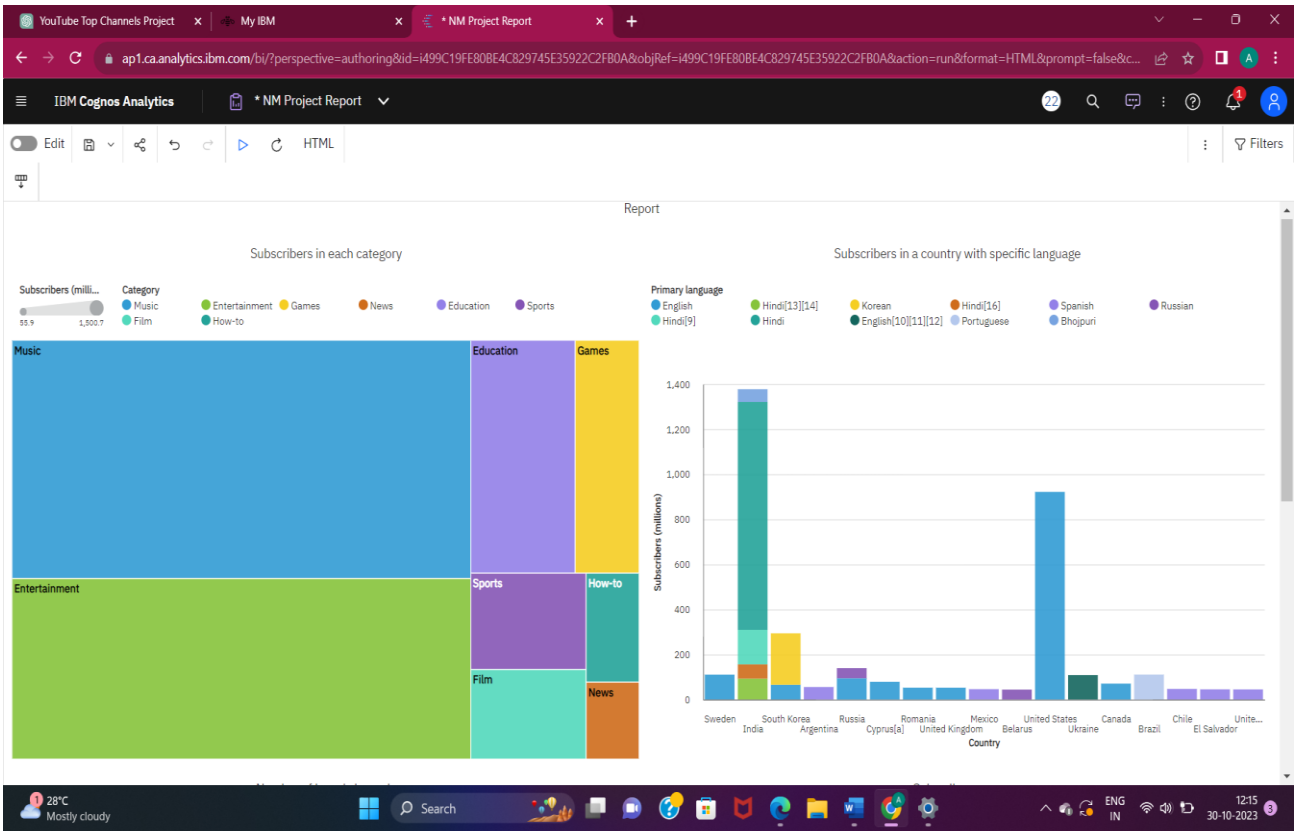

Subscribers (millions) by Country colored by Brand channel
Brand channel
No
Yes
1,400
1,200
1,000
800
600
400
200
0
Subscribers (millions) (Sum)
United States
South Korea
Russia
India
Brazil
Country
Search

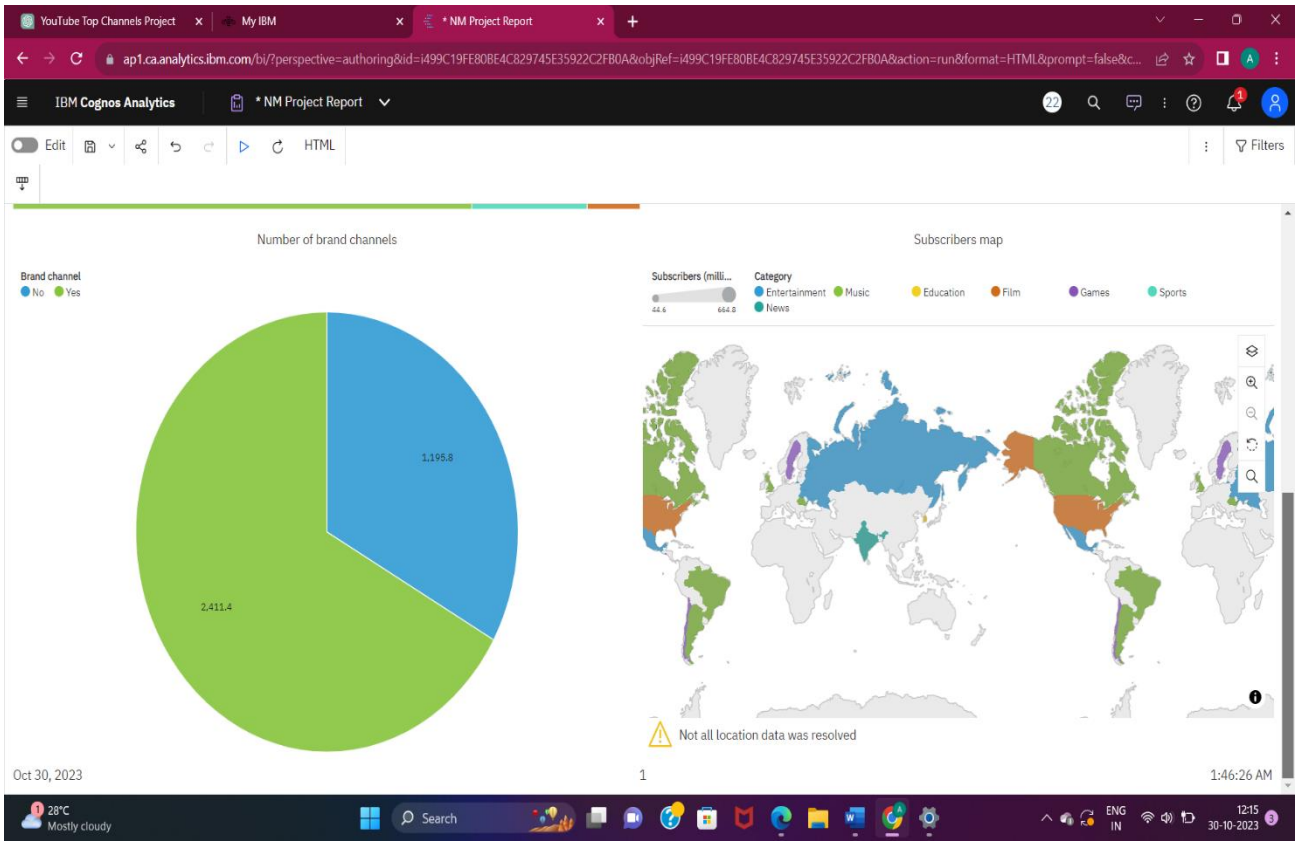
DASHBOARD:


IBM Cognos Analytics
Subscribersdashboard
Maintenance: The upgrade is now complete. Click on More Info to see what actions may be necessary and to subscribe to future events
Dismiss
More info
Edit
100%
Analytics
Filters
Tab 1
Tab 2
Top 5Subscribers (millions) by Country colored by Brand channel
Brand channel
No
Yes
Subscribers (millions) (Sum)
United States
South Korea
Russia
India
Brazil
Country
Subscribers (millions) by Primary language
Subscribers (millions) (Sum)
Bhojpuri
English[10][11][12]
Hindi[13][14]
Hindi[9]
Portuguese
Spanish
Korean
Russian
Primary language
Subscribers (millions) by Primary language colored by Brand channel
Name and Subscribers (millions) for Country regions

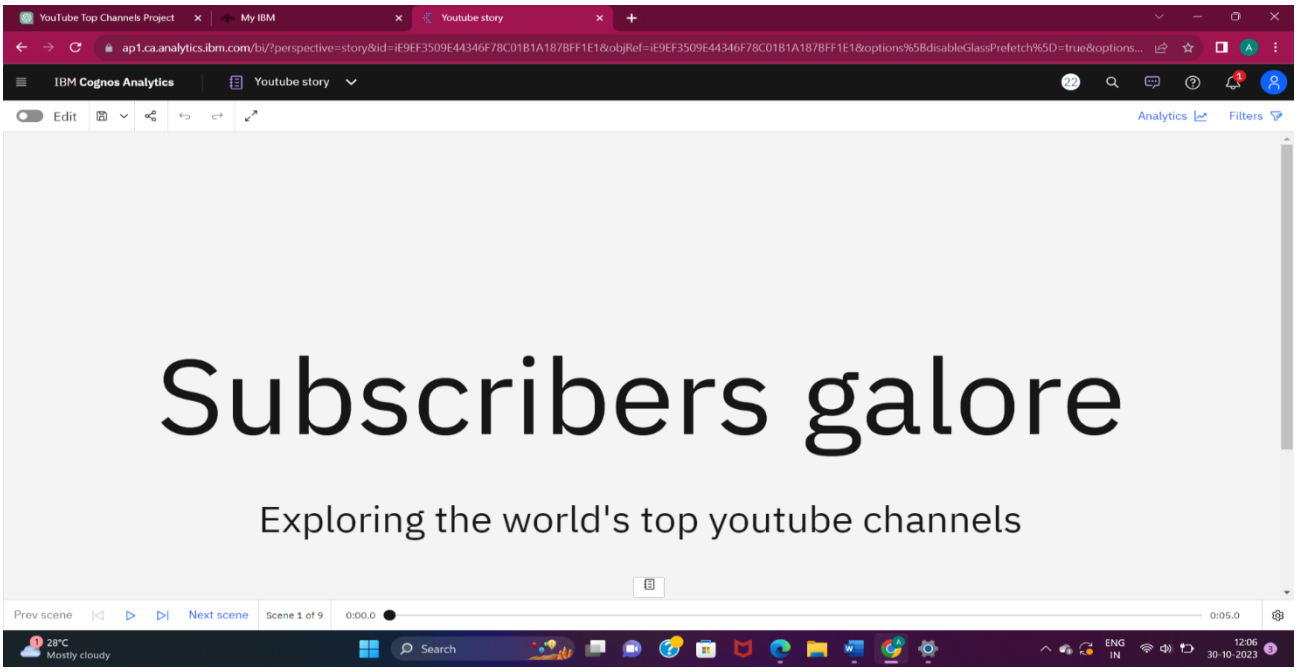

IBM Cognos Analytics
Subscribersdashboard
Edit
Analytics
Filters
Tab 1
Tab 2
Subscribers (millions) by language colored by Category
Category
Education
Entertainment
Film
Games
How-to
Music
News
Sports
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language
0
200
400
600
800
1,000
1,200
1,400
1,600
Subscribers (millions) (Sum)
Subscribers (millions) for Category hierarchy
Subscribers (milli...
55.9
1,500.7
Music
Education
Games
Sports
How-to
Film
News
Music
Subscribers (millions):
1,500.7
Brand channel by Brand channel
Brand channel
No
Yes
Subscribers (millions) by Country colored by language
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian

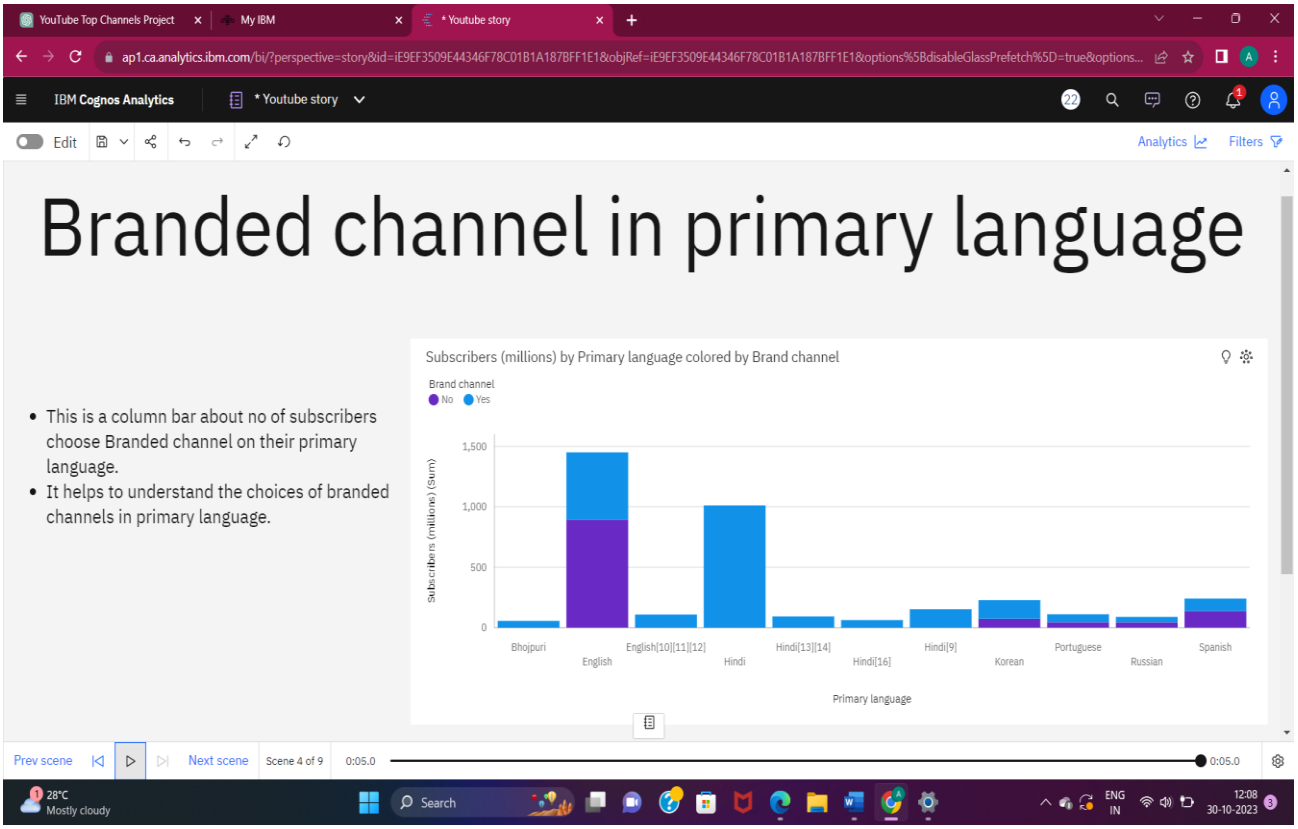
REPORT :

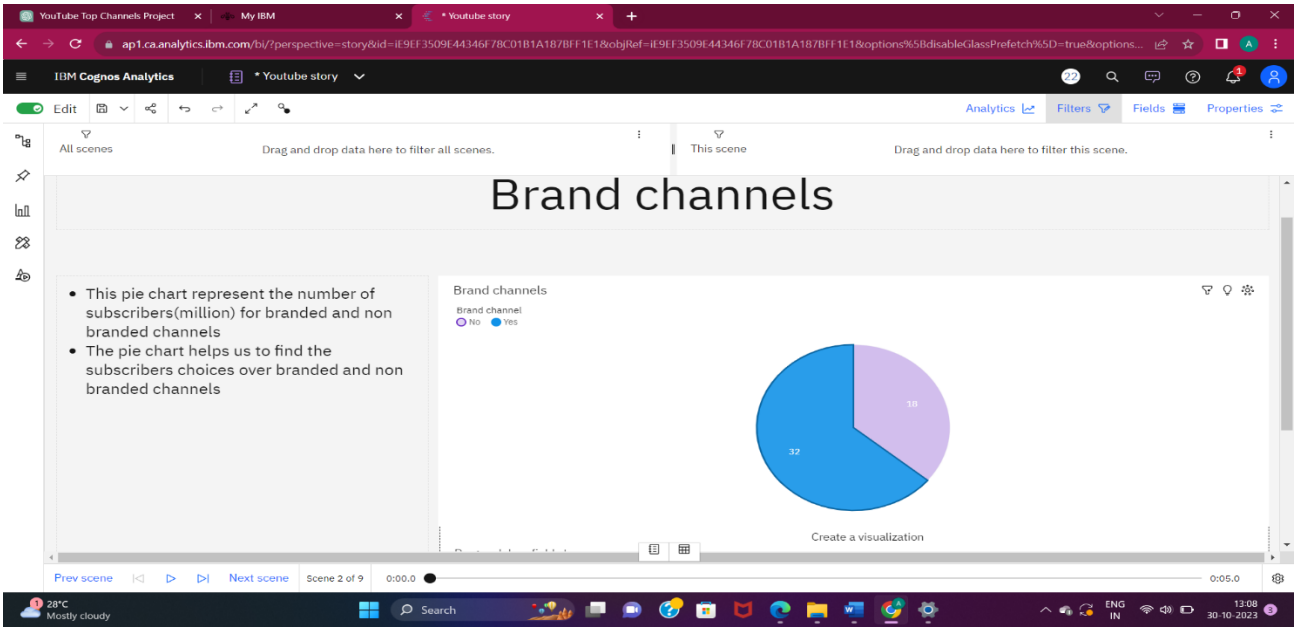

YouTube Top Channels Project
My IBM
* NM Project Report
ap1.ca.analytics.ibm.com/bi/?perspective=authoring&id=i499C19FE80BE4C829745E35922C2FB0A&objRef=i499C19FE80BE4C829745E35922C2FB0A&action=run&format=HTML&prompt=false&c...
IBM Cognos Analytics
* NM Project Report
Edit
HTML
Filters
Report
Subscribers in each category
Subscribers (milli...
55.9
1,500.7
Category
Music
Entertainment
Games
News
Education
Sports
Film
How-to
Music
Education
Games
Entertainment
Sports
How-to
Film
News
Subscribers in a country with specific language
Primary language
English
Hindi[13][14]
Korean
Hindi[16]
Spanish
Russian
Hindi[9]
Hindi
English[10][11][12]
Portuguese
Bhojpuri
Subscribers (millions)
0
200
400
600
800
1,000
1,200
1,400
Sweden
India
South Korea
Argentina
Russia
Cyprus[a]
Romania
United Kingdom
Mexico
Belarus
United States
Ukraine
Canada
Brazil
Chile
El Salvador
Country
28°C
Mostly cloudy
Search
ENG
IN
12:15
30-10-2023

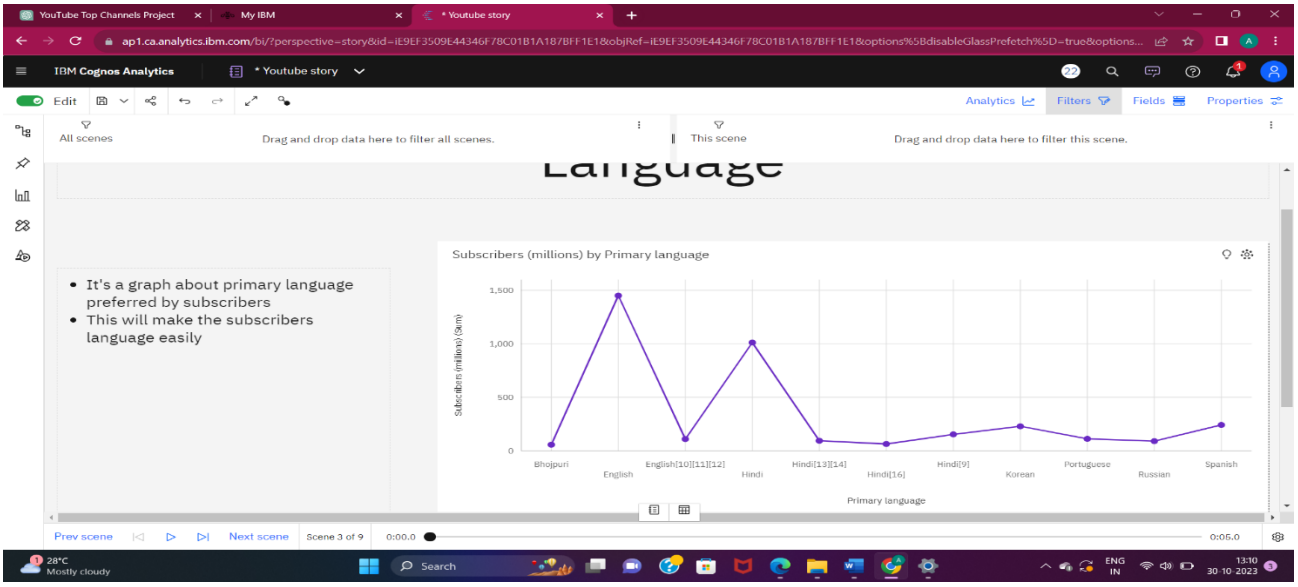

YouTube Top Channels Project
My IBM
* NM Project Report
IBM Cognos Analytics
* NM Project Report
Edit
HTML
Filters
Number of brand channels
Brand channel
No
Yes
1,195.8
2,411.4
Subscribers map
Subscribers (milli...
Category
Entertainment
Music
Education
Film
Games
Sports
News
Not all location data was resolved
Oct 30, 2023
1
1:46:26 AM
28°C
Mostly cloudy
Search
ENG
IN
12:15
30-10-2023

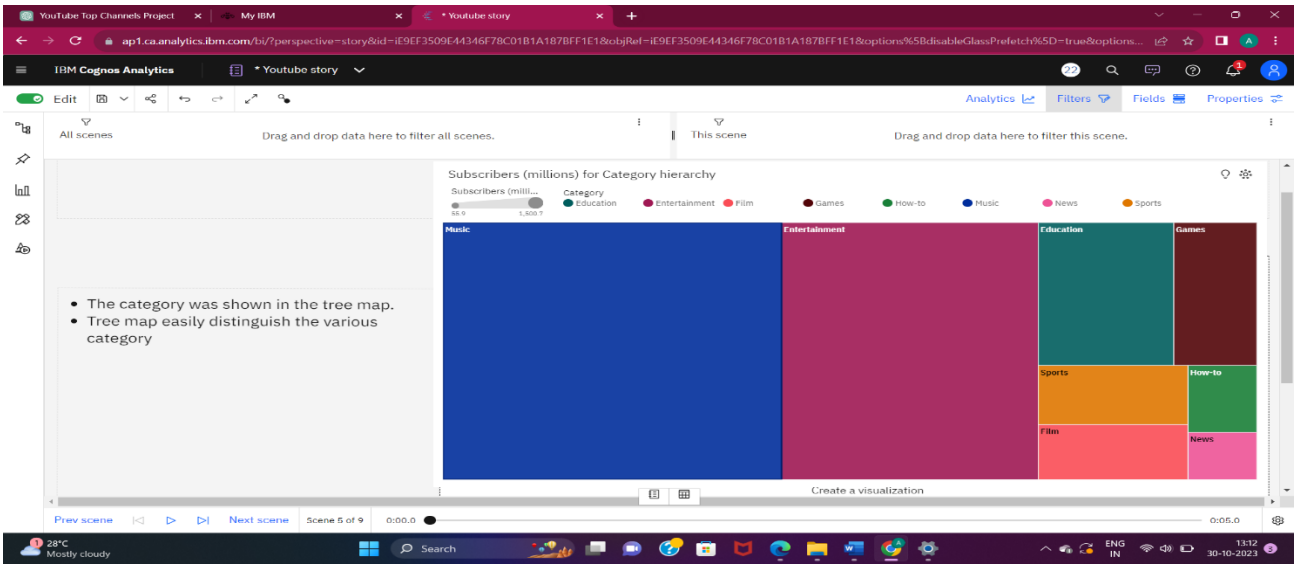
STORY:

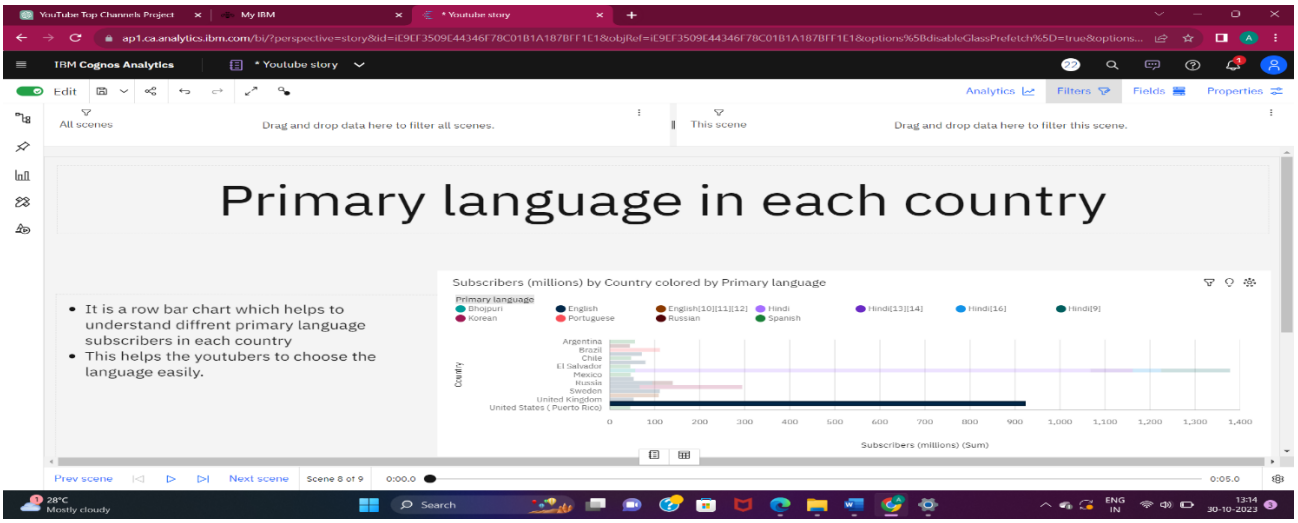

YouTube Top Channels Project
My IBM
Youtube story
IBM Cognos Analytics
Youtube story
Edit
Analytics
Filters
Subscribers galore
Exploring the world's top youtube channels
Prev scene
Next scene
Scene 1 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
12:06
30-10-2023

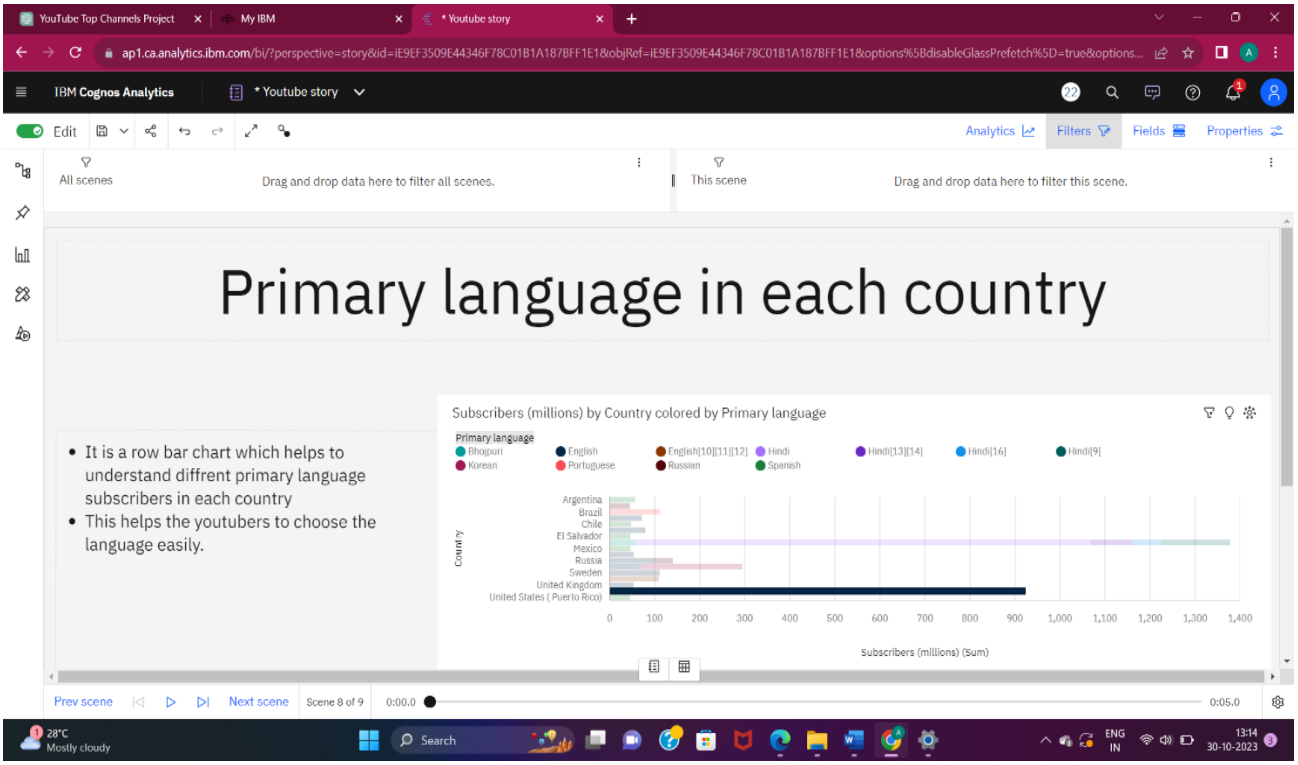

YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
* Youtube story
Edit
Analytics
Filters
Branded channel in primary language
This is a column bar about no of subscribers choose Branded channel on their primary language.
It helps to understand the choices of branded channels in primary language.
Subscribers (millions) by Primary language colored by Brand channel
Brand channel
No
Yes
Subscribers (millions) (Sum)
1,500
1,000
500
0
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language
Prev scene
Next scene
Scene 4 of 9
0:05.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
12:08
30-10-2023

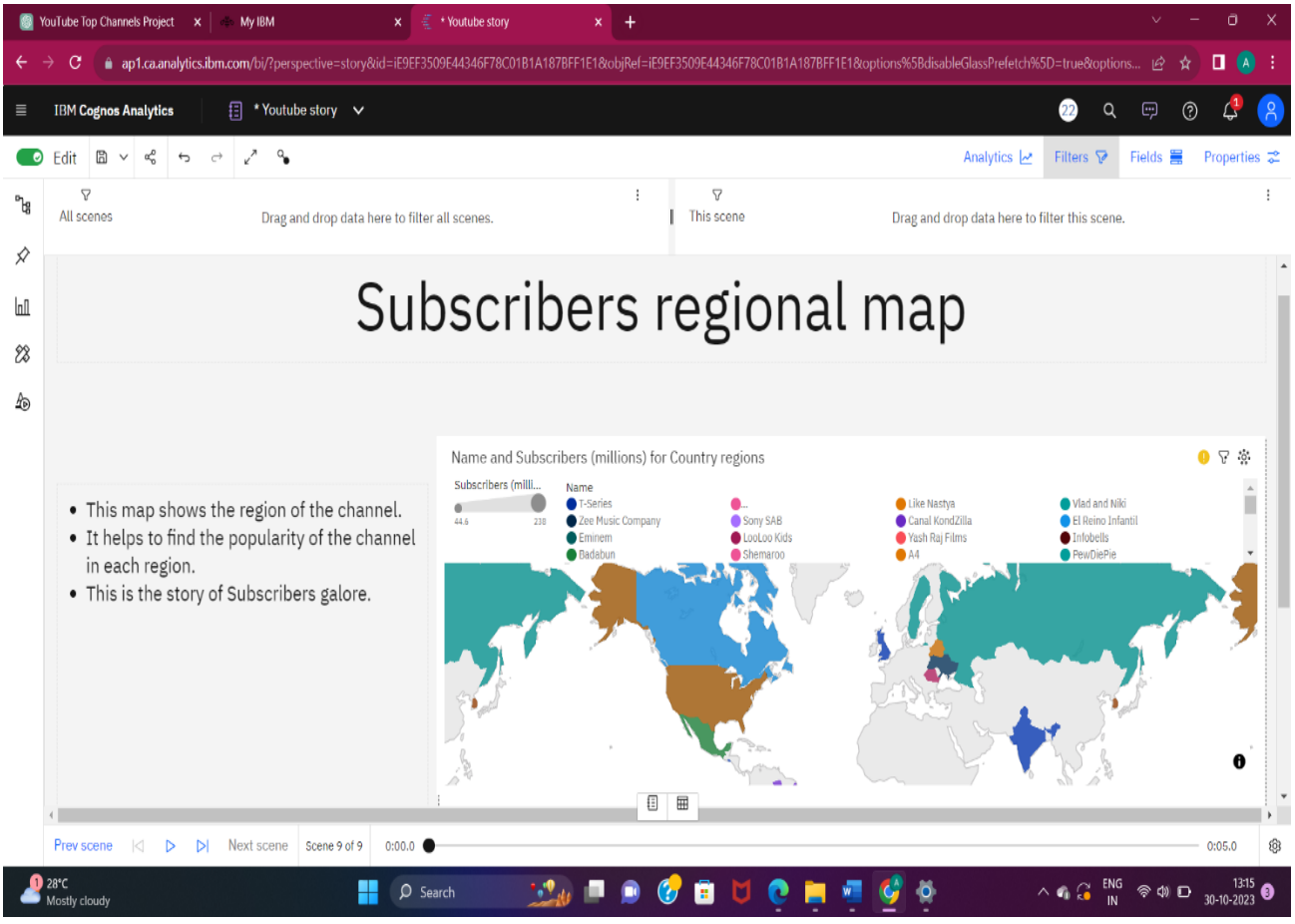

YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
* Youtube story
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
Brand channels
This pie chart represent the number of subscribers(million) for branded and non branded channels
The pie chart helps us to find the subscribers choices over branded and non branded channels
Brand channels
Brand channel
No
Yes
18
32
Create a visualization
Prev scene
Next scene
Scene 2 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:08
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
Language
It's a graph about primary language preferred by subscribers
This will make the subscribers language easily
Subscribers (millions) by Primary language
Subscribers (million) (Sum)
1,500
1,000
500
0
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Primary language
Prev scene
Next scene
Scene 3 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:10
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
The category was shown in the tree map.
Tree map easily distinguish the various category
Subscribers (millions) for Category hierarchy
Subscribers (milli...
Category
Education
Entertainment
Film
Games
How-to
Music
News
Sports
Music
Entertainment
Education
Games
Sports
How-to
Film
News
Create a visualization
Prev scene
Next scene
Scene 5 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:12
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
Primary language in each country
It is a row bar chart which helps to understand diffrent primary language subscribers in each country
This helps the youtubers to choose the language easily.
Subscribers (millions) by Country colored by Primary language
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Country
Argentina
Brazil
Chile
El Salvador
Mexico
Russia
Sweden
United Kingdom
United States (Puerto Rico)
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
Subscribers (millions) (Sum)
Prev scene
Next scene
Scene 8 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:14
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
* Youtube story
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
Primary language in each country
It is a row bar chart which helps to understand diffrent primary language subscribers in each country
This helps the youtubers to choose the language easily.
Subscribers (millions) by Country colored by Primary language
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[13][14]
Hindi[16]
Hindi[9]
Korean
Portuguese
Russian
Spanish
Country
Argentina
Brazil
Chile
El Salvador
Mexico
Russia
Sweden
United Kingdom
United States (Puerto Rico)
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
Subscribers (millions) (Sum)
Prev scene
Next scene
Scene 8 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:14
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
IBM Cognos Analytics
* Youtube story
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
Subscribers regional map
This map shows the region of the channel.
It helps to find the popularity of the channel in each region.
This is the story of Subscribers galore.
Name and Subscribers (millions) for Country regions
Subscribers (milli...
44.6
238
Name
T-Series
Zee Music Company
Eminem
Badabun
Sony SAB
LooLoo Kids
Shemaroo
Like Nastya
Canal KondZilla
Yash Raj Films
A4
Vlad and Niki
El Reino Infantil
Infobells
PewDiePie
Prev scene
Next scene
Scene 9 of 9
0:00.0
0:05.0
28°C
Mostly cloudy
Search
ENG
IN
13:15
30-10-2023

CHAPTER 10

Advantages and Disadvantages

"Subscriber Galore: Exploring The World’s Top YouTube Channel" as a data analytics project has its own set of advantages and disadvantages. Here's an overview:

Advantages:

1. Rich Data Source: YouTube provides a vast amount of data, including viewership statistics, subscriber counts, engagement metrics, and more. This data can be a goldmine for data analytics, offering insights into viewer behavior and content performance.

2. Audience Insights: By analyzing data from the project's own interactions, such as audience comments, poll responses, and engagement metrics, you can gain valuable insights into the preferences and opinions of your viewers.

3. Content Optimization: Data analytics can help you identify which types of content are most popular, which elements engage the audience the most, and what factors lead to higher subscriber counts. This information can be used to optimize future content.

4. Predictive Analytics: Over time, you can use data analytics to make predictions about the performance of specific content or the growth of the project. This can inform strategic decisions.

5. Audience Segmentation: Analytics can help you segment your audience, allowing you to tailor content and engagement strategies to different groups.

Disadvantages:

1. Data Privacy and Ethics: Handling and analyzing data, particularly user-generated data, raises concerns about data privacy and ethics. It's crucial to follow ethical guidelines and ensure data protection, which can be challenging.

2.Complexity and Resources: Data analytics projects, especially those involving big data, can be complex and resource-intensive. They require advanced tools, skilled data analysts, and potentially a significant budget.

3.Information Overload: The abundance of data can lead to information overload. It can be challenging to filter out noise and focus on the most relevant data points.

4.Accuracy and Bias: Data analytics results are only as good as the data itself. Biases in data collection, algorithmic biases, and inaccuracies in data sources can affect the validity of analytics results.

5.Interpretation Challenges: Data analytics results often require interpretation and context to be useful. Misinterpretation of data can lead to erroneous conclusions and actions.

6.Continuous Maintenance: Data analytics is an ongoing process. Continuous data collection, cleaning, and analysis are required to keep the project's insights up-to-date and relevant.

7.Competition and Market Changes: The YouTube landscape is highly competitive and subject to rapid changes. Analytics can help you keep up, but they can't always predict market disruptions or trends.

8.Limited Data Access: Some data may not be accessible due to YouTube's privacy policies or restrictions on data sharing. This can limit the scope of your analysis.

CHAPTER 11

Conclusion

In conclusion, "Subscriber Galore: Exploring The World’s Top YouTube Channel" as a data analytics project holds the promise of uncovering valuable insights into YouTube's vast and dynamic landscape, facilitating content optimization and audience engagement strategies. While the advantages of data-driven decision-making are evident, the project must remain vigilant in addressing data privacy and ethical considerations, maintaining data accuracy, and navigating the rapidly evolving YouTube ecosystem. By striking a balance between the benefits and challenges of data analytics, "Subscriber Galore" can continue to provide enlightening and engaging content, offering both content creators and viewers a deeper understanding of the digital media landscape and the audience that shapes it.

CHAPTER 12

Future Scope

The future scope for "Subscriber Galore: Exploring The World's Top YouTube Channel" in a is rich with opportunities for growth and enhancement. Here are some key areas of future development and expansion:

1.Advanced Predictive Analytics: Implement advanced predictive analytics models to forecast trends in YouTube channel growth, audience behavior, and content preferences. This can help content creators and viewers stay ahead of the curve.

2. Machine Learning and AI Integration: Incorporate machine learning and artificial intelligence for automated content recommendations, personalized content, and enhanced data analysis, allowing for more precise insights and tailored experiences.

3. Audience Segmentation Refinement: Continuously refine audience segmentation based on data analysis, ensuring more accurate and

nuanced categorization of viewers to provide even more customized content and engagement strategies.

4. Collaborations and Partnerships: Forge collaborations and partnerships with other data analytics projects, media companies, or influencers to expand the project's reach, foster knowledge sharing, and explore cross-promotional opportunities.

5. Interactive Data Dashboards: Develop interactive data dashboards for viewers, allowing them to explore data analytics results and gain deeper insights into their favorite channels and trends within the YouTube landscape.

6. Content A/B Testing: Employ A/B testing methodologies to experiment with different content formats and styles, using data analytics to determine which strategies yield the most engagement and growth.

7. Multi-Platform Analysis: Extend data analytics to encompass other emerging video-sharing platforms beyond YouTube, offering a

comprehensive analysis of the entire online video content ecosystem.

8. Monetization Strategies: Further refine and innovate monetization strategies based on analytics insights, identifying revenue opportunities while maintaining an audience-centric approach.

9. Educational and Consultation Services: Offer data analytics expertise and consultation services to emerging YouTubers and content creators, helping them harness the power of data to improve their channels.

10. Content Sustainability: Develop strategies to maintain the project's long-term sustainability, both from a data analytics and financial perspective, to ensure continuous growth and relevance.

11. Global Reach: Expand the project's international reach by featuring YouTube channels from a wider array of countries and cultures, broadening the understanding of global content creation.

12. Audience-Generated Content: Encourage audience participation by allowing viewers to submit their content and data insights, fostering a sense of co-creation and community involvement.

13. Real-time Analytics: Incorporate real-time analytics and insights, allowing viewers and content creators to access up-to-the-minute data on channel performance and trends.

14. Data Visualization Enhancements: Improve data visualization techniques to make complex analytics results more understandable and engaging for a broader audience.

15. Innovative Data Sources: Explore new data sources and technologies, such as VR/AR analytics, for a more immersive and interactive viewing experience.

By embracing these future developments, "Subscriber Galore" can continue to evolve as a leading project in data analytics for YouTube, offering a deeper, more interactive, and increasingly valuable experience to content creators, viewers, and data enthusiasts.

CHAPTER 13

Appendix :

Web Integration :

Web integration is a critical component in harnessing the power of IBM Cognos for marketing data analysis. This section delves into the pivotal role of web integration in accessing, consolidating, and disseminating data from diverse online sources. It emphasizes the integration of data from websites, social media platforms, and webbased applications into the Cognos ecosystem, enabling marketers to gain a holistic view of their digital presence. Furthermore, it highlights the significance of Application Programming Interfaces (APIs) in facilitating seamless data exchange between web services and Cognos for in-depth analysis. The web-based data visualization capabilities of Cognos, allowing interactive dashboards to be embedded in websites or shared via web links, are also showcased. Real-time web monitoring empowers marketers to respond swiftly to changing web dynamics, while mobile-friendly reports ensure that data insights are accessible on-the-go. Lastly, the section underscores the importance of security and user authentication in safeguarding web

data and ensuring compliance. Web integration within IBM Cognos not only streamlines data access and analysis but also supports real-time decision-making in the trends of social media.

CODING :

FLASK CODING : (app.py)

from flask import Flask, send_from_directory app = Flask(__name__) @app.route('/') def open_html(): folder_path = 'C:/Users/samue/Desktop/' # Specify the path to your desktop folder return send_from_directory(folder_path, 'Subscriber Galore.html') if __name__ == '__main__': app.run(debug=True)

HTML CODING : ('Subscribers Galore.html')

<html>

<head>

<title> Subscribers Galore:Exploring The Worlds Top YouTube Channels </title>

<style>

h1, h2, h3, h4, h5, h6 {

text-align: center;

```
    color: red;
    background-color: yellow;
}
.top-bar {
  background-color: #333; /* Background color of the top bar */
  color: #fff; /* Text color in the top bar */
  text-align: center;
  padding: 10px 0;
}

/* Style the buttons */
.button {
  background-color: #444; /* Button background color */
  color: #fff; /* Button text color */
  padding: 10px 20px;
  margin: 10px;
  border: none;
  cursor: pointer;
```

```
}


/* On hover, change the background color of the buttons */
.button:hover {
  background-color: #555;
}
  </style>
</head>
<body background =
"https://wallpapersmug.com/download/1920x1080/761f4e/galaxy-
space-stars-5k.jpg">
<div class="top-bar">
  <button class="button"
onclick="scrollToDashboard()">Dashboard</button>
  <button class="button"
onclick="scrollToReport()">Report</button>
  <button class="button" onclick="scrollToStory()">Story</button>
</div>
<h1> NM PROJECT DATA ANALYTICS </h1>
```

<h1> Subscribers Galore:Exploring The Worlds Top YouTube Channels </h1>

** **

<h2> DASHBOARD </h2>

**
**

<iframe src="https://ap1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FSubscribersdashboard&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&mode=dashboard&subView=model0000018b5d551e6c_00000000" width="1350" height="900" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

**

**

** **

** **

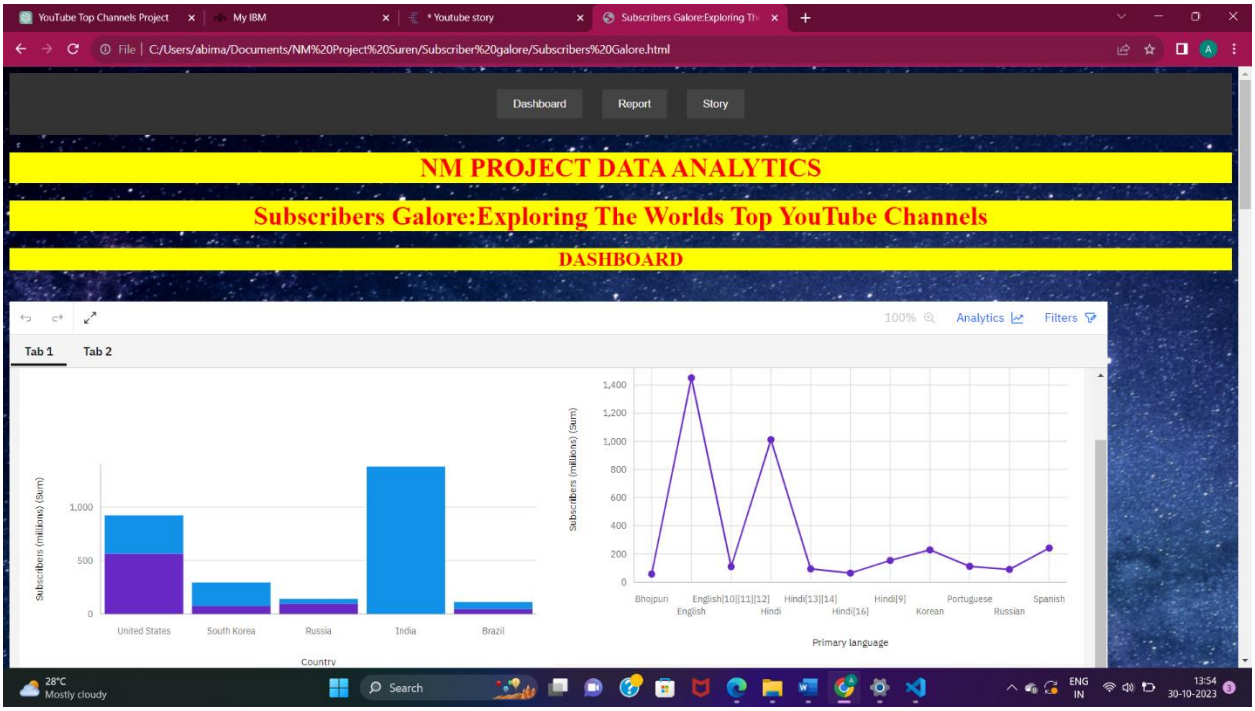
<h2> REPORT </h2>

**
**

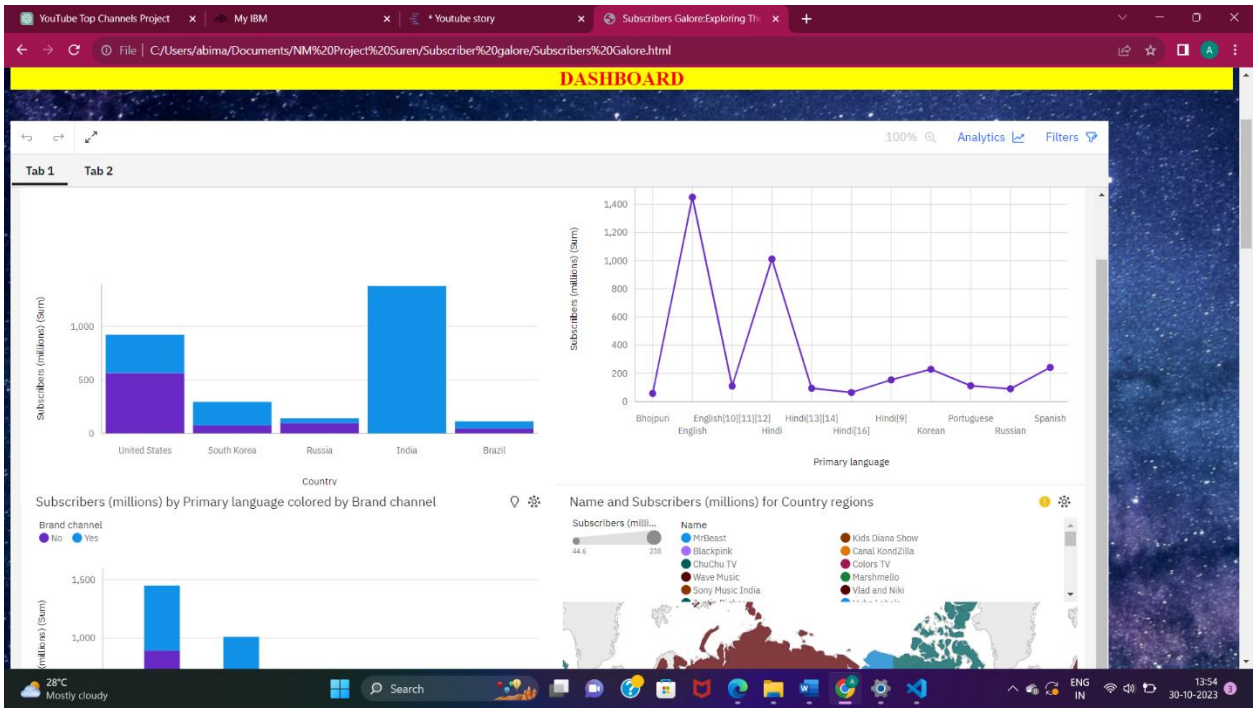
<iframe src="https://ap1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNM%2BProject%2BReport&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="1350" height="900" frameborder="0"

```
gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>

<br> <br>

</div>

<div id="story">

<h2> STORY </h2>

<br>

<iframe
src="https://ap1.ca.analytics.ibm.com/bi/?perspective=story&amp;amp;p
athRef=.my_folders%2FYoutube%2Bstory&amp;amp;closeWindowOnL
astView=true&amp;amp;ui_appbar=false&amp;amp;ui_navbar=false&amp;amp;s
hareMode=embedded&amp;amp;action=view&amp;amp;sceneId=model0000
018b5d7efa12_00000001&amp;amp;sceneTime=0" width="1350"
height="900" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>

<br>

</div>

<script>

// JavaScript for smooth scrolling to the sections

function scrollToDashboard() {

  document.getElementById("dashboard").scrollIntoView({
behavior: "smooth" });
```

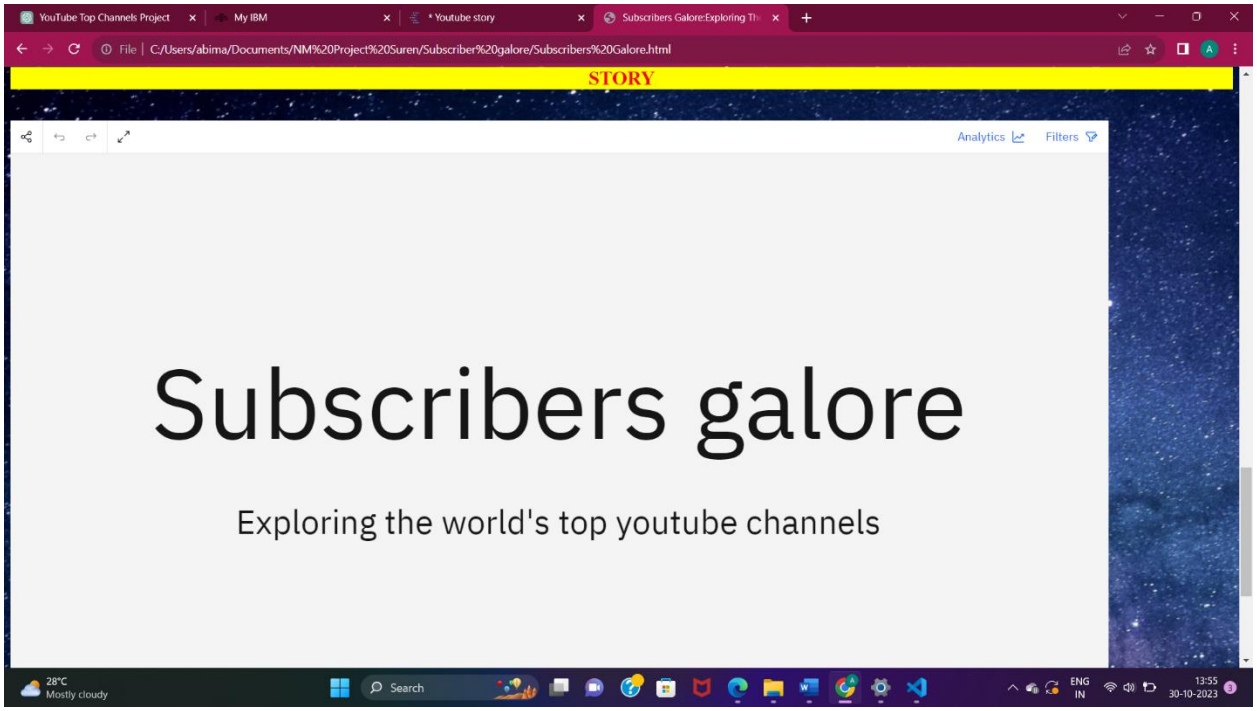
```
}


function scrollToReport() {

  document.getElementById("report").scrollIntoView({ behavior:
"smooth" });

}


function scrollToStory() {

  document.getElementById("story").scrollIntoView({ behavior:
"smooth" });

}

</script>

<h3> DONE BY <br> TEAM LEADER: SURENTHAR M

<br> TEAM MEMBERS: SIVARANJINI,SIVASELVAN,SUVARAJ
</h3>

</body>

</html>
```

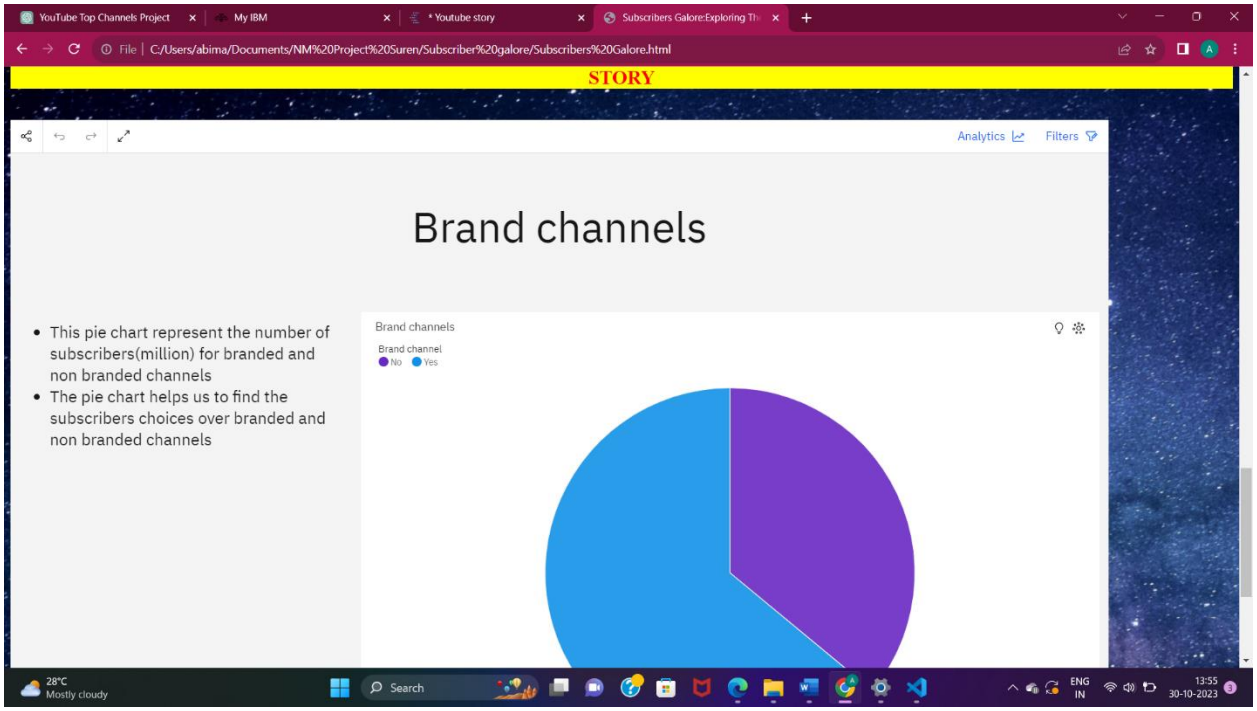

YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
Dashboard
Report
Story
NM PROJECT DATA ANALYTICS
Subscribers Galore:Exploring The Worlds Top YouTube Channels
DASHBOARD
100%
Analytics
Filters
Tab 1
Tab 2
Subscribers (millions) (Sum)
United States
South Korea
Russia
India
Brazil
Country
Bhojpuri
English[10][11][12]
Hindi[13][14]
Hindi[9]
Portuguese
Spanish
English
Hindi
Hindi[16]
Korean
Russian
Primary language
28°C
Mostly cloudy
Search
ENG
IN
13:54
30-10-2023

Dashboard

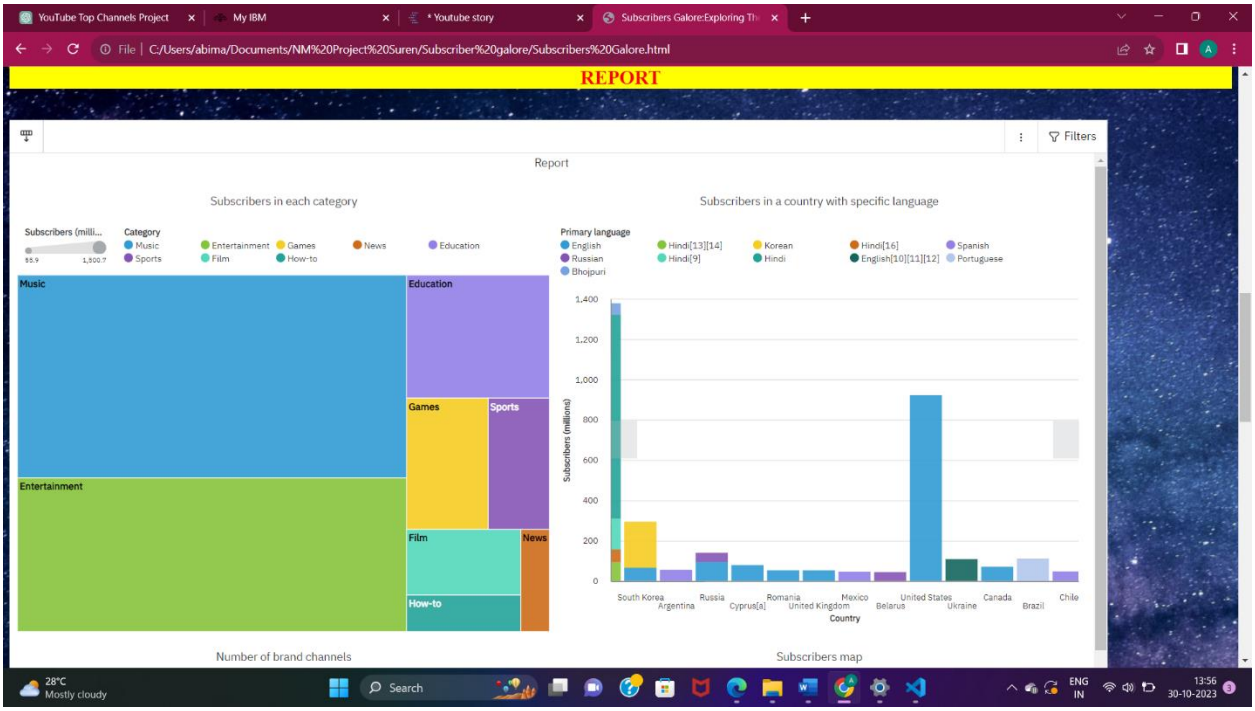

YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
DASHBOARD
100%
Analytics
Filters
Tab 1
Tab 2
Subscribers (millions) (Sum)
United States
South Korea
Russia
India
Brazil
Country
Bhojpuri
English[10][11][12]
Hindi[13][14]
Hindi[9]
Portuguese
Spanish
English
Hindi
Hindi[16]
Korean
Russian
Primary language
Subscribers (millions) by Primary language colored by Brand channel
Brand channel
No
Yes
Name and Subscribers (millions) for Country regions
Subscribers (milli...
Name
MrBeast
Blackpink
ChuChu TV
Wave Music
Sony Music India
Kids Diana Show
Canal KondZilla
Colors TV
Marshmello
Vlad and Niki
28°C
Mostly cloudy
Search
ENG
IN
13:54
30-10-2023

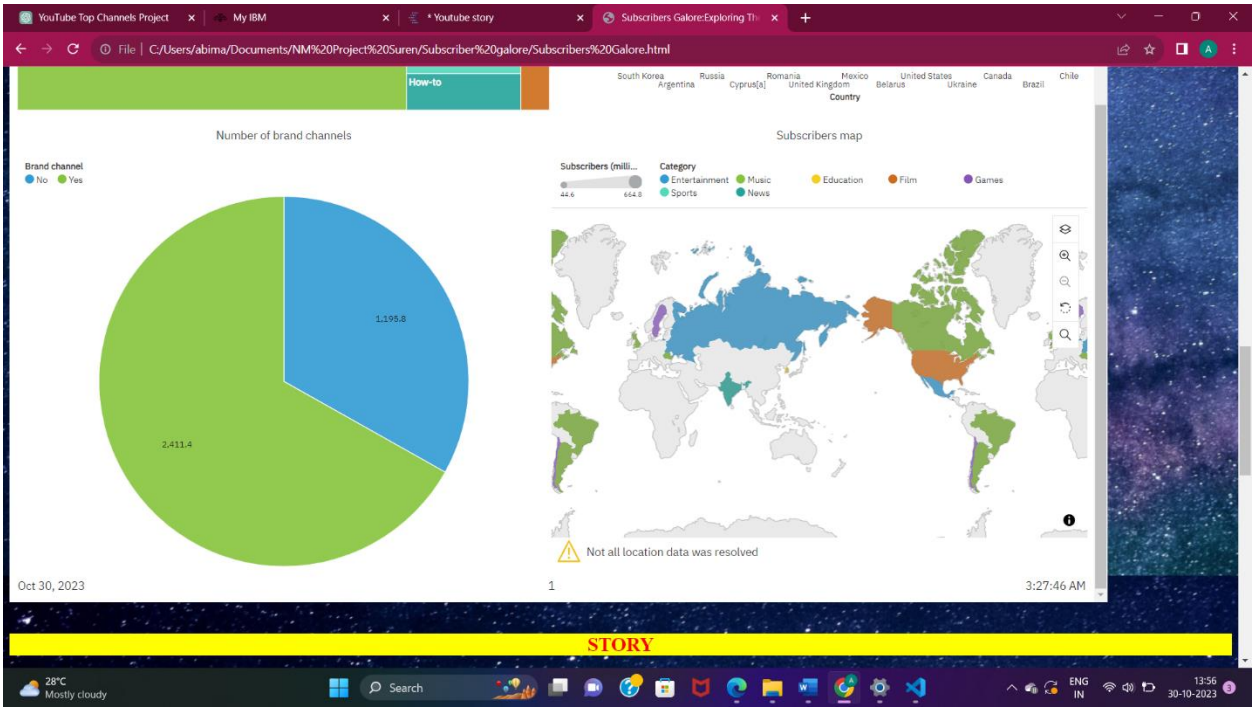
Story :

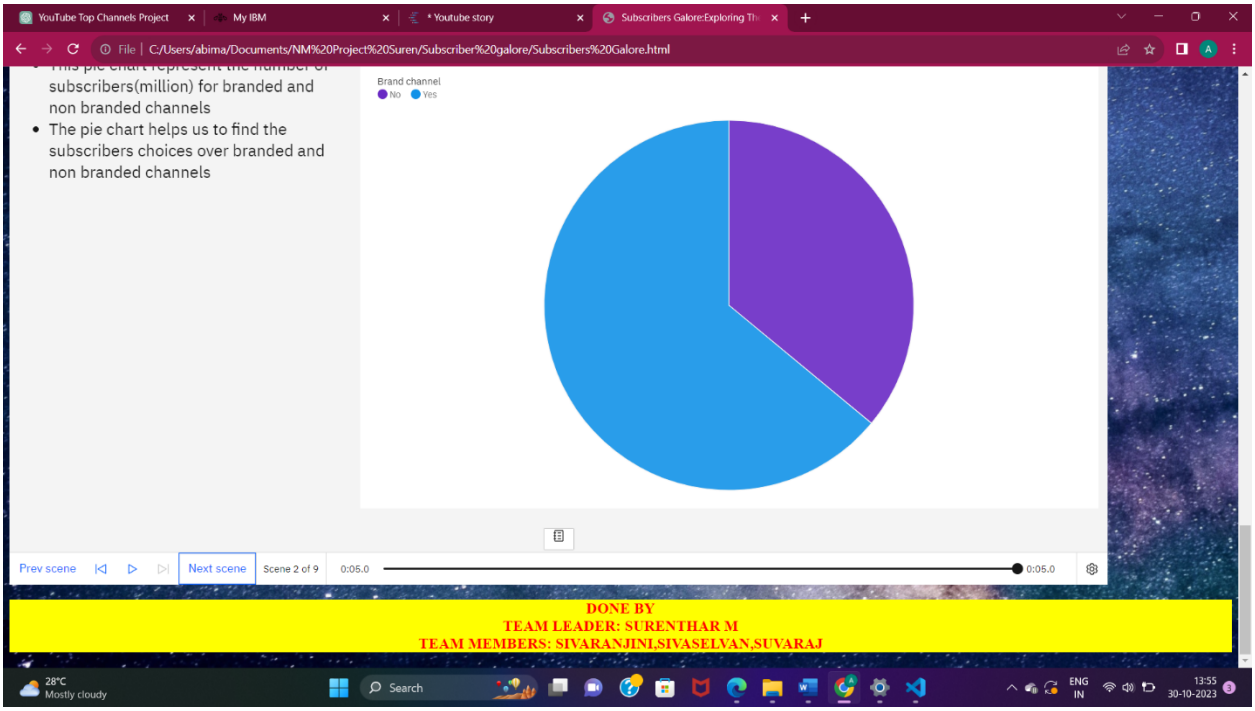

YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
STORY
Analytics
Filters
Subscribers galore
Exploring the world's top youtube channels
28°C
Mostly cloudy
Search
ENG
IN
13:55
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
STORY
Analytics
Filters
Brand channels
This pie chart represent the number of subscribers(million) for branded and non branded channels
The pie chart helps us to find the subscribers choices over branded and non branded channels
Brand channels
Brand channel
No
Yes
28°C
Mostly cloudy
Search
ENG
IN
13:55
30-10-2023

Report


YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
REPORT
Filters
Report
Subscribers in each category
Subscribers (milli...
55.9
1,500.7
Category
Music
Sports
Entertainment
Film
Games
How-to
News
Education
Music
Education
Games
Sports
Entertainment
Film
News
How-to
Subscribers in a country with specific language
Primary language
English
Russian
Bhojpuri
Hindi[13][14]
Hindi[9]
Korean
Hindi
Hindi[16]
English[10][11][12]
Spanish
Portuguese
Subscribers (millions)
1,400
1,200
1,000
800
600
400
200
0
South Korea
Argentina
Russia
Cyprus[a]
Romania
United Kingdom
Mexico
Belarus
United States
Ukraine
Canada
Brazil
Chile
Country
Number of brand channels
Subscribers map
28°C
Mostly cloudy
Search
ENG
IN
13:56
30-10-2023


YouTube Top Channels Project
My IBM
* Youtube story
Subscribers Galore:Exploring Th
File | C:/Users/abima/Documents/NM%20Project%20Suren/Subscriber%20galore/Subscribers%20Galore.html
How-to
South Korea
Argentina
Russia
Cyprus[a]
Romania
United Kingdom
Mexico
Belarus
United States
Ukraine
Canada
Brazil
Chile
Country
Number of brand channels
Subscribers map
Brand channel
No
Yes
1,195.8
2,411.4
Subscribers (milli...
44.6
664.8
Category
Entertainment
Sports
Music
News
Education
Film
Games
Not all location data was resolved
Oct 30, 2023
1
3:27:46 AM
STORY
28°C
Mostly cloudy
Search
ENG
IN
13:56
30-10-2023



GITHUB LINK :

https://github.com/imsurenthar/Subscriber-Galore-Exploring-the-top-YouTube-channels

PROJECT DEMO LINK :

https://drive.google.com/file/d/1J-PBYl-pI0VfQzC-dAdy5ca2of96HnVA/view?usp=drivesdk