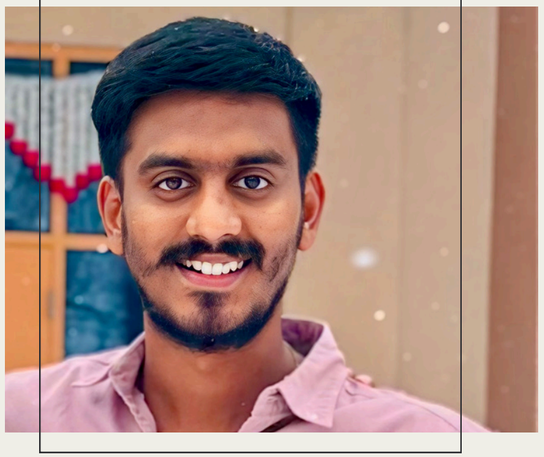
YouTube

DATA ANALYSIS

MEET THE TEAM 08



DATA SCIENTIST

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BUSINESS PROBLEM

Content creators lack clear insights into what makes YouTube video trend quickly and engages audiences . The gap in understanding leads to suboptimal content strategies , impacting overall video performance on the platform. A systematic, data driven solution is needed to empower in optimizing their content effectively

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PROPOSED SOLUTION

Implement a data-driven solution leveraging AWS services to analyze YouTube data . Provide content creators with actionable insights, visualizations, and optimization recommendations, empowering them to enhance engagement.

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BUSINESS QUESTIOIN

Current optimization :

Question : What specific element in video content significantly impact rapid trendiness and sustained engagement ?

Geographic Tailoring :

Question : How can content creators tailor their videos based on geographic variations to maximize audience in different regions?

Optimal Timing and Length :

Question : What are the optimal times, days and video lengths for publishing content to ensure higher visibility and trendiness ?

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THE SOLUTIONS

CONTENT OPTIMIZATION

Data Analysis :
Engaging titles, relevant tags.

Sentiment Analysis :
Understanding audience reactions.

GEOGRAPHIC TAILORING

Analyze Regional Data :
identify preferences.

Tailor Content :
Cultural references , trending topics.

OPTIMAL TIMING AND LENGTH

Time-series Analysis:
Peak hours and days.

Length Trends :
Optimal duration for engagement

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DATA OVERVIEW

SOURCE : https://www.kaggle.com/datasets/datasnaek/youtube-new

Attributes : In depth details includes video title, channel information, publication time, tags, views , likes, dislikes, description and comment count .

Categories : videos categorized with a unique identifier (category_id) that varies across to the dataset.

Storage : Centralized in Amazon S3, ensuring scalable, secure, and efficient access to the dataset .

Objective : Facilitate detailed analysis to uncover pattern and trends, understanding the factors influencing video trendiness and engagement on the YouTube platform

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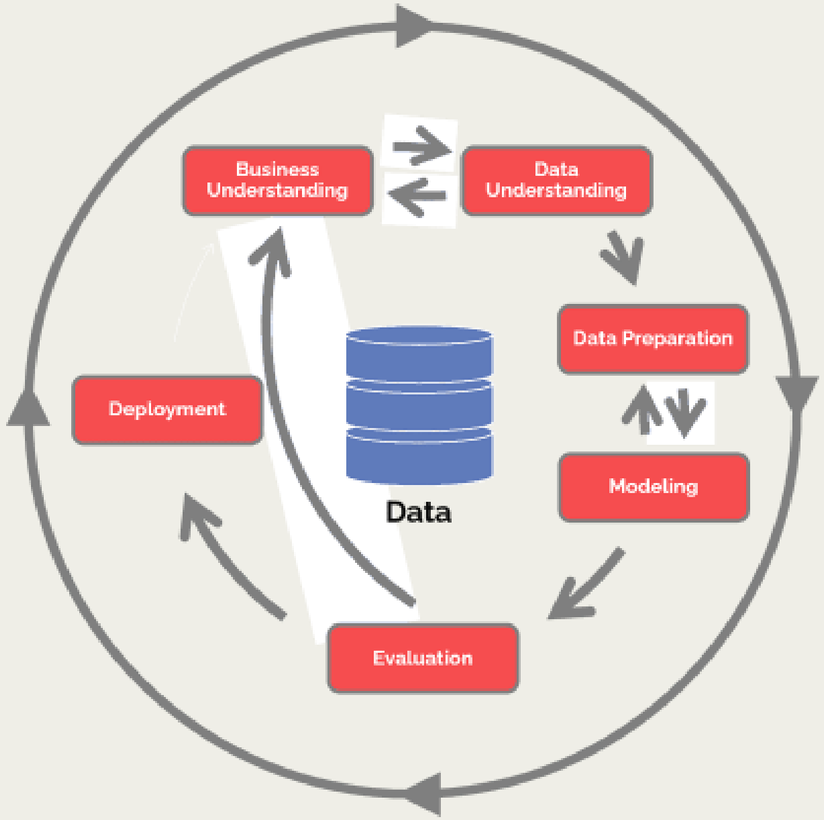
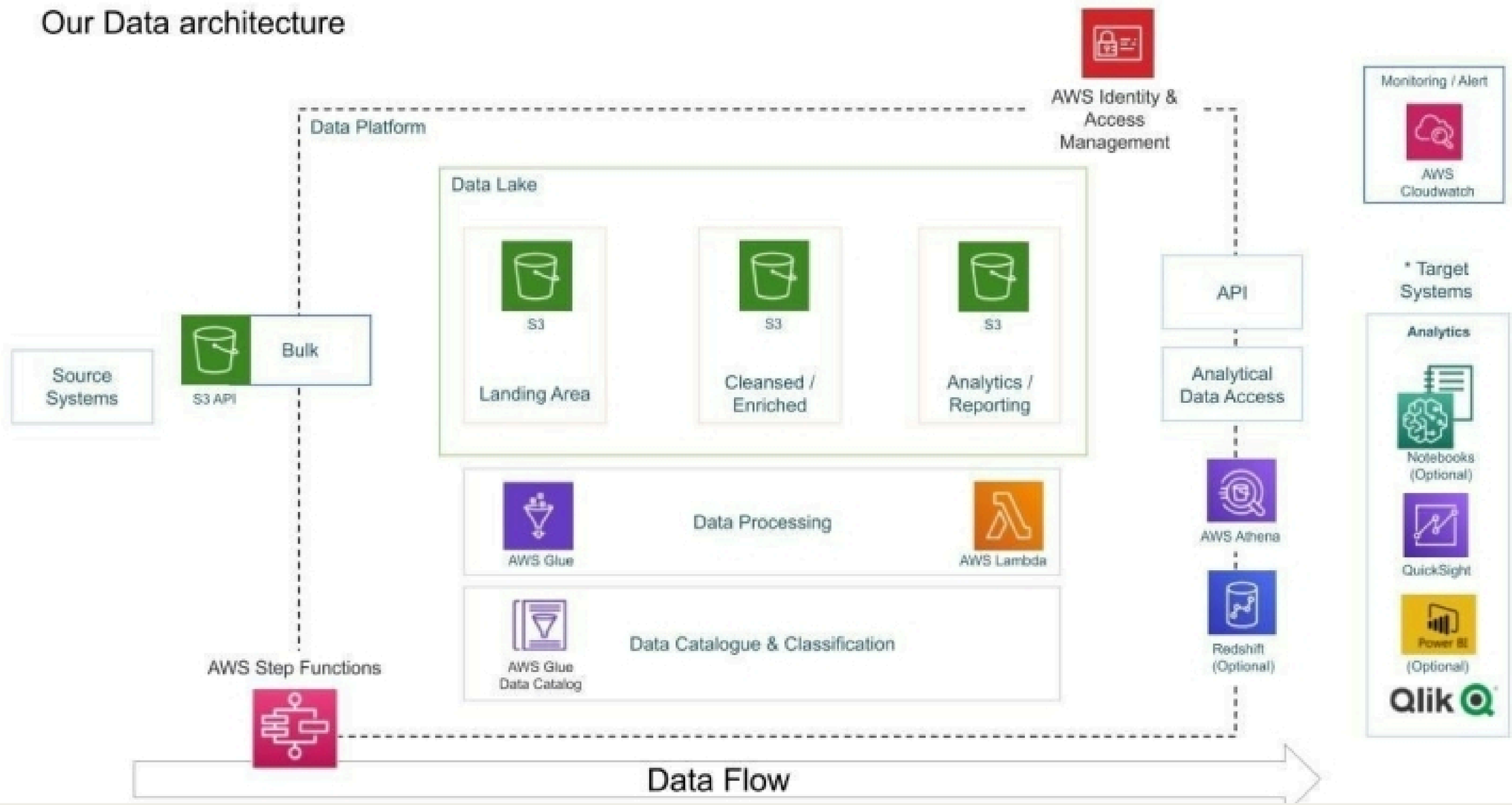
METHODOLOGY CRISP-DM



TECHNOLOGIES



PATH TO INTEGRATION

Data Setup and Transformation

> Acquire Kaggle dataset fro YouTube videos.
> Employ AWS Glue for data transformation.
> Establish a centralized data lake on Amazon S3 for efficient storage

AWS Integration and Analysis

> Ensure scalability with AWS services.
> Implement serverless processing using Lambda.
>Utilize Athena for interactive querying and apply machine learning techniques for insightful analysis.
>Integrate Amazon Quick Sight for creating interactive dashboards and visualization.

Documentation, training and Feedback

> Document the data processing pipeline for reference.
> Conduct training sessions for stakeholders to interpret insights.
> establish a continuous feedback loop for content creators, adapting analyses based on emerging trends.
>Evalute project outcomes, refining processes for further optimization

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COMPETITIVE ANALYSIS

Informed Decision-Making with Data

The project empowers content creators through detailed data analysis and machiine learning insights by delving into video attributes, sentiment and trends creators can make informed decision, aligning their content with what resonates most with their audience.

Comprehensive Understanding of success factor

The project takes a holistic approach, offering into content optimization, geographic preferences and optimal timing. this comprehensive understanding enables creators to strategically tailor their content for maximum impact and engageent

Efficiency, Scalability and continuous improvement

Leveraging AWS services ensures scalability,security and efficient processing of vast datasets. the establishment of a user feedback loop allows for continuous improvemnet, adapting analyses based on real time feedback and evolving trnds , creating a dynamic and efficient content optimization strategy

YouTube


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