Project Initialization and Planning Phase

Date	15 July 2024
Team ID	team-740680
Project Title	View count visionary:data driven approach to forecasting youtube videos views project
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal View Count Visionary - A Data-Driven Approach to Forecasting YouTube Video Viewse outline a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	View Count Visionary - A Data-Driven Approach to Forecasting YouTube Video Views
Scope	- Collect and preprocess data - Train and deploy machine learning model - Develop user interface - Evaluate model performance
Problem Statement	
Description	The problem addressed by "View Count Visionary" revolves around the uncertainty content creators, marketers, and analysts face in predicting the future popularity of YouTube videos shortly after their release.
Impact	-content creators -marketers -analysts -industry competitiveness -platform optimiztion
Proposed Solution	
Approach	-data collection and storage -data processing and analysis -real-time processing -visualization and reporting -machine learning integration
Key Features	-user interface and accessibility -scalability and performance -security and compliance

	-automation and alerts -integration capabilities

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	Virtual machines with multiple cores (e.g., 8 cores) and sufficient processing power (e.g., Intel Xeon, AMD EPYC).	e.g., Virtual Machines: Each with 8 cores, 3.5 GHz Intel Xeon processor
Memory	Servers with 64GB or more of RAM to ensure smooth operation and quick access to data.	e.g., 64GB DDR4 RAM per virtual machine
Storage	Combination of fast storage (SSD/NVMe) for active data and larger capacity storage (HDD) for less frequently accessed data.	e.g., 1TB NVMe SSD for high-speed data access and processing
Software		
Frameworks	-web framework -big data framework	e.g., Use Django with PostgreSQL for building a robust web application to track and manage view counts, integrating with Apache Spark for data processing and analysis.
Libraries	-data analysis -visualization -machine learning	e.g., Utilize Pandas and Matplotlib to analyze and visualize historical view count data, identifying patterns and trends.
Development Environment	-IDEs(integrated development environments) -version control -containerization	e.g., Develop in Visual Studio Code, use Git for version control, and Docker for containerizing the application for seamless deployment.
Data		

Data	-data storage -data processing -data visualization	e.g., Store user interaction and view count data in MongoDB for flexibility and scalability, process real-time data streams with Apache Kafka, and visualize insights with Tableau dashboards.