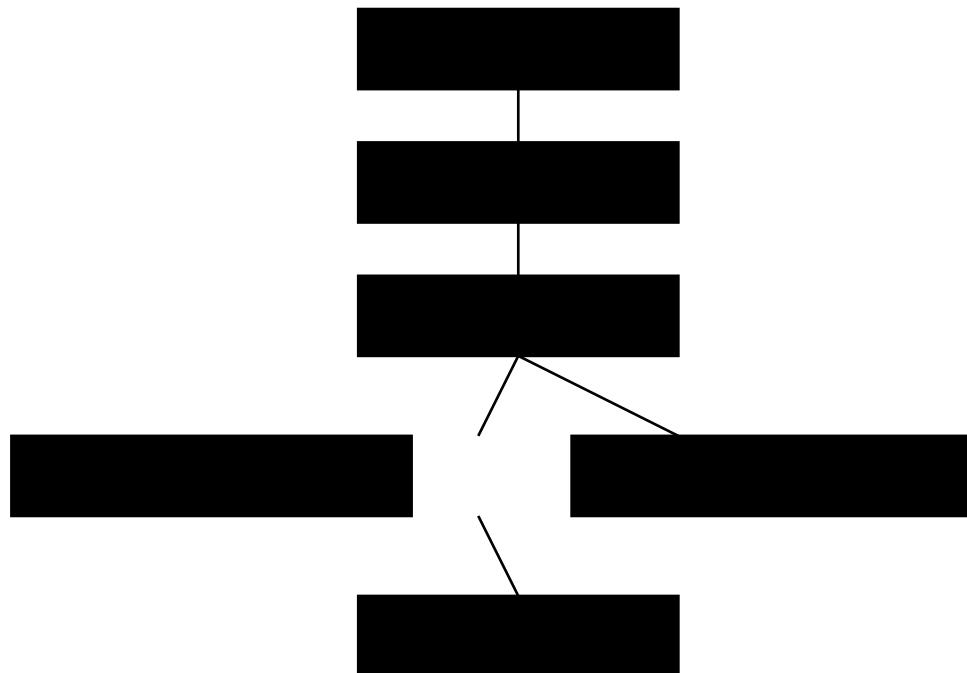


ASSIGNMENT DOCUMENT — BIG DATA INGESTION + CREDIT-BASED API SYSTEM

Submitted By: Dhiraj Shingade

Project Title: Unified Big Data Ingestion, Storage, and Credit-Regulated API Delivery System

This document presents a full architecture for a modern, scalable big-data ingestion and credit-based API delivery system. It includes ingestion workflows, storage choices, API design, credit control, and scalability considerations.



This diagram illustrates the system architecture including data ingestion, Spark processing, data lake storage, analytical serving in ClickHouse, and a credit-based API layer.