

Project Design Phase-I

Solution Architecture

Date	10 Oct 2023
Team ID	NM2023TMID02617
Project Name	DISSECTING THE DIGITAL LANDSCAPE: A COMPREHENSIVE ANALYSIS OF SOCIAL MEDIA

Solution Architecture:

SOLUTION TO SOLVE EXISTING PROBLEMS:

Leverage Cognos for water quality assessment by gathering, cleansing, and integrating data. Apply advanced analytics and collaborate with domain experts to gain insights. Ensure adherence to regulations, promote sustainability, and continuously refine the management of the dynamic social media ecosystem.

STRUCTURES, CHARACTERISTICS, BEHAVIOR AND OTHER ASPECTS:

Structure:

- Social media platforms serve as the fundamental framework, encompassing a variety of networks such as Facebook, Twitter, Instagram, and more.
- Content constitutes a significant portion of the structure, encompassing text, images, videos, and links.
 - User profiles and interactions define the structural elements, reflecting user behaviors, preferences, and connections.

Characteristics:

- Social media platforms are renowned for user-generated content and real-time interactions.
- They offer a wide array of content types, fostering creativity and expression.
- Virality and swift information dissemination are distinctive traits.

Behavior:

- Users engage in activities like sharing, commenting, liking, and following others.
- Content undergoes trends, frequently influenced by user interactions and algorithms.
- Users exhibit diverse behaviors, from passive consumption to active participation.

Other aspects:

- Privacy and data security are paramount concerns, impacting user trust and platform policies.
- Social media wields significant influence on public discourse, politics, and culture.

FEATURES, DEVELOPMENT PHASES, AND SOLUTION REQUIREMENTS.

Features:

- Collecting data from a variety of social media platforms, including user engagement metrics, content trends, and technological advancements.
- Remaining informed about emerging trends and advancements in the social media domain to predict and adjust to future developments.
- Establishing ongoing data collection for real-time analysis.
- Facilitating data exchange and cooperation among researchers and stakeholders.
- Offering user training and assistance to optimize system utilization.

Development phases:**Planning:**

Defining aims and goals, recognizing interested parties, and specifying project boundaries

Design:

Formulating user interfaces, creating algorithms, and crafting data visualization tools

Development:

Constructing the software through programming languages and databases

Testing:

Verifying that the software meets all the requirements and identifying and fixing any issues.

Deployment:

Introducing the software into the intended setting

Maintenance:

Refreshing and enhancing the software to assure sustained performance and user contentment

Solution requirements:

- Establish mechanisms for prompt data analysis and decision-making.
- Maintain data accuracy and reliability for informed decisions.
- Safeguard sensitive social media data from unauthorized entry and breaches.
- Ensure the system can accommodate growing data volumes and demands.
- Incorporate robust statistical and machine learning techniques for thorough analysis.
- Embed attributes that endorse the conservation of the ecosystem and responsible social media administration.

PROVIDING SOLUTIONS ACCORDING TO WHICH THE SOLUTION IS DEFINED, MANAGED AND DELIVERED:**Definition:**

- They possess a distinct mission and vision concentrated on enriching comprehension and remedies associated with digital terrain. They specify their distinct services, which may involve water quality assessment, data analytics, consulting, and more.
- The study outlines precise services, encompassing data gathering, assessment of psychological impact, algorithm scrutiny, trend supervision, and more.
- The initiative recognizes and comprehends the distinct requisites and anticipations of its clients, encompassing individuals, businesses, and policymakers.
- The range of services is precisely described, embracing the global social media landscape.

Management:

- The research administers data acquisition from diverse origins, encompassing social media platforms and publicly accessible data.
- Data is rigorously processed and assessed utilizing advanced analytics instruments.
- The firm employs state-of-the-art technologies and instruments for data examination, including software such as IBM Cognos.
- They enforce quality assurance procedures to preserve elevated benchmarks in their offerings.
- Quality assurance procedures are established to guarantee the precision and dependability of research discoveries.

Delivery:

- They furnish data illustration via reports, dashboards, and charts to enhance understanding.
- The provided insights delivered are actionable, allowing clients to make informed decisions.
- They present tailored resolutions in alignment with the individual needs of each client.
- Consistent communication channels are instituted to keep clients apprised of advancement and discoveries.
- The firm issues comprehensive reports on water quality, accessibility, and correlated measurements.
- They could extend training and assistance to clients for the effective utilization of their services.

Example - Solution Architecture Diagram: