Project Design Phase-II Technology
Stack (Architecture & Stack)

Date	21 October 2023
Team ID	NM2023TMID07518
Project Name	Dissecting The Digital Landscape: A Comprehensive Analysis Of Social Media
Maximum Marks	4 Marks

Technical Architecture:

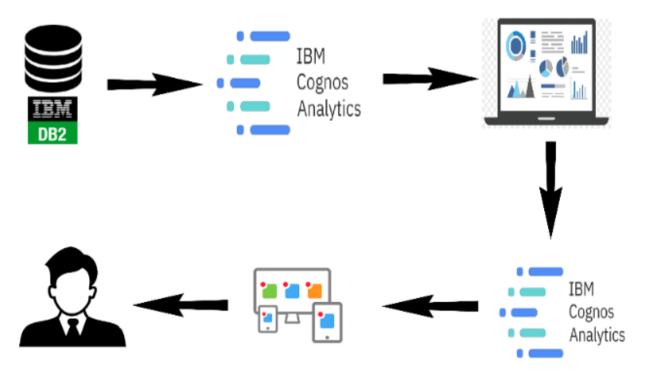The Deliverable shall include the architectural diagram as below and the information as per the table1 & table2

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	IBM Cognos	Business intelligence and analytics tool	IBM Cognos Analytics
2	Data Sources	Platforms and APIs for social media data	Twitter API, Facebook Graph API, Instagram API, etc.
3	Data Collection Module	Software for collecting social media data	Custom Python scripts, data scraping tools
4	Data Analysis Engine	Software for processing and analyzing data	IBM Cognos Analytics, Python for data analysis
5	Data Visualization	Tools for creating visualizations and reports	IBM Cognos Analytics

| 6 | Flask Application | Web framework for assembling and presenting data | Flask, HTML, CSS, JavaScript |

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	User Authentication	Secure login and access control for users	Authentication libraries (e.g., Flask-Login, OAuth)
2	Real-Time Data Integration	Ability to integrate and display real-time data from social media	WebSocket for real-time updates
3	Customization	Users can customize dashboards and reports	User-friendly interface for customization
4	Export Functionality	Users can export reports in various formats	Export modules for PDF, Excel, CSV, etc.

5	Privacy and Data Security	Data protection and user privacy measures	Encryption, access controls, and secure API connections
6	Scalability	Ability to scale the application for increased data and user load	Load balancing, cloud hosting, and database optimization
7	Responsive Design	Ensuring the application works well on various devices and screen sizes	Responsive web design techniques
8	User Support	Providing help and support for users	User guides, FAQs, and customer support