

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	27 October 2023
Team ID	NM2023TMID03093
Project Name	Quantitative Analysis of Candidates in 2019 Lok Sabha Elections

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Ingestion	Data sources Data quality Data security
FR-2	Data Storage	Data Repository Data Versioning
FR-3	Data Processing	Data Cleaning Data Transformation Text Analysis
FR-4	Quantitative Analysis	Election Prediction Sentiment Analysis Fund Utilization
FR-5	Visualization	Charts Graphs Dashboards
FR-6	User Interface	Query Interface User Authentication Export and Sharing
FR-7	Scalability	Data Scalability Response Time Load Balancing
FR-8	Feedback Loop	User Feedback Real-time Updates

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Performance	The system should provide real-time or near-real-time analysis to handle large volumes of data and user requests efficiently.
NFR-2	Scalability	The system must be scalable to accommodate an increasing amount of election data and users during peak times.

NFR-3	Security	Data security and user privacy must be a priority, with appropriate encryption and access control measures in place.
NFR-4	Reliability	The system should have a high level of uptime and fault tolerance to ensure continuous access to analysis results.
NFR-5	Usability	The user interface should be intuitive and user-friendly, requiring minimal training for users to navigate and understand the analysis.
NFR-6	Data Accuracy	The system must ensure high data accuracy and quality, minimizing errors in data processing and analysis.
NFR-7	Regulatory Compliance	Compliance with data protection and election regulations is crucial to maintain the system's legality and trustworthiness.
NFR-8	Interoperability	The system should be capable of integrating with external data sources and APIs to enhance its functionality and accessibility.
NFR-9	Monitoring and Logging	Comprehensive monitoring and logging tools should be integrated to track system performance and identify issues promptly.
NFR-10	Accessibility	The system should be accessible to users with disabilities, adhering to accessibility standards and guidelines.
NFR-11	Cultural Sensitivity	The system should be culturally sensitive and avoid biases or offensive content in its analysis and presentation.