Project Planning Phase

Technology Stack (Architecture & Stack) Template

Project Name: - Sugarcane Production Analysis

Technical Architecture: -

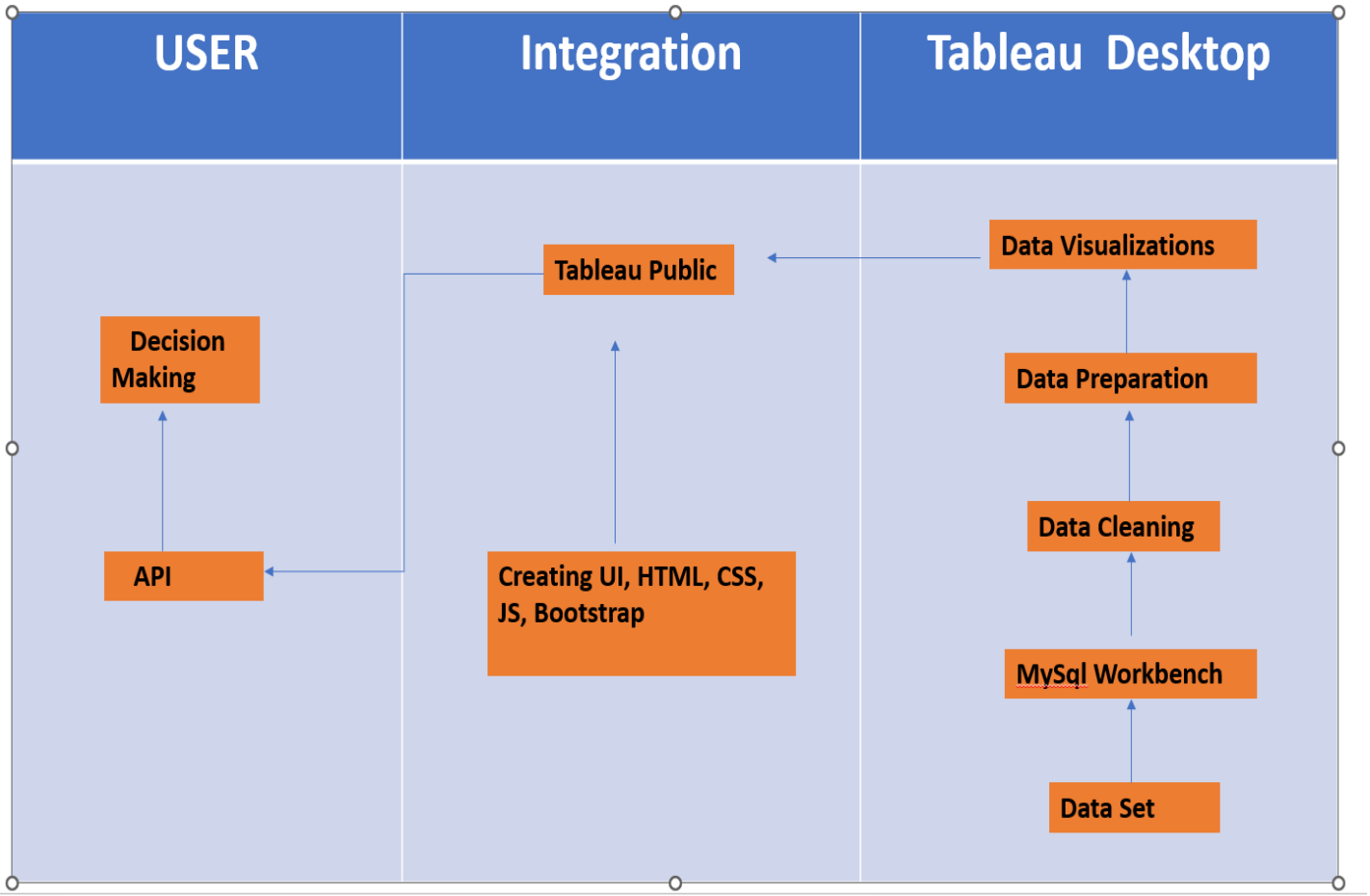

Table-1: Components & Technologies: -

S.No	Component	Description	Technology
1	User Interface	User Interface How users interact with the sugarcane analysis application, e.g., website	HTML, CSS, JavaScript, Bootstrap
2	Application Logic-1	Logic for processing sugarcane production data.	Python
3	Database	Getting real-time data from Kaggle for analysis.	Local storage, MySQL
4	File Storage/Data	File storage in the local system as per the dataset.	Local system, Drives
5	Framework	Framework used to interact with dashboards, reports, and stories.	Tableau Public
6	Machine Learning Algorithm	Algorithm used to filter sugarcane production data.	Regression, Decision Trees
7	Infrastructure (Server/Cloud)	Application deployment on both cloud and local system.	Local system, Cloud Foundry

Table-2: Application Characteristics: -

S.No.	Characteristics	Description	Technology
1	Data Visualization Tool	Utilization of Tableau Desktop as the primary data visualization tool.	Tableau Desktop
2	Security Measures	Implementation of security measures for data visualization like access controls within Tableau.	Tableau Security Features, User Permissions
3	Scalable Analysis	Capability to scale analysis within Tableau for larger datasets or complex visualizations.	Tableau Extracts, Data Source Optimization
4	Availability	Ensuring availability of Tableau workbooks for users to access and analyze sugarcane data.	Tableau Server (for centralized sharing)
5	Performance Optimization	Design considerations for optimizing performance in Tableau.	Tableau Data Extracts, Performance Best Practices