

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

Date	8 Nov 2023
Team ID	592766
Project Name	Walmart Sales For Retail Industry with Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

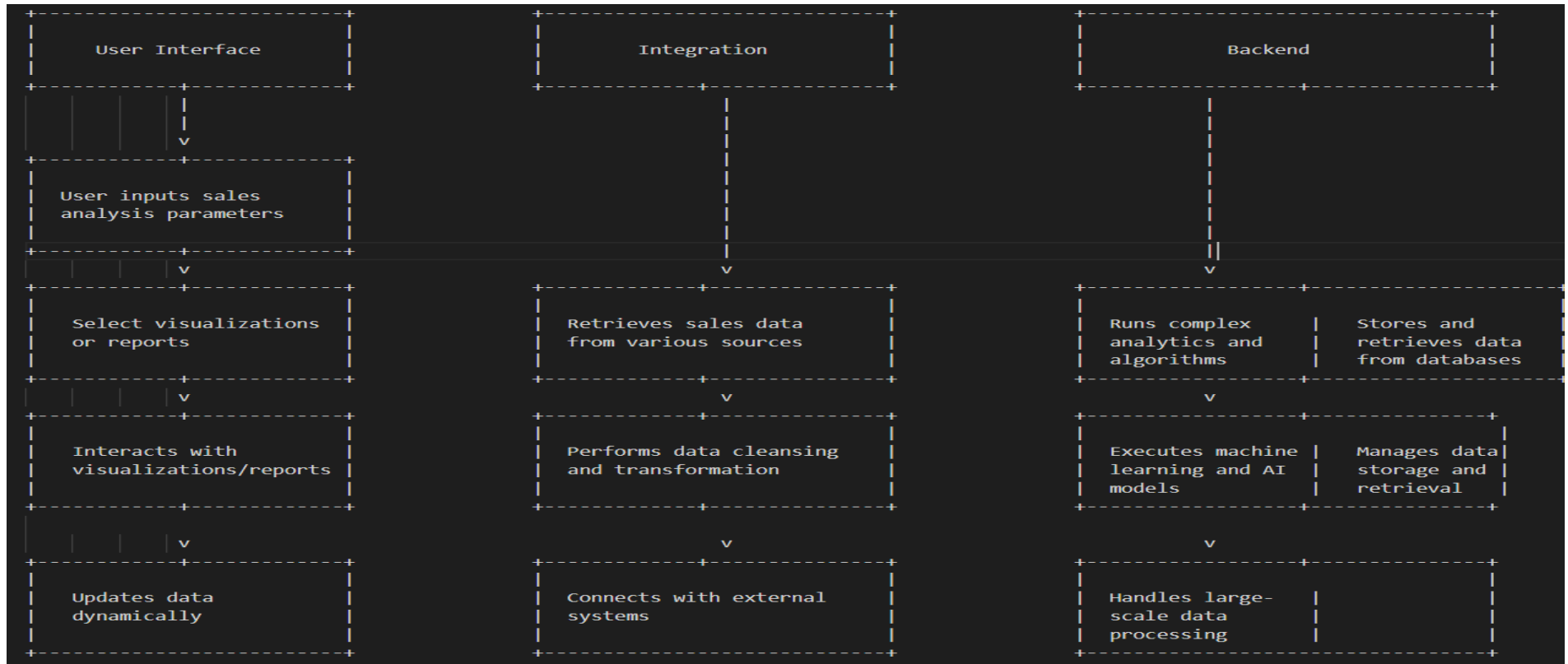


Table-1: Technology Stack Components

S.No	Component	Description	Technology
1.	User Interface	How users interact with the application (Sales Analysis Dashboard)	HTML, CSS, JavaScript/ React Js
2.	Application Logic-1	Logic for processing sales data	Python
3.	Database	Database for storing sales data	MongoDB
4.	File Storage/Data	File storage requirements for storing additional data	Local System, Google Drive, etc.
5.	Framework	Used to create a web application for sales analysis	Python Flask
6.	Advanced Analytics	Implement advanced analytics features for sales forecasting	Machine Learning Libraries (e.g., scikit-learn), Python
7.	Infrastructure (Server/Cloud)	Application deployment on local system/cloud	Local, AWS, Azure, etc.

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python's Flask, scikit-learn, Pandas, NumPy, etc.
2.	Security Implementations	List all security/access controls implemented, use of firewalls, etc.	SSL, Role-based Access Control (RBAC), Encryption
3.	Scalable Architecture	Justify the scalability of architecture (e.g., use of microservices)	Microservices Architecture
4.	Availability	Justify the availability of the application (e.g., use of load balancers, distributed servers, etc.)	Load Balancers, Redundant Servers
5.	Performance	Design considerations for the performance of the application (e.g., number of requests per second, use of cache, use of CDNs, etc.)	Caching Mechanisms, Content Delivery Networks (CDNs)