SmartInternz Externship

Date	27 October 2023
Externship Title	Data Analytics with IBM cognos Analytics
Project Name	Depression: A Common Mental Disorder

Team Members

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

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
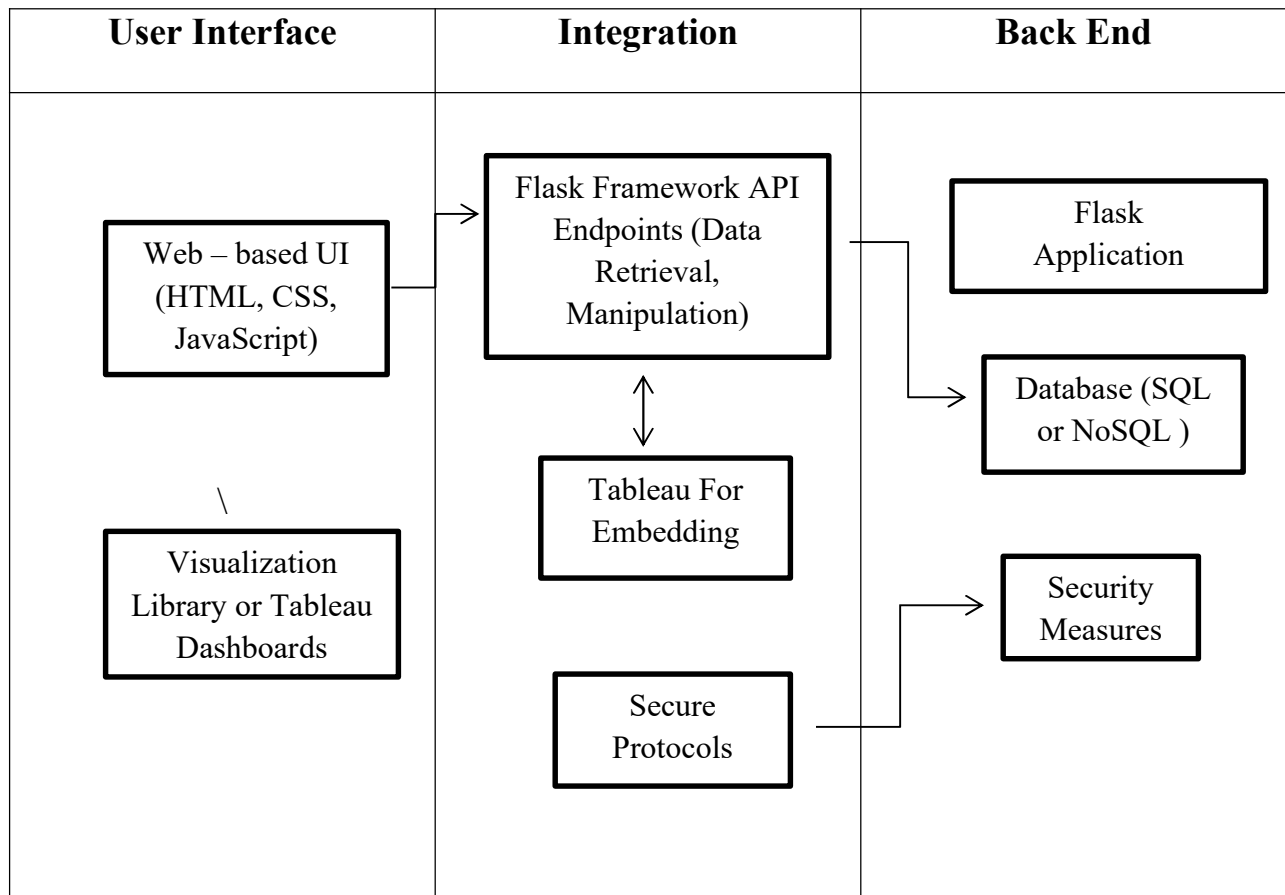
User Interface	Integration	Back End

Web – based UI (HTML, CSS, JavaScript)

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Visualization Library or Tableau Dashboards

Flask Framework API Endpoints (Data Retrieval, Manipulation)

Tableau For Embedding

Secure Protocols

Flask Application

Database (SQL or NoSQL)

Security Measures

Table-1: Components & Technologies:

Component	Description	Technology
User Interface	Front-end layer for user interaction	HTML, CSS, JavaScript
Web – Based UI	User interface designed for web browsers	Responsive design frameworks (e.g., Bootstrap)
Visualizations Library	Library for rendering interactive visualizations	Tableau
Tableau Dashboards	Integrated dashboards for data analysis and visualization	Tableau
Tableau Integration	Embedding visualizations and dashboards within the UI	Tableau JavaScript API, Tableau Server
Back End	Handles data processing, storage, and serves as a bridge between the UI and data sources	Database (e.g., SQL or NoSQL)
Flask Application	Back-end server for processing requests and serving data	Flask
Database	Stores and retrieves data securely	MySQL, NoSQL
Security Measures	Implementation of security protocols for data protection	HTTPS, Authentication, Authorization

Table-2: Application Characteristics:

Characteristic	Description	Technology
User Interface Design	Intuitive design for user interaction and engagement	HTML, CSS, JavaScript
Responsiveness	Ensuring optimal user experience across devices	Bootstrap
Performance	Efficient data processing and rendering	Performance optimization techniques, Caching
Integration	Seamless communication between components	API (Application Programming Interface)
Analytics	Gathering insights from user interactions and system usage	Analytics tools (Tableau)
Security	Protection of data and user authentication	HTTPS, Encryption, Secure protocols
Data Storage	Stores user responses and predefined feedback messages	MySQL
Usability	User-friendly design and intuitive interface	User testing, UI/UX design principles