

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

Date	02 October 2023
Team ID	PNT2022TMID592399
Project Name	Project - Disease Prediction using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Order processing during pandemics for offline mode

Reference: <https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/>

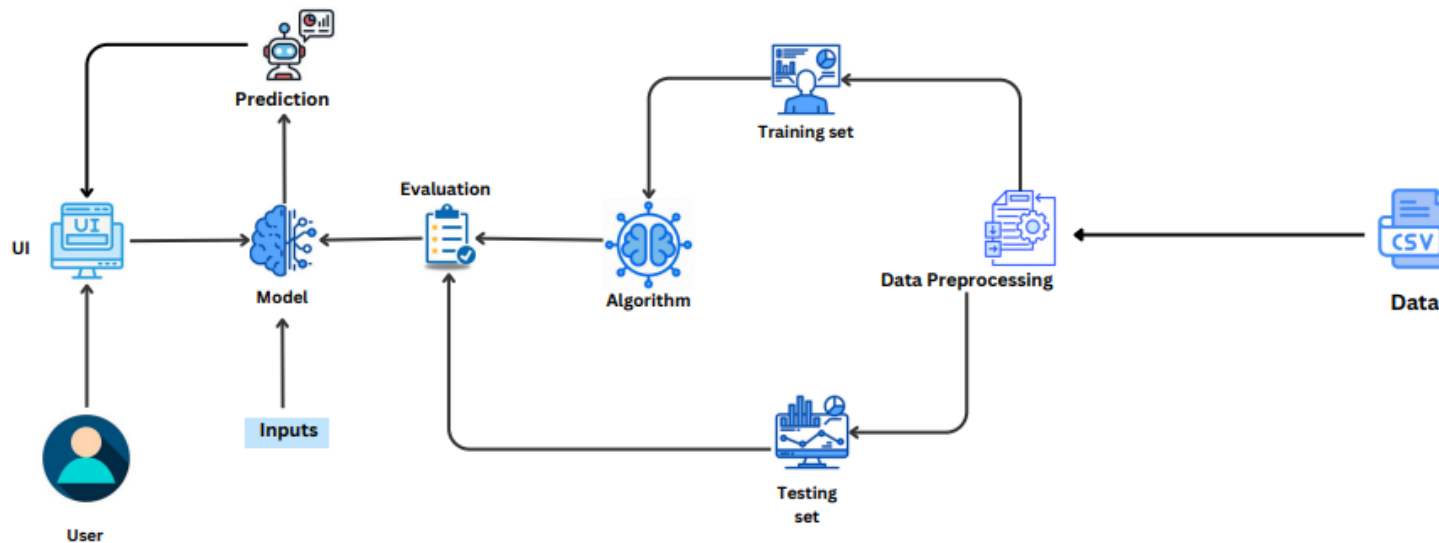


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App etc.	HTML, CSS, JavaScript .
2.	Application Logic-1	Using Python for disease detection with machine learning involves leveraging various libraries and frameworks to build predictive models based on data.	Python
3.	Application Logic-2	Pandas: A Python library for data manipulation and analysis. NumPy: A library for numerical computing in Python. Matplotlib and Seaborn: Libraries for data visualization in Python. scikit-learn: A popular machine learning library in Python that provides simple and efficient tools for data mining and data analysis.	Python Libraries
3.	Application Logic-3	Data Preprocessing: Implement data preprocessing pipelines that clean, transform, and prepare the data for machine learning. Feature Engineering: Extract or engineer relevant features from the user's data that will be used as input for the machine learning model. Feature engineering may include deriving new features, selecting important ones, or transforming data. Extract relevant features from the data to be used as input for the machine learning models. Machine Learning Model Training: Train machine learning models on the preprocessed data. Consider using scalable machine learning platforms like scikit-learn	Machine Learning , Artifical Intelligence

		Machine learning models can provide insights into the factors influencing predictions, aiding healthcare professionals in understanding and trusting the model's recommendations. This is crucial for the adoption of machine learning in clinical settings.	
4.	API	API Layer: Implement an API layer that serves as an interface between the machine learning models and external applications (e.g., web applications).	Flask