

## Project Design Phase-II

### Solution Architecture

Date: 20 October 2023
Team ID: NM2023TMID593076
Project Name Project - Disease Prediction using Machine Learning
Maximum Marks 5 Marks

#### Solution Architecture:

The architecture for a disease prediction machine learning system is a comprehensive framework that combines advanced data analytics and machine learning techniques. It starts with data collection and preprocessing, where relevant healthcare data from sources like medical records, diagnostic tests, and patient history are gathered and cleaned. Feature engineering is crucial to identify meaningful input variables. The architecture incorporates a machine learning pipeline that includes algorithm selection, model design, and training. Rigorous validation and testing are integral, using metrics such as accuracy, precision, and recall. The solution ensures scalability and real-time processing, allowing integration with healthcare systems, electronic health records, and data security measures to protect patient privacy.

#### Solution Architecture Diagram:

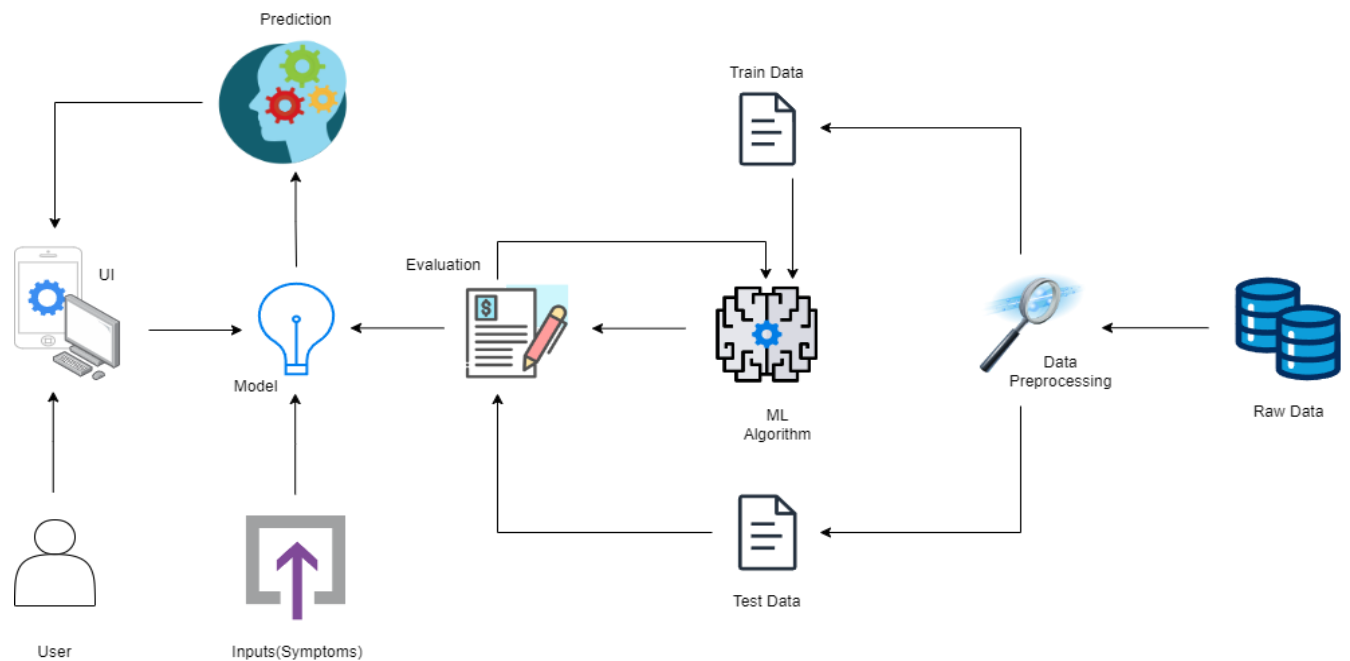


Figure 1: Architecture and data flow for disease prediction model