**Project Initialization and Planning Phase**

| Date | 15 June 2024 |
| --- | --- |
| Team ID | 739729 |
| Project Name | Disease Prediction using Machine Learning |
| Maximum Marks | 3 Marks |

**Define Problem Statements (Customer Problem Statement ):**

The early prediction of diseases can significantly improve patient outcomes, reduce healthcare costs, and enhance the quality of life. With the advent of big data, machine learning, and advanced analytics, there is a growing potential to predict diseases before they manifest clinically. This predictive capability can aid in proactive treatment, preventive measures, and personalized healthcare. In the realm of healthcare, accurately predicting the onset and progression of diseases is crucial for early intervention and improved patient outcomes. Despite advancements in medical technology and data analytics, current methods often lack precision and timeliness, leading to delayed diagnoses and suboptimal treatment plans. This project aims to develop a robust and scalable disease prediction model that leverages patient data, including medical history, genetic information, lifestyle factors, and real-time health indicators, to forecast the likelihood of disease occurrence with high accuracy. The goal is to enhance predictive capabilities, reduce healthcare costs, and ultimately improve patient care through timely and personalized interventions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Problem**  **Statement (PS)** | **I am**  **(Customer)** | **I’m trying to** | **But** | **Because** | **Which makes me feel** |
| **PS-1** | I am a person seeking to predict the likelihood of a disease | apply a disease prediction model to gauge my health status | I have symptoms and no extensive medical history for reference | my lifestyle and health record are generally positive, with no familial disease history | confident in the model’s ability to provide accurate predictions |