Project Initialization and Planning Phase

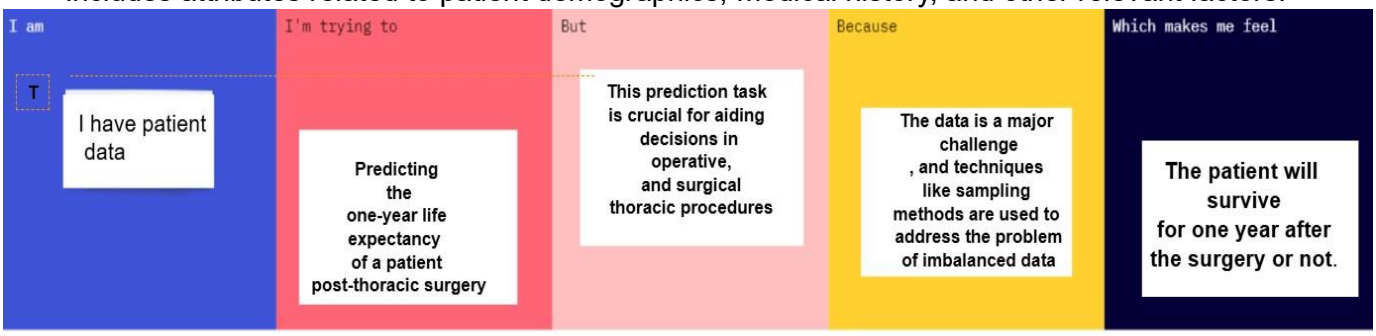
Date	24 March 2024
Team ID	Team-740044
Project Name	One Year life Expectancy Post on Thoracic Surgery using Machine learning
Maximum Marks	3 Marks

Define Problem Statements (Problem Statement Template):

Problem Statement: Given patient data after thoracic surgery, our goal is to predict whether the patient will survive for one year after the surgery or not. Specifically, we want to determine if the patient will:-

Survive: Negative examples (class label 0) for one year after surgery.
Not Survive: Positive examples (class label 1) within the span of one year.

- This prediction task is crucial for aiding decisions in operative, perioperative, and surgical thoracic procedures.
- Researchers have explored various machine learning models, including multi-layer perceptron (MLP), support vector machines (SVM), naïve Bayes, decision trees, and random forests, based on datasets from the University of California Irvine (UCI) Machine Learning repository1. The dataset includes attributes related to patient demographics, medical history, and other relevant factors.



Problem Statement (PS)	I am (Doctor)	I'm trying to	But	Because	Which makes me feel

PS-1	I have patient data	**Predicting the one-year life expectancy of a patient post-thoracic surgery**	**This prediction task is crucial for aiding decisions in operative, perioperative, and surgical thoracic procedures.**	**The data is a major challenge , and techniques like sampling methods are used to address the problem of imbalanced data.**	**The patient will survive for one year after the surgery or not..**