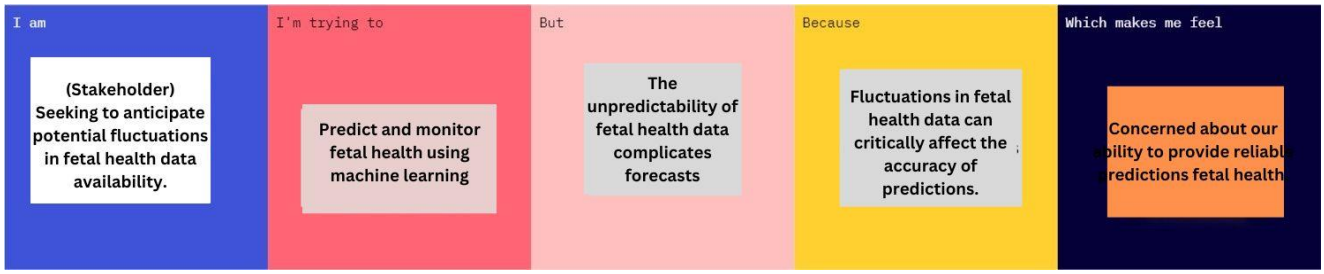
Project Initialization and Planning Phase

Date	5 July 2024
Team ID	739728
Project Name	3D printer material prediction using machine learning
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

Customers in the 3D printing industry often struggle with selecting the appropriate materials for their projects due to the overwhelming variety of options and unique material properties. This complexity leads to challenges such as inconsistent print results, increased waste, and prolonged project timelines. Current tools lack predictive capabilities, forcing users to rely on trial and error, which is both time-consuming and costly. By implementing a machine learning model that analysis project specifications and predicts the best material choices, we can streamline the material selection process. This solution would enhance user satisfaction, reduce material waste, and ultimately improve the efficiency and success of 3D printing.



Problem Statement (PS)	I am (Stakeholder)	I'm trying to	But	Because	Which makes me feel
PS-1	Seeking to anticipate potential fluctuations in 3d printer material performance	Predict and monitor 3d printer material performance using machine learning	The unpredictability of material behaviour and environmental factors complicates forecasts.	Changes in material properties and environmental conditions affect the accuracy of predictions	Concerned about our ability to provide reliable predictions for 3d printer material .