

**Project Design Phase - I**  
**Proposed Solution**

Date	06 May 2023
Team ID	NM2023TMID01905
Project Name	Cancer Mortality & Incidence Rates Classification Using Machine Learning
Maximum Marks	2 Marks

**Proposed Solution:**

S. No.	Parameter	Description
1.	<b>Problem Statement (Problem to be solved)</b>	There are several challenges in accurately measuring and predicting cancer mortality and incidence rates, including issues with data quality, imbalanced data, and challenges with feature selection and overfitting when using machine learning algorithms. The problem statement for this project is to develop accurate and reliable methods for predicting cancer mortality and incidence rates using machine learning algorithms while addressing these challenges. By doing so, this project aims to provide insights that can help inform public health policy and interventions aimed at reducing cancer incidence and mortality rates.
2.	<b>Idea / Solution description</b>	The solution for this project is to develop a predictive model using machine learning algorithms to accurately predict the cancer mortality and incidence rates based on various data sources such as electronic medical records, genomic data, imaging data, and lifestyle data. The project will involve data collection, data pre-processing, feature selection, model development, model training, and validation, model integration, and continuous improvement.
3.	<b>Novelty / Uniqueness</b>	We want to show the expected results as a visualisation. Another innovative feature is the addition of a tab including all cancer-related information, such as cancer awareness, cancer centre information, and contact information, as well as connections to various cancer support groups, carers, and so on. In addition, we would like to have a dashboard displaying statistics on historical mortality and incidence rates.
4.	<b>Social Impact / Customer Satisfaction</b>	Our project has a significant social impact by raising awareness about cancer mortality, incidence, and prevalence, as well as the impact of cancer on society and provides customer satisfaction through elements such as user experience, accuracy, and dependability, among others.
5.	<b>Business Model (Revenue Model)</b>	Our project can generate revenue by displaying advertisements from relevant marketers such as pharmaceutical firms, hospitals, and health insurance providers. The website may charge these advertisers a fee to display their advertisements on the website.
6.	<b>Scalability of the Solution</b>	Highly scalable. Produces accurate results with small and large amount of data. Any number of users may access it and advancement of chatbots can also be introduced.