

Ideation Phase

Brainstorm & Idea Prioritization


Date	29 April 2023
Team ID	NM2023TMID01905
Project Name	Cancer Mortality & Incidence Rates Classification Using Machine Learning
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.




Step-1: Team Gathering, Collaboration and Select the Problem Statement


Template



Brainstorm & idea prioritization


Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

 10 minutes to prepare
 1 hour to collaborate
 2-8 people recommended



Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

 10 minutes

A

Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B

Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.

C

Learn how to use the facilitation tools


Use the Facilitation Superpowers to run a happy and productive session.

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1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

 5 minutes

PROBLEM STATEMENT

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.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

Person 1

Imbalanced data handling	predict incidence rates for specific cancer types	identify trends and patterns in cancer
Collect and preprocess clinical data	assist healthcare professionals in identifying individuals at high risk of developing cancer	a machine learning algorithm that can accurately classify different types of cancer
Use data visualization techniques such as histograms, scatter plots	lifestyle data to build a more comprehensive predictive model of cancer mortality	Choosing appropriate evaluation metrics, such as accuracy, precision

Person 2

providing financial assistance to those who need it.	Identifying risk factors of incidence rate	Analyzing treatment data to identify treatments in reducing cancer mortality rates
Comparing cancer mortality rates between different regions	Preprocessing tasks can include data cleaning, normalization, and handling missing values.	Displaying the results through visualization for better understanding
to optimize the performance of cancer mortality and incidence rate predictions	Analyzing demographic data	Investigating the impact of mental health

Person 3

Demographic data to build a more comprehensive predictive model of cancer mortality	Data preprocessing	clinical data to build a more comprehensive predictive model of cancer mortality
predicting the cancer at the early stages.	should provide support services to cancer patients and their families	Examining the impact of health literacy on cancer mortality rate
should aim to improve access to quality cancer treatment	predict cancer mortality for specific cancer types	Different algorithm that classifies different types of cancer

Person 4

aiming at the factors which makes the cancer at risk	promote policies that protect public health.	collecting the data from various regions
Identifying risk factors for specific types of cancer	should do data processing correctly	regulate environmental factors
accurately classifies the stage of cancer	improve the accuracy of the model.	classification model that predicts whether an individual is at high or low risk of cancer mortality.

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes



Step-3: Idea Prioritization

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

