

## 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

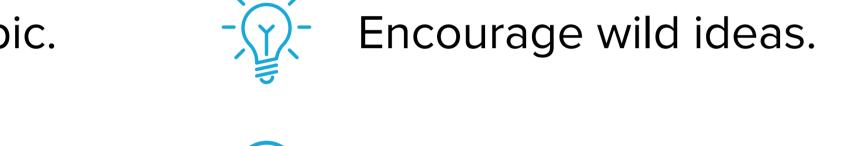
### **PROBLEM**

Thyroid disease affects millions of people worldwide, and accurate diagnosis is crucial for effective challenging, and misdiagnosis is common. Therefore, there is a need to develop a machine learning model that can accurately classify thyroid disease and aid in diagnosis.



### Key rules of brainstorming To run an smooth and productive session

Stay in topic.



Defer judgment.







### Brainstorm

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

① 10 minutes

### Thenmozhi c

data

Selection of learning algorithms, such as Decision Trees, Random Forest, Support Vector Machines, or Neural Networks.

### Akilarani M

# hyperparameters of the selected

undersampling, or

Handling class common in medical knowledge and datasets, by using domain expertise in techniques like oversampling,

Boomika K

the feature

# Dhara P

Providing by using explainable Al methods like SHAP values or

> Feature extraction selection



### 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 and break it up into smaller sub-groups.

20 minutes

# professionals: Partner with medical professionals who specialize in thyroid disease to gather clinical expertise and feedback on the model's

performance

Compare different machine learning algorithms: Compare the performance of different machine learning algorithms to find the best model for the classification task.

### Use deep learning techniques: Explore the use of deep learning techniques, such as Convolutional Neural Networks (CNNs) or Recurrent Neural Networks (RNNs), to classify thyroid disease.

Consider ensemble methods: Use ensemble methods like bagging, boosting, or stacking to improve model performance.



### 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.

① 20 minutes

