

Ideation Phase


Brainstorm & Idea Prioritization Template

Date	26 September 2022
Team ID	PNT2022TMID00708
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:


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

Template



Early Detection of Chronic Kidney Disease


- ✓ Chronic kidney disease (CKD) is a worldwide public health problem. Patients with ESKD consume a disproportionate share of health care resources and experience significant mortality and morbidity and a reduced quality of life.
- ✓ Identifying and managing patients who have early stages of CKD may slow or prevent the progression to ESKD and reduce cardiovascular complications.




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](#)

**Team gathering**

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

**Set the goal**

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

**Learn how to use the facilitation tools**

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

[Open article](#) →

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


Early Detection of Chronic Kidney Disease





Key rules of brainstorming


To run a smooth and productive session


 Stay in topic.

 Defer judgment.

 Go for volume.

 Encourage wild ideas.

 Listen to others.

 If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

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

🕒 10 minutes

PraveenKumar K

Using medical history of patients immediate family and ancestors to predict the kidney disease and the severity

To collect day to day routine of the patient and predict the future chance any kidney disease

Using machine learning techniques to get a accurate results

A handy device to do a urine test to check for albumin from the comfort of home. Albumin is a protein that can pass into the urine when the kidneys are damaged

A handy device to do a blood test that checks how well your kidneys are filtering your blood, called GFR from the comfort of home. GFR stands for glomerular filtration rate.

Sarath S

We could use ph finder to predict how long the patient is effected by kidney disease

We could prescribe specialized doctors to patients near him/her

we could add steps needed to be taken by the users to prevent the further spread of kidney disease.

We could use cite interpretation techniques to find the success rate in curing the disease

creating a website to provide awareness about diagnosis and prevention of kidney disease

Sundareswar N

Machine learning is a powerful tool for understanding and diagnosing chronic kidney disease

Chronic kidney disease can be detected with regular laboratory tests, and some treatment which can slow down the disease progression and risk of cardiovascular disease.

The prediction is necessary to combat with the disease and provide good treatment to the patient.

By using the machine learning techniques like An Colony Optimisation algorithms in CKD used to find the optimal path in chronic kidney disease.

By given medical history data and diagnostic data of a patient, Machine learning and Data Discovery approach can help identify risk of CKD at initial stage.

Ramakrishna puttagunta

To develop a hardware which act as sensor to sense abnormalities in kidney.

Machine learning algorithms can be used to identify patterns for early detection of CKD and it better to understand the disease progression.

By using machine learning to analyze data which provide large information of CKD.

Advanced machine-learning algorithms and Deep Neural Networks were utilized in the process of feature selection and model building.

Machine learning can help us understand which factors are associated with an increased risk of CKD.

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

Category 1: Creating website

We could add steps needed to be taken by the users to prevent the further spread of kidney disease.

Creating a website to provide awareness about diagnosis and prevention of kidney disease.

We could prescribe specialized doctors to patients near him/her.

Category 2: Developing Hardware

To develop a hardware which act as sensor to sense abnormalities in kidney

A handy device to do a blood test that checks how well your kidneys are filtering your blood, called GFR from the comfort of home. GFR stands for glomerular filtration rate.

A handy device to do a urine test to check for albumin from the comfort of home. Albumin is a protein that can pass into the urine when the kidneys are damaged.

Category 3: Laboratory Techniques

We could use ph finder to predict how long the patient is effected by kidney disease.

A handy device to do a urine test to check for albumin from the comfort of home. Albumin is a protein that can pass into the urine when the kidneys are damaged

Chronic kidney disease can be detected with regular laboratory tests, and some treatment which can slow down the disease progression and risk of cardiovascular disease.

A handy device to do a blood test that checks how well your kidneys are filtering your blood, called GFR from the comfort of home. GFR stands for glomerular filtration rate.

Category 4: Using data

Using medical history of patients immediate family and ancestors to predict the kidney disease and the severity.

By given medical history data and diagnostic data of a patient, Machine Learning and Data Discovery approach can help identify risk of CKD at initial stage.

We could use data interpretation techniques to find the success rate in curing the disease.

Category 5: Machine Learning

Using machine learning techniques to get a accurate results.

Machine learning algorithms can be used to identify patterns for early detection of CKD and it better to understand the disease progression

By using the machine learning techniques like An Colony Optimisation algorithms in CKD used to find the optimal path in chronic kidney disease.

Advanced machine-learning algorithms and Deep Neural Networks were utilized in the process of feature selection and model building.

Machine learning is a powerful tool for understanding and diagnosing chronic kidney disease.

By using machine learning to analyze data which provide large information of CKD.

Machine learning can help us understand which factors are associated with an increased risk of CKD.

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

