

Ideation Phase


Brainstorm & Idea Prioritization Template

Date	14 October 2023
Team ID	4.3
Project Name	Network Anomaly Detection
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:




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




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

 **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.


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 **Define your problem statement**

Develop an AI-based network anomaly detection system to enhance cybersecurity by proactively identifying and responding to unusual network behavior. The project's key objectives include creating accurate, real-time detection, reducing false positives, and addressing ethical considerations to safeguard network integrity in the face of evolving cyber threats.

PROBLEM

How might we develop an AI-based network anomaly detection system that proactively identifies and responds to unusual network behavior, ultimately enhancing cybersecurity in the face of evolving cyber threats?

**Key rules of brainstorming**
To run a smooth and productive session

-  Stay in topic.
-  Encourage wild ideas.
-  Defer judgment.
-  Listen to others.
-  Go for volume.
-  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

TIP
You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

Manasa

- Generate ideas around security devices, network devices, sensors, etc. and categorize them by their identification.
- Consider an interface that can be used to monitor and manage the network devices.
- Develop a user interface to monitor and manage the network devices.

Person 5

Lasya

- Apply data science techniques to network devices to detect anomalies.
- Develop a user interface to monitor and manage the network devices.
- Develop a user interface to monitor and manage the network devices.

Person 6

Dhiraj

- Use a tool like networkMiner to analyze network devices and generate insights.
- Develop a user interface to monitor and manage the network devices.
- Develop a user interface to monitor and manage the network devices.

Person 7

Om Nivas

- Develop a user interface to monitor and manage the network devices.
- Develop a user interface to monitor and manage the network devices.
- Develop a user interface to monitor and manage the network devices.

Person 8

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

TIP
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Utilize a combination of unsupervised, semi-supervised, and supervised learning, along with deep learning and reinforcement learning, to create a robust anomaly detection system for network traffic.

Consider factors such as the specific types of anomalies, deployment environment, and security requirements when designing the system to ensure it is effective and secure.

Prioritize user-centric design by creating an intuitive interface and an adaptive system that learns from normal behavior, while also using real-time visualization and advanced techniques like adaptive thresholds to enhance accuracy in anomaly detection.

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

TIP
Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.