

## **Ideation Phase**

### **Brainstorm&Idea Prioritization Template**

Date	27 September 2022
Team ID	PNT2022TMID17971
Project Name	Project – Traffic and Capacity Analytics in Major Ports
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.

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.

#### **Brainstorm & Idea Prioritization for “Traffic and Capacity Analytics in Major Ports”:**

##### **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

🗨️ Share template feedback



### 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](#) →

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### Define your problem statement

The Indian Railways has a capital base of about Rs. 1 lacs crores and is often referred to as the lifeline of the Indian economy. As it includes transportation of bulk freight and long distance passengers, traffic and congestion on rail corridors becomes a major challenge. Data analytics can be applied to visualize freight transportation and congestion on rail corridors across major railway ports to get better insight of the working of port network and to improve the port connectivity.

#### PROBLEM

To visualize freight transportation and congestion on rail corridors across major railway ports to get better insight of the working of port network and to improve the port connectivity.



#### Key rules of brainstorming

To run a smooth and productive session

- 🗨️ Stay in topic.
- 💡 Encourage wild ideas.
- 🗨️ Deferral of judgment.
- 👂 Listen to others.
- 🗨️ Go for volume.
- 👁️ If possible, be visual.

## Step-2: Brainstorm, Idea Listing and Grouping

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### Brainstorm

Ideas related to the improve the port connectivity and to get better insight of the working of port network

⌚ 10 minutes

#### TIP

You can select a sticky note and hit the pencil icon to edit the content or to start drawing!

#### Kanchana

Track the status of goods

To avoid the congestion in future

Congestion may causes delay in arrival of goods

There is lack of sufficient data to predict the congestion

It is difficulty to handle port connectivity to identify the congestion

Track the arrival and departure of each train

Collect the train information whether it is passenger or freights train

Analyse the collected information and produce output

Visualize the predicted results

#### Gokila

Track the arrival and departure of each train

Collect the images of each place in the port

Collect the size of each location in the port

Store the number of railway tracks in each port

If there is a delay in departure delay the next train to arrive

Avoid accidents in the railway track by giving signals

Sometimes accidents happened

Inform the arrival and depature info to all the passengers in the port if there is delay

Use Cnn algorithm, analyze the output and visualise the results

#### DeviPrabha

Choose the Deep Learning algorithm

Collect the dataset

Preprocess the dataset

Train the dataset

Classify the results

Give some new input

Check if the model correctly predict the results or not

Test the model by giving set of new input datum

Visualize the result

#### Shri Subrajah

Inform the arrival and departure info to all the passengers in the port if there are any delays

Then we can avoid congestion

Avoid accidents in the railway track by clearing the people in the tracks and platforms and giving signals

Separate track for frieght train and passengers train

Choose the Deep learning algorithm

Collect the dataset and preprocess it

Create Model and give new inputs

Train and test the model

Visualize the result and analyse the results

### Step-3: Idea Prioritization

**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.

**Technical Aspects**

- A larger dataset is needed for the accurate model
- Create a user friendly GUI that helps to classify the ports

**Social Impacts**

- Congestions are avoided
- Precautions are taken

**Availability of Resources**

- Image datasets are needed for classification
- Enormous data is needed for classifying the image data

**Outcomes**

- Visualize the capacity and to ensure less traffic on the ports.
- Predict delays at the ports due to congestion and makes supply chain efficient.

**4 Prioritize**

Tip: Add a sentence-like label to each note, or make a note about how it relates to the others. What's important is that you know what's important and which are feasible.

20 minutes

**After you collaborate**

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

**Quick add-ons**

- Share the mural**  
Share a view link so for mural with collaborators to keep them in the loop & see the outcomes of the session.
- Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save it as a printout.

**Keep moving forward**

- Strategy blueprint**  
Define the components of a new idea or strategy.  
[Open the template →](#)
- Customer experience journey map**  
Understand customer needs, roles, jobs, and behaviors for an experience.  
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.  
[Open the template →](#)

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Team Members:

M.P.Devi Prabha(9517201904034)  
M.Kanchana(9517201904065)

P.Gokila(9517201904042)  
P.Shri Subrajah(9517201904147)