

Ideation Phase

Brainstorm & Idea Prioritization Template

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| Date | 14 November 2023 |
| Team ID | Team-591961 |
| Project Name | Project - Time Series Analysis For Bitcoin Price Prediction Using Prophet |
| 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.

Reference: <https://www.mural.co/templates/empathy-map-canvas>




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

**Team gathering**
Gandia Vishnu Kalish
Narayana Reddy Gari Siddharth Reddy
Jakka Subramanya Rithwik
Yamasani Punashotham Reddy

**Set the goal**
Time Series Analysis For Bitcoin Price Prediction Using Prophet


**Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →




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


The cryptocurrency market, particularly Bitcoin, is known for its high volatility and dynamic nature. Traders, investors, and financial analysts often face challenges in accurately predicting the future price movements of Bitcoin. Traditional financial models struggle to capture the intricate patterns and sudden shifts in the cryptocurrency market, making it crucial to explore advanced techniques for forecasting.





Key rules of brainstorming


To run an 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!

Vishnu

Creating a ML model to predict

Identify and collect historical Bitcoin price data from reliable sources

Explore the inclusion of additional relevant data sources, such as social media

LSTM networks can be effective in capturing long-term dependencies in time series data.

FB Prophet model best suits for this time series data

Siddharth

Data Preprocessing
clean the historical data to handle missing values, outliers, and normalize or scale the data to ensure consistency

Test the Bitcoin price prediction model in production and make necessary adjustments using evaluation metrics check accuracy of the model

Document the entire process, including data preprocessing step, model training, and evaluation methodologies.

Implement a mechanism for real-time updates, allowing the model to adapt quickly to new data and market conditions

Consider deploying the model on scalable cloud infrastructure to accommodate fluctuations in user demand

Rithwik

Train the model on large dataset to increase accuracy.

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.

Data Collection and Data Preprocessing

Model evaluation and model deployment

Creating a LSTM model based on collected data

Scalability and Real-Time Updates

Step-3: Idea Prioritization

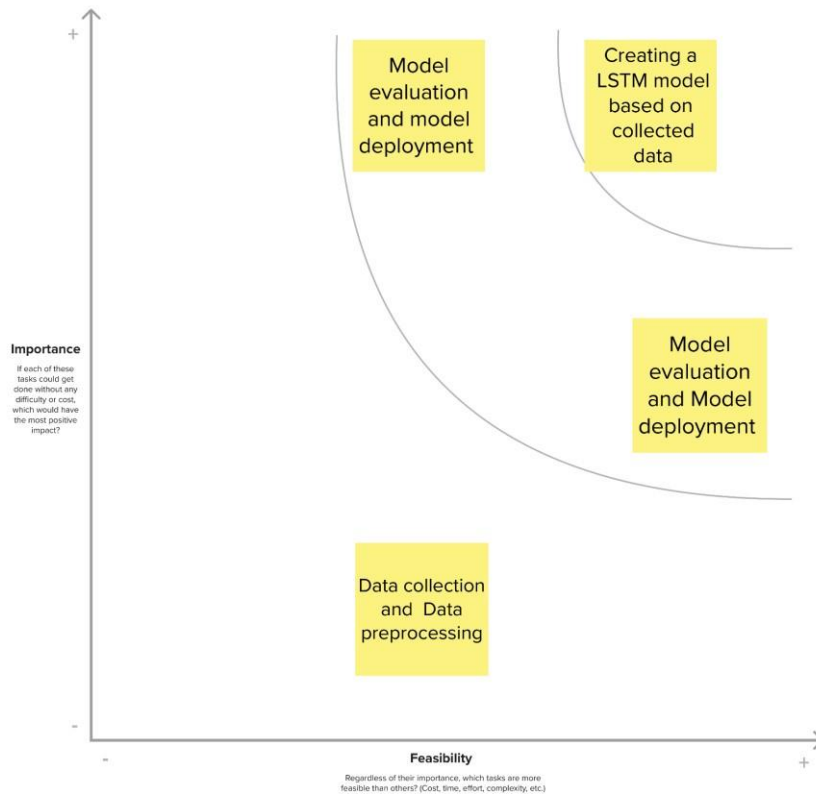
4

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.



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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 to the mural with stakeholders to keep them in the loop about 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 in your drive.

Keep moving forward

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

Link to our Mural:

<https://app.mural.co/t/aiandmlproject0362/m/aiandmlproject0362/1699955679551/eca40dd257036941a6bf2226867ed4c02d097284?sender=u416c2bb3ce424fd41c606101>