

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	10307BD0157A0F3A21544766DE0FB47E
Project Name	Solar Panel Forecasting
Maximum Marks	4 Marks

Solar Panel Forecasting

Brainstorm & Idea Prioritization

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step 1:

**Problem Statement:**

Accurate solar panel forecasting is crucial for optimizing energy production and reducing costs.

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**step 2:**

**Gather a Cross-Functional Team:** Assemble a team with diverse skills and expertise in areas like data analytics, solar energy, data engineering, and software development. This team will be responsible for brainstorming and idea prioritization.

Team Members:

- Data Scientists
- Solar Energy Experts
- Data Engineers
- Software Developers
- Project Manager

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**Generate Ideas\*\*:**

Conduct brainstorming sessions with the team to generate a wide range of ideas for solar panel forecasting. Encourage creativity and consider various approaches. Document these ideas in a structured manner.

Idea ID	Idea Description
1	Machine learning models for solar panel forecasting
2	Weather data integration for accurate predictions
3	IoT sensor data utilization
4	Historical data analysis for pattern recognition

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**Idea Prioritization\*\*:**

Prioritize the generated ideas using a structured framework, such as a decision matrix, to evaluate each idea based on criteria like feasibility, potential impact, and cost.

Idea ID	Feasibility (1-5)	Impact (1-5)	Cost (1-5)	Total Score
1	4	4	3	11
3	3	3	2	8
3	3	3	2	8
4	4	3	3	10

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**Select Top Ideas:** Based on the total score, select the top ideas for solar panel forecasting. These are the ideas that have the highest potential and feasibility.

Idea ID	Idea Description
2	Weather data integration for accurate predictions
1	machine learning models for solar panel forecasting

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**Detailed Planning:**

Develop a detailed plan for the selected ideas, including the specific algorithms, data sources, and tools required for implementation.

idea	detailed plan
2	<ul style="list-style-type: none"><li>Identify relevant weather data sources</li><li>Develop data integration pipeline</li><li>Build predictive models using historical data</li></ul>
1	<ul style="list-style-type: none"><li>Explore different machine learning algorithms</li><li>Collect and preprocess solar panel data</li><li>Implement and train the chosen model</li></ul>

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**Execution:** Begin implementing the selected ideas according to the detailed plan. This involves data collection, model development, and integration with existing systems.

**Monitoring and Evaluation:** Continuously monitor the progress and evaluate the performance of the forecasting models. Adjust the approach as needed.

**Documentation:** Keep comprehensive documentation of the entire process for future reference and to ensure knowledge transfer within the team.

**Iterate and Improve:** As you gain more insights and data, iterate on the models and the forecasting process to improve accuracy and efficiency.

This structured process helps ensure that you systematically identify and prioritize the best ideas for solar panel forecasting using data analytics while also providing a visual representation of each step in the form of tables and images.



