

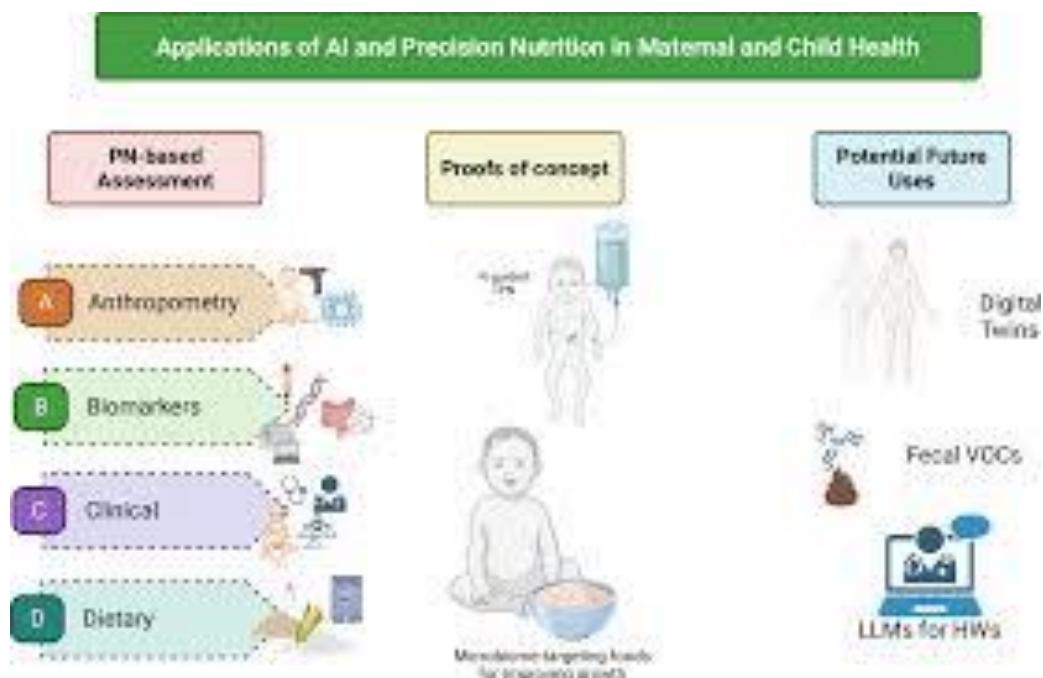
## Ideation Phase

### Brainstorm & Idea Prioritization

|               |  |
|---------------|--|
| Date          | 15 February 2026                             |
| Team ID       | LTVIP2026TMIDS66228                          |
| Project Name  | Advancing Nutrition Science through GeminiAI |
| Maximum Marks | 4 Marks                                      |

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

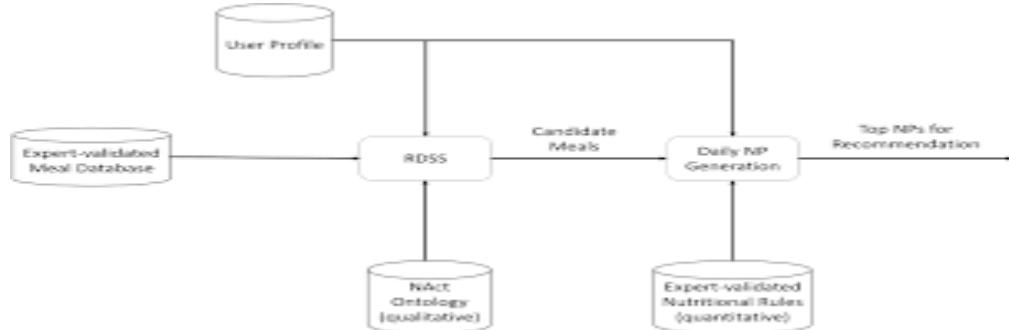
The team discussed challenges in modern nutrition management. Many individuals struggle to understand nutritional values, plan balanced meals, and access affordable nutrition guidance. After evaluation, we selected the problem statement: 'How can Generative AI improve personalized nutrition guidance and provide accurate dietary insights in real time?'



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

##### Ideas Generated:

- AI-based nutritional information analyzer using Gemini API
- Personalized weekly meal planner
- Barcode-based food scanner
- Virtual AI nutrition coach
- Streamlit interactive web application
- LangChain-based LLM integration



After grouping similar concepts, we finalized three core modules: Tailored Meal Planning, Dynamic Nutritional Insights, and Virtual Nutrition Coaching.

### Step-3: Idea Prioritization

The selected idea was prioritized based on:

1. High social impact in promoting healthy lifestyles
2. Feasibility using Google Gemini API and Vertex AI
3. Scalable deployment using Streamlit
4. Advanced conversational capabilities using LangChain

Thus, 'Advancing Nutrition Science through Gemini AI' was finalized as the project concept.



### References:

Google Cloud. (n.d.). Generative AI on Vertex AI: Learn resources. <https://cloud.google.com/vertex-ai/docs/generative-ai/learn-resources>

Google AI. (n.d.). Gemini API cookbook. <https://ai.google.dev/gemini-api/cookbook>

Streamlit. (n.d.). Streamlit documentation. <https://docs.streamlit.io/>

LangChain. (n.d.). Introduction to LangChain.

[https://python.langchain.com/v0.1/docs/get\\_started/introduction/](https://python.langchain.com/v0.1/docs/get_started/introduction/)