**Ideation Phase**

**Brainstorm & Idea Prioritization Template**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID56240 |
| Project Name | **ShopSmart** |
| 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/brainstorm-and-idea-prioritization>

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

Graphical user interface, application

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* **Objective**: Get the team together to collaborate and **identify a key problem**.
* **Purpose**: Ensures everyone is aligned and that a meaningful, well-scoped challenge is selected before ideation begins.
* **Usage in Your Project**:
  + Your selected problem: **Automated classification of pollen grains** is a valid, real-world problem spanning multiple domains like healthcare, environment, and agriculture.

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

Graphical user interface, treemap chart

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* **Objective**: Encourage **free thinking**, collect a **diverse range of ideas**, and **group similar ideas** to form structured categories.
* **Best Practices**:
  + No judgment of ideas initially
  + Aim for quantity first, then quality
  + Visual or written clustering of related ideas

**Usage in Your Project (ShopSmart)**

You might have brainstormed the following ideas:

* ✅ **Integrating Product Search with Auto-Suggestions**  
  Enhances user experience by suggesting products as they type in the search bar.
* ✅ **Add to Cart Functionality**  
  Allows users to seamlessly add products to their cart for future checkout.
* ✅ **Cart and Payment Integration**  
  Users can view their cart, modify it, and proceed to secure payment.
* ✅ **Use of MongoDB for Product and Cart Storage**  
  NoSQL database allows scalable and flexible product and user data management.
* ✅ **User Authentication with Firebase or JWT**  
  Secure login/signup to personalize user experience.
* ✅ **React Frontend + Node.js/Express Backend**  
  Fast and responsive frontend with a REST API backend for better scalability.

**Step-3: Idea Prioritization**

**Diagram

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**Objective**: From the pool of brainstormed ideas, **choose the most viable and impactful** ones for execution.

**Techniques to use:**  
• Impact vs. Effort Matrix  
• MoSCoW (Must have, Should have, Could have, Won’t have)  
• Dot Voting (team votes on top ideas)

**Usage in Your Project:**  
• Prioritized ideas might include:  
o Build a product recommendation system using ML (high impact, feasible)  
o Use Flask instead of Django (lightweight and faster to set up)  
o Focus on electronics and clothing categories initially  
o Integrate search bar with auto-suggestions for better user experience  
o Implement cart and payment functionality as core features  
o Use Firebase for authentication and MongoDB for product/cart storage