Ideation Phase
Brainstorm & Idea Prioritization

Date	19 February 2026
Team ID	LTVIP2026TMIDS87679
Project Name	Steamy Pot – Smart Food Delivery Platform
Maximum Marks	4 Marks

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

The team convened to identify and analyze challenges associated with existing online food delivery systems. A structured discussion was conducted to evaluate the operational, technical, and user-experience limitations of current market platforms such as Swiggy and Zomato. The objective was to identify a problem statement that is both technically significant and practically relevant.

After detailed discussion and collaborative evaluation, the team identified the following core problem:

Traditional food delivery systems encounter substantial challenges in maintaining real-time inventory synchronization, efficient order routing, and data consistency across distributed system components. Furthermore, the coordination between multiple stakeholders — including users, restaurants, delivery drivers, and administrators — often leads to operational bottlenecks.

Additionally, users traveling to unfamiliar locations experience difficulty in identifying reliable and trusted restaurants due to the heavy reliance on generic public ratings rather than personalized or socially trusted recommendations.

Based on these findings, the team selected the development of a secure, scalable, and multi-role food delivery platform that addresses both system-level inefficiencies and personalization gaps.

Step-2: Brainstorm, Idea Listing and Grouping

A structured brainstorming session was conducted to generate diverse solution approaches. Emphasis was placed on encouraging open discussion and evaluating ideas based on innovation, feasibility, scalability, and real-world applicability.

Idea Listing

The following ideas were proposed during the brainstorming session:

1. Development of a full-stack food ordering platform
2. Implementation of a multi-role architecture (User, Restaurant, Delivery Driver, Admin)
3. Integration of real-time order tracking
4. Persistent cart management system
5. Role-based access control using secure authentication

6. Structured delivery partner workflow
7. Event-driven backend architecture
8. Social-aware restaurant recommendation mechanism
9. Order lifecycle state management
10. Secure authentication using JWT and password hashing

Idea Grouping

For clarity and structured evaluation, the ideas were categorized into thematic groups:

Technical Architecture Enhancements

• Event-driven backend design
• Order lifecycle state machine
• Role-based access control
• Data consistency and synchronization mechanisms
• Secure authentication and authorization

User Experience Improvements

• Persistent cart system
• Location-based restaurant filtering
• Social-based trusted recommendation system
• Personalized restaurant discovery

Operational Optimization

• Intelligent driver assignment logic
• Order routing efficiency
• Administrative approval and monitoring workflows

Step-3: Idea Prioritization

The generated ideas were systematically evaluated based on the following criteria:

• Technical feasibility
• Level of innovation
• Scalability potential
• Impact on user experience
• Implementation complexity

Based on this assessment, the following ideas were prioritized for implementation.

Core High-Priority Features

• Multi-role system architecture (User, Restaurant, Delivery Driver, Admin)
• Secure JWT-based authentication and authorization
• Structured order lifecycle management
• Persistent cart management system
• Intelligent order-to-driver assignment mechanism

Innovative Differentiating Feature

The team identified the Social-Aware Restaurant Recommendation System as a key innovation.

This feature proposes a contact-consent-based mechanism that analyzes anonymized ordering patterns within a user's trusted network to suggest restaurants in unfamiliar locations. This approach enhances personalization and increases user confidence while maintaining strict privacy safeguards.

Future Scope Considerations

The following features were identified as potential future enhancements:

- Real-time GPS-based delivery tracking
- AI-driven recommendation algorithms
- Payment gateway integration
- Advanced analytics dashboard
- Dynamic pricing mechanisms

Final Selected Concept

The final selected project, titled *Steamy Pot – Smart Food Delivery Platform*, is a scalable, secure, and modular system designed to address real-world operational inefficiencies in food delivery platforms. The system integrates robust backend architecture with innovative personalization strategies to improve user trust, system reliability, and overall platform efficiency.