Planning Logic Document: SB Foods (OrderOnTheGo)

1. Project Overview

SB Foods is an on-demand food ordering platform designed to provide a seamless digital experience for customers, restaurant partners, and administrators. The system follows a modular **MERN** (MongoDB, Express, React, Node) stack to ensure scalability and efficiency.

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2. Project Architecture & Development Environment

The project structure is split into two main directories to maintain a clean separation of concerns:

- **Frontend (Client)**: Built using **React.js** for a dynamic user interface. It includes components for authentication, product discovery, and role-based dashboards.
- **Backend (Server)**: A **Node.js** and **Express.js** server running on **Port 6001**.
- **Database**: **MongoDB** is used for persistent storage, managed via the **Mongoose** ODM.
- **Version Control**: Managed via **Git** with the repository hosted on GitHub.

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3. Database Schema Logic

Based on the **ER Diagram**, the database is organized into six primary collections:

1. **User Schema**: Stores username, email, and hashed password using **Bcrypt**.
2. **Product Schema**: Contains food details such as title, price, category, and restaurantId.
3. **Restaurant Schema**: Includes restaurant titles, addresses, and their specific menu arrays.
4. **Cart Schema**: Tracks items selected by users, identified by userId.
5. **Orders Schema**: Stores finalized transactions with fields for paymentMethod and orderStatus.
6. **Admin Schema**: Manages global settings like categories and promotedRestaurants.

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4. Agile Planning & Estimation Logic

Following the **Planning logic.docx** guidelines, the project effort is measured in **Story Points** using the Fibonacci series (1, 2, 3, 5, 8) .

- **Epic**: A large project requirement, such as "Order Fulfillment," that spans multiple tasks.
- **User Story**: A small, functional task (e.g., "As a user, I can add an item to the cart").
- **Estimation Strategy**:
    - **3 Points**: Moderate tasks (e.g., User Login/Registration).
    - **5 Points**: Difficult tasks (e.g., Developing the Admin Dashboard) .
    - **8 Points**: Complex integrations (e.g., Partner Inventory Management).

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5. Velocity & Sprint Tracking

Progress is measured by calculating the team's **Velocity**.

- **Total Project Effort**: 32 Story Points.
- **Sprint Duration**: 10 Days.
- **Velocity Calculation**: 32 Points/2 Sprints = 16 Story Points per Sprint .
- **Average Velocity (AV)**: 16 Points/10 Days = 1.6 points per day .

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6. Operational Flow

1. **User Flow**: Register -> Login -> Browse Catalog -> Add to Cart -> Checkout.
2. **Restaurant Flow**: Authenticate -> Admin Approval -> Manage Menu.
3. **Admin Flow**: Login -> Access Dashboard -> Moderate Users & Orders.