### Dimensional Model for Fufu Republic

#### Business Process:

**Sales Analysis**  
The goal is to analyze the restaurant's sales to track performance across branches and optimize operations.

#### Business Question:

* What are the total sales for Fufu Republic across branches over a given period, broken down by payment method, menu item, and order type (dine-in, take-out, online)?

#### Grain:

**The finest level of detail** to store in this fact table is **individual transactions (orders)**. Each row represents a single sale.

#### Fact Table: Sales\_Fact

The fact table stores **measurable data** (metrics) related to the sales process. In this case, the main measure is the total amount of a transaction.

* **Order ID** (PK)
* **Date of Order**
* **Branch ID** (FK from Branch Dimension)
* **Menu Item ID** (FK from Menu Item Dimension)
* **Payment Method ID** (FK from Payment Method Dimension)
* **Order Type** (Dine-in, Take-out, Online)
* **Quantity Sold**
* **Total Sale Amount**

#### Dimension Tables:

Each dimension table provides **descriptive information** related to the fact data.

**Branch Dimension**

* + **Branch ID** (PK)
  + **Branch Name**
  + **Location**
  + **Manager**

**Customer Dimension**

* + **Customer ID** (PK)
  + **Name**
  + **Email**
  + **Segment** (e.g., VIP, Regular)

**Menu Item Dimension**

* + **Menu Item ID** (PK)
  + **Item Name**
  + **Category** (e.g., Beverage, Main Course)
  + **Price**
  + **Availability** (Available/Unavailable)

**Payment Method Dimension**

* + **Payment Method ID** (PK)
  + **Payment Type** (e.g., Cash, Debit Card)
  + **Provider** (e.g., Nomba, Paystack)

**Time Dimension**

* + **Date ID** (PK)
  + **Day**
  + **Month**
  + **Year**

#### Model Overview:

* **Fact Table:** Captures sales data, which is the total revenue for each order.
* **Dimensions:** Provide context to the facts, such as what item was sold, where, and how.
* **Grain:** At the transaction level.

This model allows Fufu Republic to answer critical questions, such as:

* Which branches are generating the most revenue?
* What are the most popular menu items?
* Which payment methods are preferred?
* How do order types (dine-in, take-out, online) affect sales across locations?