Create 10 tables. Each table is a excel/csv file. Should have 10 files in total.

1. The business is food and beverages (mid-size company). Generate tables around this idea.
2. Have at least 3+ dimension tables and 3+ fact tables. Indicate which table is which.
3. Each table should have around 100 rows of values.
4. Each table should have around 5 to 10 attributes/columns. As long as they are straightforward.
5. These tables should have primary keys/foreign keys to join. They MUST HAVE someway to connect to each other, through a table or not. All tables must be relevant.
6. Some ideas for tables can be: customer table, transaction table, store location, store income/balance, vendors for supplies, Employees, Employee Timecard, Employee Salary… These ideas must be relevant to each other.

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Store\_Dim:

Analysis can be done:

**1. Sales Performance Analysis**

* **Total Sales by Product:** Identify best-selling products by summing up the Total\_Sale\_Amount from the Sales\_Fact table by Product\_ID. This could reveal top products, enabling inventory and marketing adjustments.
* **Sales by Store Location:** Sum Total\_Sale\_Amount by Store\_ID to understand which locations are most profitable, helping to inform location-based strategies.

**2. Customer Analysis**

* **Customer Demographics:** Explore demographics (age, gender) in the Customer\_Dim table, combined with purchase patterns from the Sales\_Fact table, to create customer segments.
* **Customer Purchase Frequency:** Calculate the number of transactions per customer over time. This could reveal high-frequency customers for loyalty programs or targeted marketing.

**3. Employee Analysis**

* **Employee Efficiency:** Using the Employee\_Timecard\_Fact table, assess hours worked relative to sales at each store. This could help evaluate staffing efficiency, particularly for peak sales times.
* **Payroll and Labor Cost Analysis:** Combine Employee\_Salary and Employee\_Timecard\_Fact data to calculate labor costs, then compare these with store revenues to determine labor cost efficiency.

**4. Inventory Management**

* **Stock Analysis:** Analyze the Inventory\_Fact table for stock levels, stock received, and stock sold by product. This can indicate which products require frequent restocking and help optimize supply chain management.
* **Inventory Turnover Rate:** Calculate inventory turnover by product or category to assess how quickly items are sold and replaced, which helps in reducing holding costs.

**5. Expense and Profitability Analysis**

* **Expense Tracking by Store:** Break down expenses from the Expense\_Fact table by store and expense type to see where funds are allocated (rent, utilities, etc.) and identify potential savings.
* **Profitability by Store:** Combine total revenue (Revenue\_Fact) and total expenses (Expense\_Fact) by store to calculate net profit, revealing the profitability of each store.

**6. Trend Analysis**

* **Sales and Revenue Trends:** By analyzing monthly sales and revenue over time, you can identify seasonal trends or monthly growth rates.
* **Expense Patterns Over Time:** Analyze expenses monthly to spot cost fluctuations, which could aid in budgeting and forecasting.

**7. Supply Chain Analysis**

* **Supplier Performance:** By matching Supplier\_ID in Product\_Dim with Inventory\_Fact, you can see which suppliers provide products that are in high demand, potentially allowing for volume discounts or preferred partnerships.
* **Stock-out Analysis:** Track low stock levels or stock-outs to ensure critical items are always available, improving customer satisfaction.

Each analysis helps uncover opportunities for efficiency, customer engagement, and profitability improvements. Let me know if you’d like to dive deeper into any specific type of analysis!