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Data Migration Docket

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ROS – Data Migration Docket

Table of Contents

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Data Migration Docket

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Project Overview

This project aims to create a robust and realistic synthetic dataset for a Restaurant Operations System (ROS). The primary purpose is to provide a comprehensive data environment suitable for various uses, including system testing, data analysis and reporting, and demonstration or training. The scope encompasses the generation of **15 interconnected data tables**, covering core aspects from client and user management to daily restaurant operations and financial transactions over a full year.

Tables

Clients

Brief Description: The Client table serves as a pivotal repository for information concerning individual clients engaged with the restaurant business, including their legal and business names, active status, and activation/inactivation dates.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System/ Mapping
1	client_id	Integer	Generated	Unique identifier for each client	Independent attribute
2	legal_name	String	Faker	Client's legal name	Independent attribute
3	business_name	String	Faker	Client's business name	Independent attribute
4	is_active	Boolean	Rule	10% of clients (3 clients) must	Independent attribute
5	activated_date	Date	Generated	Date of activation	Independent attribute
6	inactivated_date	Date	Rule	Only inactive clients have an	Independent attribute

Restaurants

Brief Description: This table lists all the individual restaurants managed by the clients, including their assignment to clients and countries.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System/ Mapping Rules
1	id	Integer	Generated	Unique ID for each restaurant (PK)	Independent attribute
2	name	String	Faker	Name of the restaurant	Independent attribute
3	legal_name	String	Faker	Legal name of the restaurant	Independent attribute
4	currency_id	Integer	Rule	Foreign key	Independent attribute
5	client_id	Integer	Rule	Foreign key	From Client table mapped to client_id
6	is_franchise	Boolean	Generated	Indicates if it's a franchise	Independent attribute
7	country_code	String	Rule	80% of restaurants should be assigned to	Independent attribute

Subscriptions

Brief Description: This table defines the different subscription plans available in the ROS, including their features, costs, and user limits.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System/ Mapping
1	subscription_id	Integer	Manual	Unique ID for subscriptions (PK)	Independent attribute
2	display_name	String	Manual	Display name of the plan	Independent attribute
3	subscription_name	String	Manual	Plan's name	Independent attribute
4	product_code	String	Manual	Product code	**Independent attribute**
5	subscription_active	Boolean	Manual	Active status of subscription	**Independent attribute**
6	subscription_code	String	Manual	Subscription code	**Independent attribute**
7	description	String	Manual	Plan description	**Independent attribute**
8	cost	Decimal	Manual	Cost of the plan	**Independent attribute**
9	no_of_users	Integer	Manual	User limit for the plan	**Independent attribute**
10	frequency	String	Manual	Billing frequency	**Independent attribute**

Users Brief Description: This table contains information about the individual users who interact with the ROS, including their personal details, assigned roles, departments, and linked restaurant/client/subscription.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source system / Mapping Rules
1	user_id	Integer	Generated	Unique user ID (PK)	**Independent attribute**
2	first_name	String	Faker	User's first name	**Independent attribute**
3	last_name	String	Faker	User's last name	**Independent attribute**
4	email	String	Faker	User's email address	**Independent attribute**
5	phone	String	Faker	User's phone number	**Independent attribute**
6	role	Integer	Rule	Each user must have exactly one role and one department assigned.	From Role Table Mapped to role
7	department	Integer	Rule	Each user must have exactly one role and one department assigned.	From Department Table Mapped to department
8	restaurant_id	Integer	Rule	Each user must be linked to a restaurant (and therefore to that restaurant's client).	From Restaurant Table Mapped to restaurant_id
9	client_id	Integer	Rule	Each user must have exactly one role and one department assigned.	From Client Table Mapped to client_id
10	subscription	Integer	Rule	Every user must belong to a subscription; do not exceed the subscription's user limit.	Taken from Subscription Table Mapped to subscription

Currencies

Brief Description: A master data table defining the different currencies supported by the system.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System / Mapping Rule
1	currency_id	Integer	Manual	Unique currency ID (PK)	**Independent attribute**
2	currency_type	String	Manual	Type of currency (e.g., GBP, INR)	**Independent attribute**
3	currency_symbol	String	Manual	Symbol (e.g., £, ₹)	**Independent attribute**

Departments

Brief Description: A master data table listing the various departments within the organization or client restaurants.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System /
1	dep_id	Integer	Manual	Unique department	**Independent attribute**
2	department_ name	String	Manual	Name of the department	**Independent attribute**
3	department_ code	String	Manual	Department code	**Independent attribute**

Roles

Brief Description: A master data table defining the different roles within the system, often associated with specific permissions and responsibilities.

Sl No.	Column Name	Data Type	Formula/source	Description	Source System/Mapping Rules
1	role_id	Integer	Manual	Unique role ID (PK)	Independent attribute
2	name	String	Manual	Name of the role	Independent attribute
3	guard_name	String	Manual	Guard name for permissions	Independent attribute
4	created_at	Datetime	Manual	Timestamp of creation	Independent attribute
5	updated_at	Datetime	Manual	Timestamp of last update	Independent attribute

Countries

Brief Description: A master data table providing details about countries, used for regional specific data like tax rates.

Sl No.	Column Name	Data Type	Formula/ Source	Description	Source System /
1	country_name	String	Manual	Full country name (PK)	**Independent attribute**
2	country_code	String	Manual	3-letter country code	**Independent attribute**
3	country_alpha 2_code	String	Manual	2-letter country code	**Independent attribute**
4	lang_code	String	Manual	Language code	**Independent attribute**
5	lang_name	String	Manual	Language name	**Independent attribute**

Cash_up

Brief Description: This table records the daily financial r e conciliation summaries for each restaurant, tracking cash flow and discrepancies.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rule
1	cash_up_id	Integer	Generated	Unique ID for cash-up records (PK)	Independent attribute
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurant Table Mapped
3	bod_amount	Decimal	Python Script (Inter-day Financial	Beginning of day amount	Independent attribute
4	sales_achieved	Decimal	Python Script (Aggregated from Orders)	Total sales for the day	Independent attribute
5	expenses_occurred	Decimal	Python Script (Aggregated from	Total expenses for the day	Independent attribute
6	tax_amount	Decimal	Rule	tax charge and delivery charges from	Independent attribute
7	delivery_charges	Decimal	Rule	Total delivery charges (from Sales)	Independent attribute
8	eod_amount	Decimal	Python Script (Inter-day Financial	End of day amount	Independent attribute
9	match	Boolean	Python Script (Comparison Logic)	Does EOD match calculations?	Independent attribute
10	banking_id	Integer	FK	ID of the banking record	From banking_info Table Mapped
11	cash_up_date	Date	Generated	Date of the cash-up	Independent attribute
12	Cashup_status	String	Rule	FOD = BOD + sales – expenses –	Independent attribute

Sales

Brief Description: This table contains daily aggregated sales data for each restaurant, computed from individual orders.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source system/Mapping rule
1	sales_id	Integer	Generated	Unique sales transaction ID (PK)	Independent attribute
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurants Table mapped to
3	credited_tip	Decimal	Generated	Tip amount from credit cards	Independent attribute
4	drinks_payment	Decimal	Python Script (Aggregated from Orders)	Daily total payment for drinks	Independent attribute
5	food_payment	Decimal	Python Script (Aggregated from Orders)	Daily total payment for food	Independent attribute
6	other_payment	Decimal	Python Script (Aggregated from Orders)	Daily total other payment	Independent attribute
7	service_charge	Decimal	Python Script (Aggregated from Orders)	Daily total service charges	Independent attribute
8	delivery_charges	Decimal	Python Script (Aggregated from Orders)	Daily total delivery charges	Independent attribute
9	sales_Date	Date	Generated	Date of the sales record	Independent attribute

TaxInfo Brief Description: A master data table defining different tax types and their applicable percentage by country

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rules
1	tax_type_id	Integer	Manual	Unique tax type ID (PK)	Independent attribute
2	country_name	String	FK	Country where tax applies	From Countries Table Mapped to
3	tax_type	String	Manual	Type of tax (e.g., VAT, GST)	Independent attribute
4	tax_percentage	Decimal	Manual	Tax rate	Independent attribute

Orders Brief Description: This table captures details of every individual customer order, including amounts, types, and associated charges.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rules
1	order_id	Integer	Generated	Unique order ID (PK)	Independent attribute
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurant Table Mapped to restaurant_id
3	order_date	Date	Generated	Date of the order	From Sales Table Mapped to order_date
4	order_time	Time	Generated	Time of the order	Independent attribute
5	order_type	Varchar	Rule	Each order type should be either	Independent attribute
6	drinks_amount	Decimal	Generated	Amount for drinks	Independent attribute
7	food_amount	Decimal	Generated	Amount for food	Independent attribute
8	other_payment	Decimal	Generated	Other payment amounts	Independent attribute
9	service_charges	Decimal	Excel Formula	Service charges applied	Independent attribute
10	delivery_charges	Decimal	Excel Formula	Delivery charges applied	Independent attribute
11	order_amount	Decimal	Excel Formula	Sub-total of the order	Independent attribute
12	tax_amount	Decimal	Excel Formula	Tax amount	Independent attribute
13	order_total	Decimal	Excel Formula	Final total of the order	Independent attribute
14	country_code	String	Rule	Tax rule based on country (UK/India)	Independent attribute

Deliveries

Brief Description: This table records specific details for orders designated as "Home Delivery," including partner payouts and API reconciliation amounts.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rules
1	id	Integer	FK/Generated	Unique delivery ID (PK, linked to order_id)	Independent attribute
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurant Table Mapped to restaurant_id
3	delivery_amount	Decimal	Python Script (Derived from Orders)	Partner payout amount	Independent attribute
4	order_amount	Decimal	Python Script (Derived from Orders)	Order amount for delivery calculation	From Orders Table Mapped to order_amount
5	api_amount	Decimal	Python Script (Derived from Orders)	API reported amount	Independent attribute
6	match	Boolean	Generated	Indicates if amounts match	Independent attribute
7	name	String	Generated	Name of the delivery service	Independent attribute
8	delivery_date	Date	Generated	Date of delivery	Independent attribute

Expenses

Brief Description: This table tracks various expenditures incurred by each restaurant on a daily basis.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rules
1	expense_id	Integer	Generated	Unique expense ID (PK)	**Independent Attribute**
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurant Table Mapped to restaurant_id
3	bills	Decimal	Generated	Bill amounts	**Independent Attribute**
4	vendors	Decimal	Generated	Vendor payments	**Independent Attribute**
5	wage_advances	Decimal	Generated	Wage advances paid	**Independent Attribute**
6	repairs	Decimal	Generated	Repair costs	**Independent Attribute**
7	sundries	Decimal	Generated	Miscellaneous expenses	**Independent Attribute**
8	Expense_date	Date	Generated	Date of the expense	**Independent Attribute**
9	Total_expenses	Decimal	Generated	Sum of all expenses listed below	**Independent Attribute**

Banking_Info

Brief Description: This table records daily banking activities and reconciliation status

for each restaurant.

Sl No.	Column Name	Data Type	Formula/Source	Description	Source System/Mapping Rules
1	banking_id	Integer	PK	Unique banking record ID	Independent attribute
2	restaurant_id	Integer	FK	ID of the restaurant	From Restaurant Table Mapped to restaurant_id
3	banked_total	Decimal	Python Script (Derived from EOD)	Total amount banked	Independent attribute
4	banking_total	Decimal	Python Script (Derived from Cash_up EOD)	Total amount from cash-up	Independent attribute
5	reconcile_status	Varchar	Manual	Status of reconciliation	Independent attribute
6	banking_date	Date	Generated	Date of banking deposit	Independent attribute
7	banking_time_indicator	Varchar	Generated	AM/PM banking	Independent attribute
8	sealed_by	Varchar	Faker	Name of employee who sealed	Independent attribute