

Customer Management System

Overview

This document contains the Customer Management database schema, including customer profiles, demographics, and account information.

Table: Customer_Info

Purpose: Stores customer profile details and demographic information.

Column Name	Data Type	Description	Constraints
Customer_ID	INTEGER	Unique identifier for each customer	PRIMARY KEY, AUTO_INCREMENT
Customer_Name	VARCHAR(255)	Full name of the customer	NOT NULL
Email	VARCHAR(255)	Email address of the customer	UNIQUE, NOT NULL
Phone	VARCHAR(20)	Phone number of the customer	UNIQUE
Gender	VARCHAR(10)	Gender of the customer (Male/Female/Other)	CHECK (Gender IN ('Male', 'Female', 'Other'))
Age	INTEGER	Age of the customer	CHECK (Age >= 18 AND Age <= 120)
Date_of_Birth	DATE	Date of birth of the customer	NOT NULL
City	VARCHAR(100)	City where the customer resides	NOT NULL
State	VARCHAR(100)	State where the customer resides	NOT NULL
Country	VARCHAR(100)	Country where the customer resides	DEFAULT 'India'
Postal_Code	VARCHAR(20)	Postal code of the customer	
Join_Date	DATE	Date when the customer account was created	NOT NULL, DEFAULT CURRENT_DATE
Account_Status	VARCHAR(20)	Status of the account (Active/Inactive/Suspended)	DEFAULT 'Active'

Loyalty_Points	INTEGER	Accumulated loyalty points	DEFAULT 0
Last_Login	TIMESTAMP	Last login timestamp	

Table: Customer_Preferences

Purpose: Stores customer preferences and communication settings.

Column Name	Data Type	Description	Constraints
Preference_ID	INTEGER	Unique identifier for preferences	PRIMARY KEY, AUTO_INCREMENT
Customer_ID	INTEGER	Reference to Customer_Info table	FOREIGN KEY, NOT NULL
Communication_Channel	VARCHAR(50)	Preferred communication channel (Email/SMS/Phone/Push)	NOT NULL
Notification_Enabled	BOOLEAN	Whether notifications are enabled	DEFAULT TRUE
Marketing_Consent	BOOLEAN	Whether customer consents to marketing	DEFAULT FALSE
Newsletter_Subscription	BOOLEAN	Whether customer is subscribed to newsletter	DEFAULT FALSE
Preferred_Language	VARCHAR(50)	Preferred language for communication	DEFAULT 'English'
Time_Zone	VARCHAR(50)	Customer's time zone	DEFAULT 'IST'

Relationships

- **Foreign Key:** Customer_ID references Customer_Info.Customer_ID

Table: Customer_Segments

Purpose: Stores customer segmentation data for targeted marketing and analysis.

Column Name	Data Type	Description	Constraints
Segment_ID	INTEGER	Unique identifier for segment	PRIMARY KEY, AUTO_INCREMENT
Customer_ID	INTEGER	Reference to Customer_Info table	FOREIGN KEY, NOT NULL

Segment_Name	VARCHAR(100)	Name of the customer segment	NOT NULL
Segment_Category	VARCHAR(50)	Category (Premium/Standard/Economy/VIP)	NOT NULL
Lifetime_Value	DECIMAL(12,2)	Estimated lifetime value of customer	DEFAULT 0.00
Risk_Score	DECIMAL(5,2)	Risk score for churn (0-100)	DEFAULT 0.00
Engagement_Level	VARCHAR(20)	Engagement level (High/Medium/Low)	DEFAULT 'Medium'
Last_Updated	TIMESTAMP	Last update timestamp	DEFAULT CURRENT_TIMESTAMP

Relationships

- **Foreign Key:** Customer_ID references Customer_Info.Customer_ID

Relationships Summary

- One customer can have multiple preferences
- One customer can belong to multiple segments
- All relationships are maintained through Customer_ID foreign key