**Milestone #3 Summary – Database Creation and Data Population**

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In **Milestone #3**, I have successfully designed, implemented, and populated the Explore **Travel Insurance Management System** database. This phase involved defining the database schema, creating tables with appropriate constraints, and inserting sample data to validate relationships and ensure data handling.

**1. Table Creation**

I have structured the database by creating 13 interrelated tables, incorporating primary and foreign key constraints to maintain data integrity. The following tables were implemented:

Core Entities

* Customer: Stores customer details such as name, gender, date of birth, occupation, travel purpose, and risk level. Constraints were added to ensure valid risk levels (Low, Medium, High) and travel purposes (Business, Leisure, Medical, Education).
* Policy Type: Defines different insurance policy types, ensuring uniqueness. I added three new policy types:
  + Travel Blogger Insurance
  + Infant Coverage
  + Teen Coverage

Policy Management

* Insurance Policy: Stores details about each policy, including name, type, coverage details, and premium amount. A foreign key links this table to the Policy Type table.
* Personalized Quote: Allows customization of insurance policies per customer, storing premium adjustments, coverage modifications, and quote generation dates.

Customer & Policy Relations

* Customer Policy: Tracks which customers purchased which policies. Includes constraints to ensure the expiry date is always later than the purchase date to prevent invalid entries. This table follows a many-to-many relationship structure.

Claims & Processing

* Claim: Stores records of insurance claims, including the claim amount, status (Pending, Approved, Rejected), and submission date.
* Claim Processing: Handles claim processing, linking each claim to an assigned agent. Ensures referential integrity by linking to the Agent table.

Agent & Sales Management

* Agent: Stores insurance agents’ details, including name and contact information.
* Agent Sales: Tracks which agents sold which policies, along with the sale date and commission earned.

Financial Transactions

* Payment: Stores records of premium payments made by customers for their policies, ensuring correct transaction tracking.

Business Partnerships & Risk Coverage

* Travel Platform: Represents travel-related platforms partnering with the insurance provider.
* Partnership: Manages relationships between travel platforms and insurance policies, including commission rates and partnership start dates.
* High-risk Coverage: Records specialized coverage for high-risk scenarios, such as extreme sports or hazardous travel destinations.

Promotional Offers

* Country Offers: Tracks country-based discounts and special terms for policies offered in different regions.

Added below a screenshot of the Database with the tables which were created in MySql.

A screenshot of a computer

AI-generated content may be incorrect.

**2. Data Insertion**

To validate my schema and ensure real-world applicability, I have populated the database with sample data:

Customers

* Added 20 customers with varied demographics, occupations, travel purposes, and risk levels.
* Ensured diversity in risk categorization (e.g., business travelers categorized as Low-Medium risk, adventure travelers categorized as High risk).

Insurance Policies

* Inserted 10 insurance policies, linking them to different policy types and defining comprehensive coverage details.

Customer Policies

* Mapped 20+ customers to their purchased policies, ensuring that expiry dates are valid and match constraints.
* Addressed duplicate primary key errors by carefully handling customer-policy relationships.

Claims Management

* Inserted 20+claims with varying statuses (Approved, Pending, Rejected) and different claim amounts.
* Ensured each claim is linked to a valid policy and customer in the system.

Agent Assignments & Sales

* Populated Agent and Agent Sales tables with 10+ insurance agents who are responsible for handling claims and selling policies.
* Tracked sales commissions for agents based on policy sales.

Payments & Transactions

* Added 10+ payment records, ensuring all transactions are mapped correctly to customer policies.

Business Partnerships & High-Risk Coverage

* Established partnerships between multiple travel platforms and insurance policies to model real-world collaborations.
* Inserted records for high-risk coverage, such as policies covering adventure travel, high-altitude trekking, and extreme sports.