

# Case Study: Customer Financial Profile Analysis

## Background:

You are working for a financial services company that wants to understand its customers' credit card usage and overall financial health. You've been provided with two datasets:

1. **users\_data:** This contains demographic and financial information about the users.

### Columns:

- `main_id`: Unique user identifier (foreign key for `client_id` in `cards_data`)
- `current_age`, `retirement_age`
- `gender`
- `address`, `latitude`, `longitude`
- `per_capita_income`, `yearly_income`, `total_debt`, `credit_score`
- `num_credit_cards`: Number of credit cards the user owns

2. **cards\_data:** Contains details about each credit card associated with a user.

### Columns:

- `card_id`: Unique identifier for each card
- `client_id`: Foreign key linked to `main_id` in `users_data`
- `card_brand`, `card_type` (e.g., Debit, Credit, Prepaid)
- `expires`, `acct_open_date`
- `credit_limit`, `year_pin_last_changed`

## Objective:

Your task is to combine and analyze the two datasets to answer the following questions:

1. **Customer Demographics:** What is the age distribution, gender ratio, and income distribution of the customers?
2. **Credit Card Ownership:** How many credit cards does the average user have? Identify customers with multiple credit cards.
3. **Credit Risk Analysis:** Identify customers with high total debt compared to their yearly income.
4. **Card Expiration Analysis:** How many cards will expire within the next year?
5. **Insights for Marketing:** Provide insights on which group of customers might be ideal for targeted marketing campaigns (based on credit scores, income, and card types).