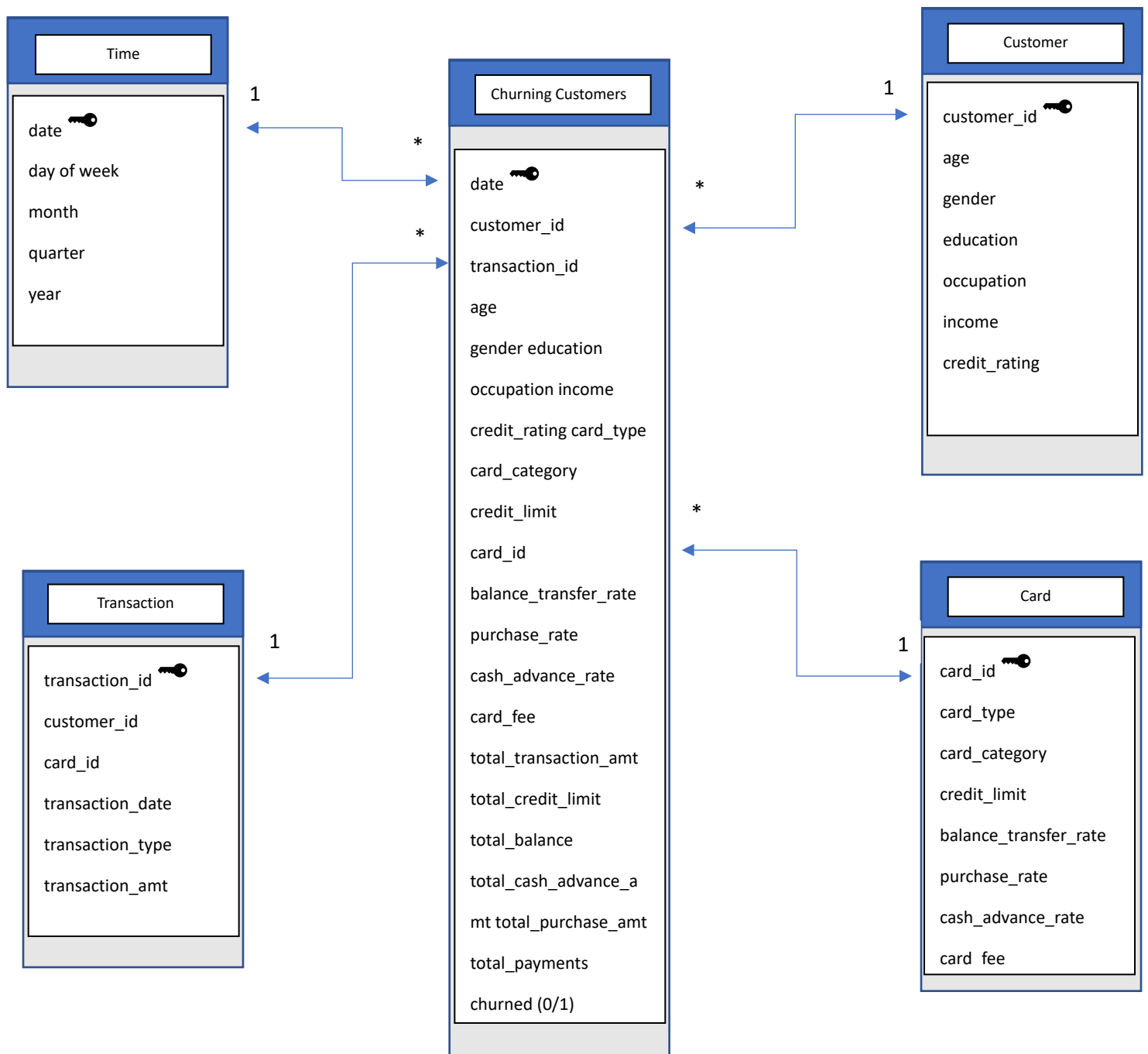Dataset Link: https://www.kaggle.com/datasets/sakshigoyal7/credit-card-customers?resource=download

For the dataset that we have chosen for our group assignment, the fact table will be the Churning Customers Table, which contains information about customers who have churned or not churned.

The Star Schema will be:

Time

- date 🔑
- day of week
- month
- quarter
- year

Churning Customers

- date 🔑
- customer_id
- transaction_id
- age
- gender education
- occupation income
- credit_rating card_type
- card_category
- credit_limit
- card_id
- balance_transfer_rate
- purchase_rate
- cash_advance_rate
- card_fee
- total_transaction_amt
- total_credit_limit
- total_balance
- total_cash_advance_a
- mt total_purchase_amt
- total_payments
- churned (0/1)

Customer

- customer_id 🔑
- age
- gender
- education
- occupation
- income
- credit_rating

Transaction

- transaction_id 🔑
- customer_id
- card_id
- transaction_date
- transaction_type
- transaction_amt

Card

- card_id 🔑
- card_type
- card_category
- credit_limit
- balance_transfer_rate
- purchase_rate
- cash_advance_rate
- card fee

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We can display the fact table in the center, surrounded by the dimension tables, to produce the star schema diagram. Lines linking the tables show the relationships between the fact table and the dimension tables.

Here total measures can be two things. Number one is Total Transaction, and Number two is Total Credit.

In this Star Schema Diagram, the fact table Churning Customers is connected to the dimension tables Time, Customer, Card, and Transaction.

It is crucial to make sure that all of the attributes in the star schema are pertinent and helpful for reporting and analysis. The data warehouse's usability and efficacy may be hampered by irrelevant properties. In this instance, we've chosen characteristics that are important for analyzing credit card churning and spotting patterns and trends that might assist credit card firms keep clients and avoid churn. But it may be necessary to add more attributes or remove some properties based on the particular use case. It is crucial to carefully assess the data warehouse's requirements and use cases and make the appropriate attribute choices.

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