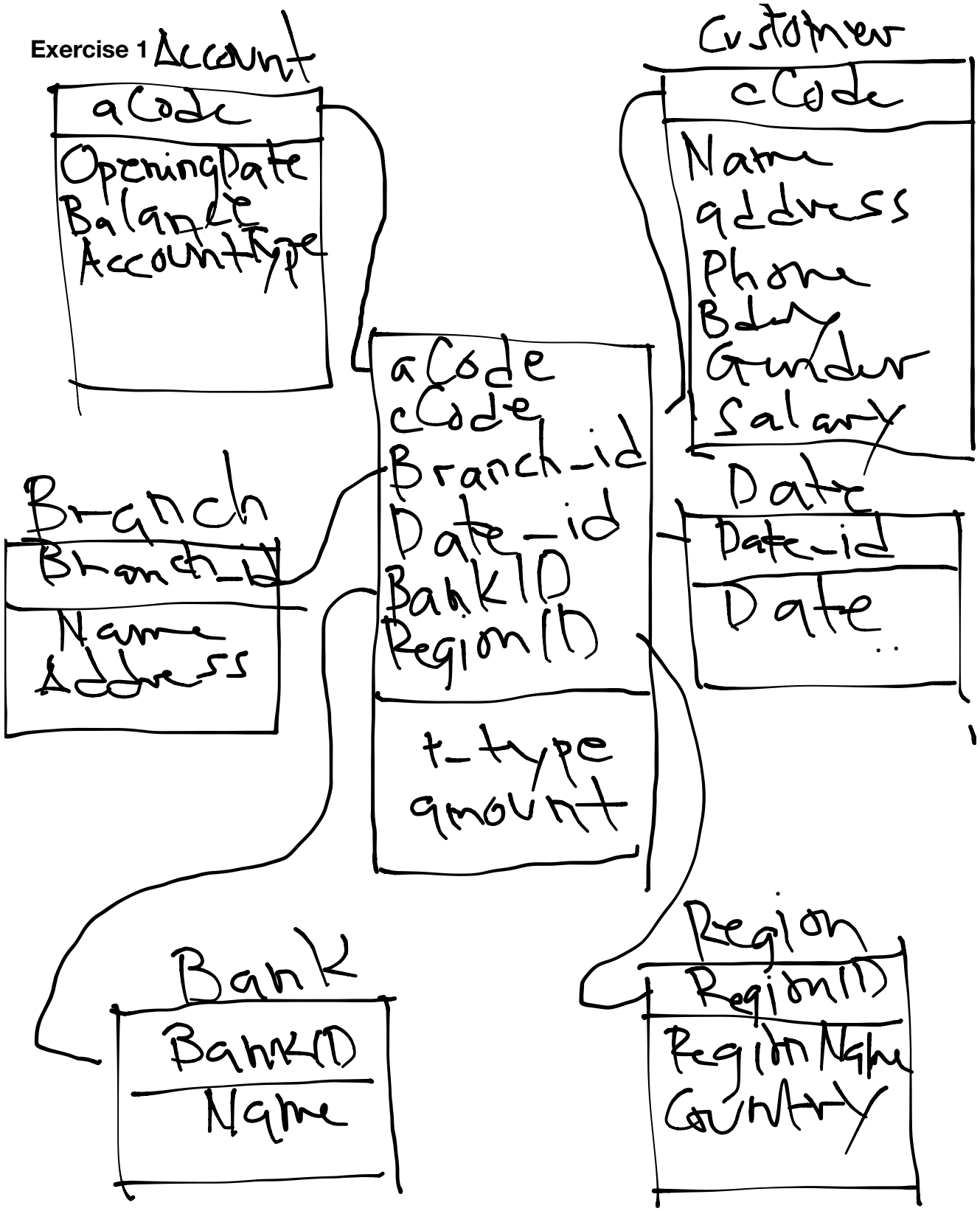
Exercise 1


Account
aCode
OpeningDate
Balance
AccountType
Customer
cCode
Name
address
Phone
Bday
Gender
Salary
aCode
cCode
Branch_id
Date_id
BankID
RegionID
t_type
amount
Branch
Branch_ID
Name
Address
Date
Date_id
Date
Bank
BankID
Name
Region
RegionID
RegionName
Country

2.

```
SELECT SUM(f.amount), b.Name FROM Fact f
      JOINS Account a ON f.aCode = a.aCode
      JOINS Customer c ON f.cCode = c.cCode
      JOINS Branch b ON f.Branch_id = b.Branch_id
      JOINS Date d ON f.date_id = d.date_id
      WHERE d.date = date('2009') AND a.AccountType = 'student'
      GROUP BY b.Name
```

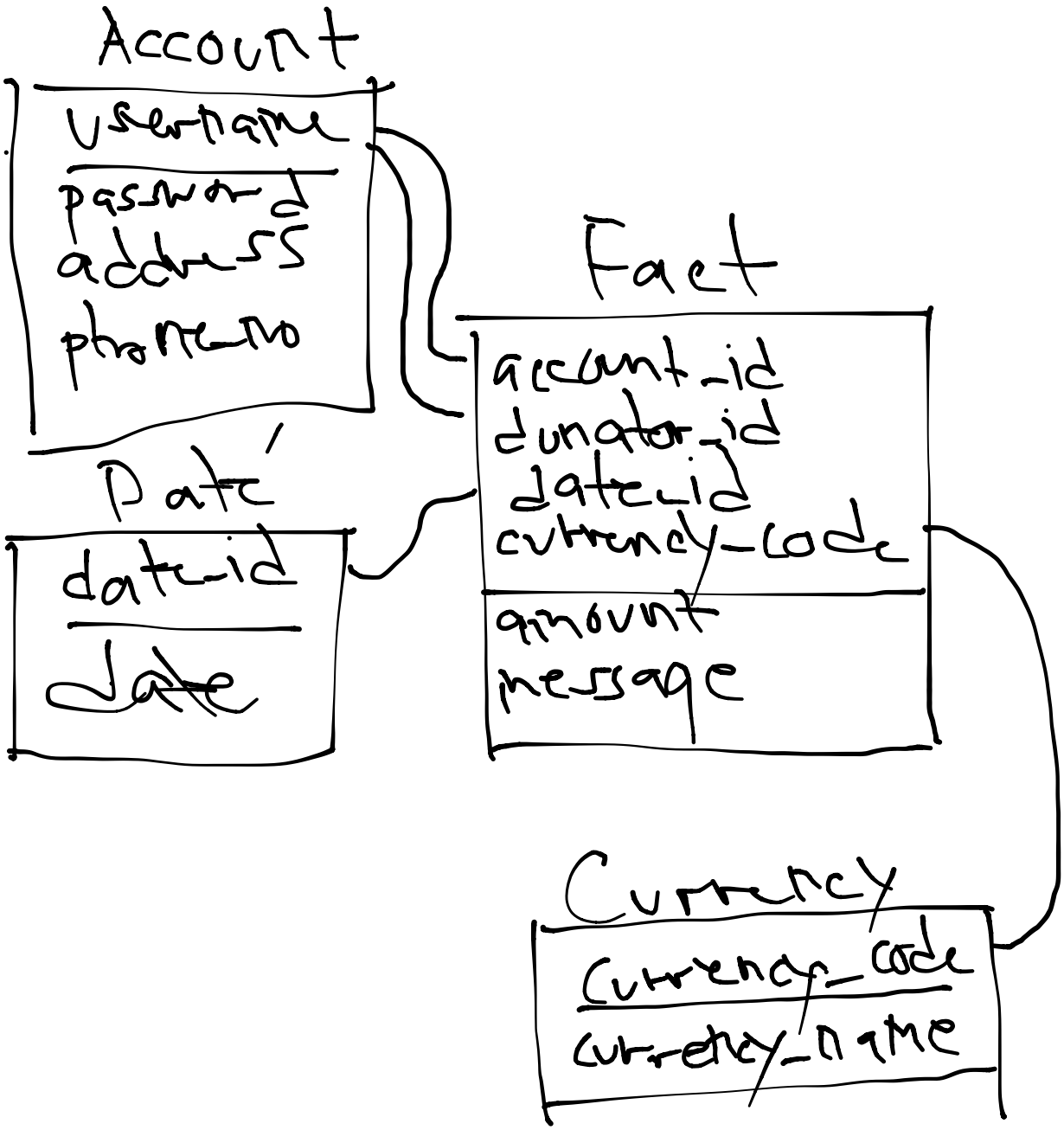
Exercise 2

Description: Twitch.tv is a popular Game streaming platform where gamers can stream while they're playing and communicate with the people watching his stream. Viewers can "donate" money to the gamer to support his stream in return if they want to.

Business Questions:

1. The model should support query to show the total donations of each viewer in a stream in order from highest to lowest.
2. The model should support query about the daily total donation a streamer received this month.

Dimensional Diagram:



SQL Statements:

- Assume that Date column only stores only DD-MM-YY

1. SELECT f.donator_id, c.currency_name, SUM(f.amount) FROM Fact f
   JOINS Currency c ON f.currency_code = c.currency_code
   GROUP BY f.donator_id
   ORDER BY SUM(f.amount)

2. SELECT f.account_id, c.currency_name, SUM(f.amount), d.date FROM Fact f
   JOINS Currency c ON f.currency_code = c.currency_code
   JOINS Date d ON f.date_id = d.date_id
   WHERE d.date = date('10','2016')
   GROUP BY f.account_id
   ORDER BY f.account_id, trunc(d.date)