CSE 344 Section 10

1. You're given the following relations and grocery store stats:

Safeway(id, name, category, price)
T=1000, V(name)=900, V(category)=10, V(price)=200, Range(price) = [1,50)

QFC(id, name, category, price)
T=2000, V(name)=1900, V(category)=12, V(price)=500

Estimate the cardinality for the following queries:

- Select * from Safeway where id = 45

- Select * from Safeway where name = ‘Milk’

- Select * from Safeway where price < 20

- Select * from Safeway S, Qfc Q where S.id = Q.id

- Select * from Safeway S, Qfc Q where S.name = Q.name

Suppose that we store all the data for a social network in a single dataset of Users:

```
[ {“handle”: “biebs”,
   “name”: “Justin Bieber”,
   “home_city”: “Somewhere, Canada”,
   “bio”: “...”,
   “friends”: [“kimkardashian”, “shaq”, ...],
   “messages”: [
     {“text”: “:-* :-* :-* :-*”, “from_city”: “Los Angeles, CA”},
     {“text”: “New. Music. Friday.”, “from_city”: “Los Angeles, CA”}, ...
   ]
  }, ...]
```

2. For each home city, compute a list of users from that home city. Your query should return a list where each element consists of a home city name and a list of user handles.

3. Return pairs of users that have at least one common friend.