Christopher McGrath
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CSCI 370 HW1

Answer for 1.A:

A DBMS would help this organization by organizing their data which would make things like data entry and retrieval, statistics, and querying easier.

Answer for 1.B:

A list of potential objects is:

- Staff
- Properties for rent
- Property Owners
- Clients
- Property viewings
- Leases
- Newspapers

Each of these objects would have separate, private data members typical of a struct or class.

Answer for 1.C:

Some relationships would be that Clients would have to interact with property viewings, staff would have to interact with clients, properties for rent and property owners would have to interact, as well as properties for rent and newspapers. There are many relationships that would be accounted for in a system comprising that many objects.

Answer for 1.D:

Details are indexed under their respective object.

- Staff
    - Staff number, name, position, gender, DOB, name of supervisor
- Properties for rent
    - Property number, address, type, number of rooms, monthly rent, details
- Property Owners
    - Type (private or business), owner number, name, address, number, email, password
- Clients
    - Client number, name, n umber, email, data on property, max rent, staff name.
- Property viewings

    - Client number, name, number, property number, address, date viewed, comments.
- Leases
    - Lease number, client number, name, property number, address, type, rent, method of payment, deposit, start and end date of rental period, duration of lease.
- Newspapers
    - Property number, address, type, number of rooms, rent, date advertised, the name of the newspaper, cost to advertise, name, address, number, contact name.

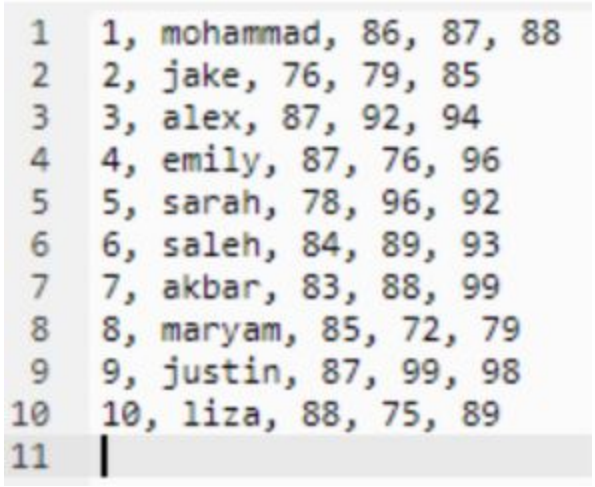
Answer for 1.E:

Taken straight from page 3 of the reading:

A. List details of branches
B. Total number of branches in city
C. get name, pos, and salary of a given branch
D. Get total number of staff
E. Get total number of staff at each position in Glasgow
F. List the name of each manager at each branch
G. List the name of Staff supervised by a superviser\
H. List the property number, address, type, and rent of all properties in Glasgow, ordered by rental amount
I. List the details of properties for rent managed by a named member of staff.

There's more on page 3 of the reading, this is just an example of some of the queries that would be made for a system such as this.

Screenshot for 2.A



Screenshot for 2.C and 2.D

```
 1: Create csv file
 2: Display
 3: find by ID
 4: Find by name
 5: Find max
 6: Find max avg
 0: Quit
3

Enter the ID number of the student you wish to find.
4
Student: 4, ID:4, Name: emily, CSCI230: 87, CSCI240: 76, CSCI370: 96
 1: Create csv file
 2: Display
 3: find by ID
 4: Find by name
 5: Find max
 6: Find max avg
 0: Quit
4

Enter the name of the student you wish to find.
emily
Student: 4, ID:4, Name: emily, CSCI230: 87, CSCI240: 76, CSCI370: 96
```

Screenshot for 2.E and 2.F