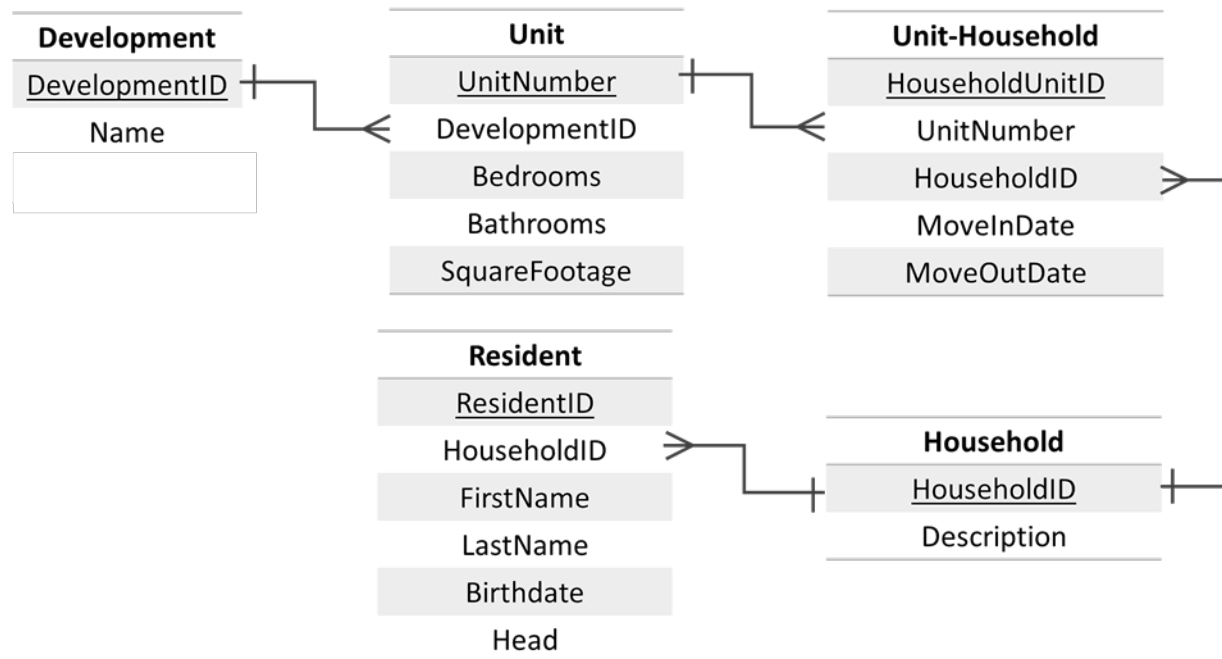


## In-class Activity #2: Pen-and-Paper Query Exercise

Recall our Housing Authority schema from the last in-class exercise:



Assume the database schema is called **hdb** (for “housing database” – clever!). So, in a query, you’ll reference the Development table as `hdb.Development`.

Create a single SQL query that answers each question below. Make sure you are only returning the information needed to answer the question (don’t just use `SELECT *`).

- 1) Which housing units (by unit number) have more than two bathrooms?

```
SELECT UnitNumber  
FROM hdb.Unit  
WHERE Bathrooms > 2;
```

- 2) What is the birthdate of the resident named Tom Haverford?

```
SELECT Birthdate  
FROM hdb.Resident  
WHERE FirstName = 'Tom' AND LastName = 'Haverford';
```

- 3) What are the names of all heads of household (list in ascending alphabetical order by last name)?

*(HINT: The field "head" can take the value "Yes" or "No")*

```
SELECT FirstName, LastName  
FROM hdb.Resident  
WHERE Head='Yes'  
ORDER BY LastName ASC; (Note: ASC is optional)
```

- 4) How many units are larger than 2000 square feet?

```
SELECT COUNT(*)  
FROM hdb.Unit  
WHERE SquareFootage > 2000; (Note: do not write 2,000)
```

- 5) What is the average square footage of all units in the database?

```
SELECT AVG(SquareFootage)  
FROM hdb.Unit;
```

- 6) What is the average square footage of units by number of bedrooms (in other words, write a query that computes the average square footage of one bedroom units, two bedroom units, etc.).

```
SELECT Bedrooms, AVG(SquareFootage)  
FROM hdb.Unit  
GROUP BY Bedrooms;
```

- 7) What is the smallest number of units in any development?

```
SELECT COUNT(*)  
FROM hdb.Unit  
GROUP BY DevelopmentID  
ORDER BY COUNT(*) LIMIT 1;
```

8) How many residents first name start with H?

```
SELECT COUNT(FirstName)  
FROM hdb.Resident  
WHERE FirstName LIKE 'H%';
```