How_to_Meet_and_Retrieve_Your_Data

April 20, 2021

1 How to Meet and Retrieve Your Data

Watershed's intern put together a couple of sources of information that will be useful for your project. These three types of information are contained in the capstone database: 1. the current monthly rent Watershed charges for all of their client's 244 properties, as well as the property type and geographic location of those properties. 2. some general information about examples of short-term rental properties. This information can be used to get a sense of what kind of nightly rental price Watershed's client's properties *could* be listed for, if they were converted to short-term rentals. 3. records about when those short-term rental properties were rented out, so that you can calculate their occupancy rates.

Your job is to determine how the database is organized so that you can retrieve all of the available information about Watershed's client's 244 properties, as well as the corresponding short-term rental information for comparable properties in the same location and of the same type. 1. Start by determining what tables the database contains, and what fields are included in each table.
2. Then, we recommend that you make at least a rough relational schema of how the database is organized, so that you know what fields you can use to join tables. 3. Next, make a list of the columns of data you want to retrieve in your final output.
4. Finally, write your query to retrieve the desired data from the database.

Here are some hints about how to write your query: * Start by joining no more than two tables. After you have made sure the query works as written and that the output makes sense, add other tables one at a time, checking the new query and its results each time. * Your final output should have 244 rows. Given the limited output, the easiest way to extract the results will be to copy and paste the output from your query into Excel, although you could also extract as a .csv file and open that with Excel. If you choose the .csv option, you might find it necessary to write your query on multiple lines when you declare it as a variable. To do this, type a space (if you forget the space the lines will run together) and a "" at the end of each line of your query:

```
my_data= %sql SELECT DISTINCT user_guid, state, membership_type \
FROM users \
WHERE country="US" AND state IS NOT NULL and membership_type IS NOT NULL \
ORDER BY state ASC, membership_type ASC ;

my_data.csv('my_data.csv')
```

- We recommend that you calculate the occupancy rates of the example short-term rental properties within MySQL, rather than within Excel (it will be much faster!) To do this, only examine rental dates during 2015, and remember that there are 365 days in the year. The final output of your calculation should be the percentage of days in 2015 that the property was occupied. You may want to consider using a subquery for this calculation.
- Make sure that you extract information from short-term rentals *that have the same location and property type* as the 244 Watershed properties.
- If you run into trouble, use your workbooks and Teradata notes from "Managing Big Data with MySQL" to remind you how to implement different parts of your query.

1.1 Good luck and have fun!

To get started, connect to the capstone database and set the database as your default database using the following commands:

```
%load_ext sql
%sql mysql://studentuser:studentpw@localhost/capstone
%sql USE capstone
```

1.1.1 Load and connect to the database

```
[1]: %load_ext sql
     %sql mysql://studentuser:studentpw@localhost/capstone
     %sql USE capstone
```

```
 * mysql://studentuser:***@localhost/capstone
0 rows affected.
```

```
[1]: []
```

1.1.2 Queries

You can add as many "cells" as you need in order to explore the database and extract the appropriate data. For a reminder about what "cells" are, how to add them, or how to use Jupyter in general, please refer to the "How to Use Jupyter Notebooks" video at: https://www.coursera.org/learn/analytics-mysql/lecture/oxkUg/how-to-use-jupyter-notebooks.

```
[2]: %sql SHOW tables
```

```
 * mysql://studentuser:***@localhost/capstone
6 rows affected.
```

```
[2]: [('location',),
     ('property_type',),
     ('st_property_info',),
     ('st_rental_dates',),
```

```
       ('st_rental_prices',),
       ('watershed_property_info',)]
```

[4]: `%sql SHOW columns from location`

```
 * mysql://studentuser:***@localhost/capstone
4 rows affected.
```

[4]: `[('location_id', 'varchar(255)', 'NO', 'PRI', None, ''),`
    `('city', 'varchar(255)', 'YES', '', None, ''),`
    `('state', 'varchar(255)', 'YES', '', None, ''),`
    `('zipcode', 'int(5)', 'YES', '', None, '')]`

[3]: `%sql SHOW columns from property_type`

```
 * mysql://studentuser:***@localhost/capstone
5 rows affected.
```

[3]: `[('property_type_id', 'varchar(255)', 'NO', 'PRI', None, ''),`
    `('apt_house', 'varchar(255)', 'YES', '', None, ''),`
    `('num_bedrooms', 'varchar(255)', 'YES', '', None, ''),`
    `('kitchen', 'varchar(255)', 'YES', '', None, ''),`
    `('shared', 'varchar(255)', 'YES', '', None, '')]`

[5]: `%sql SHOW columns from st_property_info`

```
 * mysql://studentuser:***@localhost/capstone
3 rows affected.
```

[5]: `[('st_property_id', 'varchar(255)', 'NO', 'PRI', None, ''),`
    `('location', 'varchar(255)', 'YES', '', None, ''),`
    `('property_type', 'varchar(255)', 'YES', '', None, '')]`

[6]: `%sql SHOW columns from st_rental_dates`

```
 * mysql://studentuser:***@localhost/capstone
2 rows affected.
```

[6]: `[('rental_date', 'date', 'NO', 'PRI', None, ''),`
    `('st_property', 'varchar(255)', 'NO', 'PRI', None, '')]`

[7]: `%sql SHOW columns from st_rental_prices`

```
 * mysql://studentuser:***@localhost/capstone
5 rows affected.
```

[7]: `[('location', 'varchar(255)', 'NO', 'PRI', None, ''),`
    `('property_type', 'varchar(255)', 'NO', 'PRI', None, ''),`

```
    ('percentile_10th_price', 'int(11)', 'YES', '', None, ''),
    ('percentile_90th_price', 'int(11)', 'YES', '', None, ''),
    ('sample_nightly_rent_price', 'int(11)', 'YES', '', None, '')]
```

[8]: `%sql SHOW columns from watershed_property_info`

   * mysql://studentuser:***@localhost/capstone
   4 rows affected.

[8]:
```
[('ws_property_id', 'varchar(255)', 'NO', 'PRI', None, ''),
 ('location', 'varchar(255)', 'YES', '', None, ''),
 ('property_type', 'varchar(255)', 'YES', '', None, ''),
 ('current_monthly_rent', 'int(11)', 'NO', '', None, '')]
```

[9]:
```
%%sql
SELECT ws_property_id, location, property_type, current_monthly_rent
FROM watershed_property_info
limit 20
```

   * mysql://studentuser:***@localhost/capstone
   20 rows affected.

[9]:
```
[('W1', 'L9531', 'R6', 1060),
 ('W10', 'L9533', 'R6', 1200),
 ('W100', 'L1944', 'R2', 3300),
 ('W101', 'L15257', 'R2', 1400),
 ('W102', 'L15257', 'R6', 2000),
 ('W103', 'L15257', 'R10', 1600),
 ('W104', 'L15257', 'R14', 2800),
 ('W105', 'L15260', 'R2', 1100),
 ('W106', 'L15260', 'R6', 1900),
 ('W107', 'L15260', 'R10', 1800),
 ('W108', 'L15260', 'R14', 3200),
 ('W109', 'L15264', 'R2', 1000),
 ('W11', 'L9533', 'R10', 1000),
 ('W110', 'L15264', 'R6', 1300),
 ('W111', 'L15264', 'R10', 1200),
 ('W112', 'L15264', 'R14', 1600),
 ('W113', 'L15278', 'R2', 800),
 ('W114', 'L15278', 'R6', 1200),
 ('W115', 'L15278', 'R10', 900),
 ('W116', 'L15278', 'R14', 1100)]
```

[7]:
```
%%sql
SELECT w.ws_property_id, w.current_monthly_rent, w.property_type, p.apt_house,
 →p.num_bedrooms, p.kitchen, p.shared, w.location,
l.city, l.state, l.zipcode
```

```
FROM watershed_property_info w, property_type p, location l
WHERE w.property_type=p.property_type_id AND w.location=l.location_id
limit 20;
```

* mysql://studentuser:***@localhost/capstone
20 rows affected.

[7]: [('W1', 1060, 'R6', 'apartment', '2', 'Y', 'N', 'L9531', 'Chapel Hill', 'NC',
27514),
 ('W10', 1200, 'R6', 'apartment', '2', 'Y', 'N', 'L9533', 'Chapel Hill', 'NC',
27517),
 ('W100', 3300, 'R2', 'apartment', '1', 'Y', 'N', 'L1944', 'San Francisco',
'CA', 94129),
 ('W101', 1400, 'R2', 'apartment', '1', 'Y', 'N', 'L15257', 'Austin', 'TX',
78702),
 ('W102', 2000, 'R6', 'apartment', '2', 'Y', 'N', 'L15257', 'Austin', 'TX',
78702),
 ('W103', 1600, 'R10', 'house', '1', 'Y', 'N', 'L15257', 'Austin', 'TX', 78702),
 ('W104', 2800, 'R14', 'house', '2', 'Y', 'N', 'L15257', 'Austin', 'TX', 78702),
 ('W105', 1100, 'R2', 'apartment', '1', 'Y', 'N', 'L15260', 'Austin', 'TX',
78705),
 ('W106', 1900, 'R6', 'apartment', '2', 'Y', 'N', 'L15260', 'Austin', 'TX',
78705),
 ('W107', 1800, 'R10', 'house', '1', 'Y', 'N', 'L15260', 'Austin', 'TX', 78705),
 ('W108', 3200, 'R14', 'house', '2', 'Y', 'N', 'L15260', 'Austin', 'TX', 78705),
 ('W109', 1000, 'R2', 'apartment', '1', 'Y', 'N', 'L15264', 'Austin', 'TX',
78723),
 ('W11', 1000, 'R10', 'house', '1', 'Y', 'N', 'L9533', 'Chapel Hill', 'NC',
27517),
 ('W110', 1300, 'R6', 'apartment', '2', 'Y', 'N', 'L15264', 'Austin', 'TX',
78723),
 ('W111', 1200, 'R10', 'house', '1', 'Y', 'N', 'L15264', 'Austin', 'TX', 78723),
 ('W112', 1600, 'R14', 'house', '2', 'Y', 'N', 'L15264', 'Austin', 'TX', 78723),
 ('W113', 800, 'R2', 'apartment', '1', 'Y', 'N', 'L15278', 'Austin', 'TX',
78744),
 ('W114', 1200, 'R6', 'apartment', '2', 'Y', 'N', 'L15278', 'Austin', 'TX',
78744),
 ('W115', 900, 'R10', 'house', '1', 'Y', 'N', 'L15278', 'Austin', 'TX', 78744),
 ('W116', 1100, 'R14', 'house', '2', 'Y', 'N', 'L15278', 'Austin', 'TX', 78744)]

[8]: %%sql
SELECT DISTINCT l.zipcode
FROM watershed_property_info w, location l
WHERE w.location=l.location_id
GROUP BY l.zipcode;

* mysql://studentuser:***@localhost/capstone
62 rows affected.
```

```
[8]: [(10002,),
      (10004,),
      (10014,),
      (10019,),
      (10023,),
      (11101,),
      (11211,),
      (23060,),
      (23113,),
      (23220,),
      (23234,),
      (27514,),
      (27516,),
      (27517,),
      (27707,),
      (29438,),
      (29470,),
      (29487,),
      (33122,),
      (33137,),
      (33146,),
      (33149,),
      (33178,),
      (43201,),
      (43212,),
      (43222,),
      (60607,),
      (60611,),
      (60616,),
      (60642,),
      (60654,),
      (68046,),
      (68106,),
      (68110,),
      (68114,),
      (72712,),
      (72719,),
      (78702,),
      (78705,),
      (78723,),
      (78744,),
      (78746,),
      (80204,),
      (80209,),
      (80218,),
      (80220,),
      (80249,),
```

```
    (91910,),
    (91950,),
    (92102,),
    (92118,),
    (92154,),
    (94025,),
    (94103,),
    (94110,),
    (94112,),
    (94118,),
    (94129,),
    (94301,),
    (94303,),
    (94305,),
    (94306,)]
```

[9]:
```sql
%%sql
SELECT st_property, COUNT(rental_date)/365 AS Occupancy
FROM st_rental_dates
WHERE EXTRACT(year FROM rental_date)=2015
GROUP BY st_property
LIMIT 10;
```

```
 * mysql://studentuser:***@localhost/capstone
10 rows affected.
```

[9]:
```
[('ST1', Decimal('0.1616')),
 ('ST10', Decimal('0.3479')),
 ('ST100', Decimal('0.3973')),
 ('ST1000', Decimal('0.9808')),
 ('ST101', Decimal('0.3644')),
 ('ST102', Decimal('0.4110')),
 ('ST103', Decimal('0.4110')),
 ('ST104', Decimal('0.5260')),
 ('ST105', Decimal('0.4329')),
 ('ST106', Decimal('0.6959'))]
```

[10]:
```sql
%%sql
SELECT sd.st_property, COUNT(sd.rental_date)/365 AS Occupancy, si.location, si.
 →property_type
FROM st_property_info si JOIN st_rental_dates sd
  ON si.st_property_id=sd.st_property
WHERE EXTRACT(year FROM rental_date)=2015
GROUP BY st_property
LIMIT 10;
```

```
 * mysql://studentuser:***@localhost/capstone
```

```
10 rows affected.
```

[10]: [('ST1', Decimal('0.1616'), 'L9531', 'R6'),
('ST10', Decimal('0.3479'), 'L9533', 'R6'),
('ST100', Decimal('0.3973'), 'L1944', 'R2'),
('ST1000', Decimal('0.9808'), 'L5957', 'R1'),
('ST101', Decimal('0.3644'), 'L15257', 'R2'),
('ST102', Decimal('0.4110'), 'L15257', 'R6'),
('ST103', Decimal('0.4110'), 'L15257', 'R10'),
('ST104', Decimal('0.5260'), 'L15257', 'R14'),
('ST105', Decimal('0.4329'), 'L15260', 'R2'),
('ST106', Decimal('0.6959'), 'L15260', 'R6')]

[11]:
```sql
%%sql
SELECT i.st_property_id, p.sample_nightly_rent_price, i.location, i.
 ↪property_type
FROM st_property_info i JOIN st_rental_prices p
  ON i.location=p.location
GROUP BY st_property_id
```

 * mysql://studentuser:***@localhost/capstone
279 rows affected.

[11]: [('ST1', 104, 'L9531', 'R6'),
('ST10', 50, 'L9533', 'R6'),
('ST100', 139, 'L1944', 'R2'),
('ST101', 420, 'L15257', 'R2'),
('ST102', 420, 'L15257', 'R6'),
('ST103', 420, 'L15257', 'R10'),
('ST104', 420, 'L15257', 'R14'),
('ST105', 249, 'L15260', 'R2'),
('ST106', 249, 'L15260', 'R6'),
('ST107', 249, 'L15260', 'R10'),
('ST108', 249, 'L15260', 'R14'),
('ST109', 301, 'L15264', 'R2'),
('ST11', 50, 'L9533', 'R10'),
('ST110', 301, 'L15264', 'R6'),
('ST111', 301, 'L15264', 'R10'),
('ST112', 301, 'L15264', 'R14'),
('ST113', 154, 'L15278', 'R2'),
('ST114', 154, 'L15278', 'R6'),
('ST115', 154, 'L15278', 'R10'),
('ST116', 154, 'L15278', 'R14'),
('ST117', 343, 'L15280', 'R2'),
('ST118', 343, 'L15280', 'R6'),
('ST119', 343, 'L15280', 'R10'),
('ST12', 50, 'L9533', 'R14'),

```
('ST120', 343, 'L15280', 'R14'),
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('ST122', 168, 'L463', 'R6'),
('ST123', 168, 'L463', 'R10'),
('ST124', 168, 'L463', 'R14'),
('ST125', 260, 'L464', 'R2'),
('ST126', 260, 'L464', 'R6'),
('ST127', 260, 'L464', 'R10'),
('ST128', 260, 'L464', 'R14'),
('ST129', 120, 'L2314', 'R2'),
('ST13', 85, 'L9534', 'R6'),
('ST130', 120, 'L2314', 'R6'),
('ST131', 120, 'L2314', 'R10'),
('ST132', 120, 'L2314', 'R14'),
('ST133', 148, 'L2318', 'R2'),
('ST134', 148, 'L2318', 'R6'),
('ST135', 148, 'L2318', 'R10'),
('ST136', 148, 'L2318', 'R14'),
('ST137', 100, 'L2323', 'R2'),
('ST138', 100, 'L2323', 'R6'),
('ST139', 100, 'L2323', 'R10'),
('ST14', 85, 'L9534', 'R10'),
('ST140', 100, 'L2323', 'R14'),
('ST141', 109, 'L2325', 'R2'),
('ST142', 109, 'L2325', 'R6'),
('ST143', 109, 'L2325', 'R10'),
('ST144', 109, 'L2325', 'R14'),
('ST145', 94, 'L2338', 'R2'),
('ST146', 94, 'L2338', 'R6'),
('ST147', 94, 'L2338', 'R10'),
('ST148', 94, 'L2338', 'R14'),
('ST149', 114, 'L3244', 'R2'),
('ST15', 85, 'L9534', 'R14'),
('ST150', 114, 'L3244', 'R6'),
('ST151', 114, 'L3244', 'R10'),
('ST152', 114, 'L3244', 'R14'),
('ST153', 388, 'L3256', 'R2'),
('ST154', 388, 'L3256', 'R6'),
('ST155', 388, 'L3256', 'R10'),
('ST156', 388, 'L3256', 'R14'),
('ST157', 315, 'L3261', 'R2'),
('ST158', 315, 'L3261', 'R6'),
('ST159', 315, 'L3261', 'R10'),
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('ST160', 315, 'L3261', 'R14'),
('ST161', 177, 'L3262', 'R2'),
('ST162', 177, 'L3262', 'R6'),
```

```
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('ST169', 192, 'L10126', 'R2'),
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('ST170', 192, 'L10126', 'R6'),
('ST171', 192, 'L10126', 'R10'),
('ST172', 192, 'L10126', 'R14'),
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('ST188', 180, 'L1882', 'R3'),
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('ST192', 231, 'L1883', 'R14'),
('ST193', 175, 'L1887', 'R2'),
('ST194', 175, 'L1887', 'R6'),
('ST195', 175, 'L1887', 'R10'),
('ST196', 175, 'L1887', 'R14'),
('ST197', 266, 'L1902', 'R2'),
('ST198', 266, 'L1902', 'R6'),
('ST199', 266, 'L1902', 'R10'),
('ST2', 104, 'L9531', 'R10'),
('ST20', 350, 'L4761', 'R2'),
('ST200', 266, 'L1902', 'R14'),
('ST201', 183, 'L1916', 'R2'),
('ST202', 183, 'L1916', 'R6'),
('ST203', 183, 'L1916', 'R10'),
('ST204', 183, 'L1916', 'R14'),
```

```
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('ST206', 127, 'L12252', 'R6'),
('ST207', 127, 'L12252', 'R10'),
('ST208', 127, 'L12252', 'R14'),
('ST209', 88, 'L12260', 'R2'),
('ST21', 142, 'L4765', 'R6'),
('ST210', 88, 'L12260', 'R6'),
('ST211', 88, 'L12260', 'R10'),
('ST212', 88, 'L12260', 'R1'),
('ST213', 100, 'L12264', 'R4'),
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('ST216', 100, 'L12264', 'R7'),
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('ST218', 168, 'L16888', 'R6'),
('ST219', 168, 'L16888', 'R10'),
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('ST223', 69, 'L16887', 'R10'),
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('ST232', 82, 'L16890', 'R14'),
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('ST238', 105, 'L14418', 'R6'),
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('ST243', 82, 'L14419', 'R10'),
('ST244', 82, 'L14419', 'R14'),
('ST25', 110, 'L4770', 'R7'),
('ST254', 180, 'L1882', 'R7'),
('ST26', 110, 'L4770', 'R1'),
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('ST28', 110, 'L4770', 'R16'),
('ST29', 160, 'L4794', 'R7'),
('ST3', 104, 'L9531', 'R14'),
('ST30', 160, 'L4794', 'R3'),
('ST31', 160, 'L4794', 'R14'),
('ST32', 160, 'L4794', 'R2'),
('ST33', 204, 'L4804', 'R6'),
('ST34', 204, 'L4804', 'R10'),
('ST35', 204, 'L4804', 'R14'),
('ST355', 271, 'L11480', 'R14'),
('ST356', 271, 'L11480', 'R2'),
('ST357', 98, 'L11495', 'R6'),
('ST358', 98, 'L11495', 'R10'),
('ST359', 98, 'L11495', 'R14'),
('ST36', 204, 'L4804', 'R2'),
('ST360', 98, 'L11495', 'R2'),
('ST361', 98, 'L1734', 'R6'),
('ST362', 98, 'L1734', 'R10'),
('ST363', 98, 'L1734', 'R14'),
('ST364', 98, 'L1734', 'R2'),
('ST365', 317, 'L1735', 'R6'),
('ST366', 317, 'L1735', 'R10'),
('ST37', 176, 'L11419', 'R2'),
('ST38', 176, 'L11419', 'R6'),
('ST39', 427, 'L11421', 'R6'),
('ST4', 104, 'L9531', 'R2'),
('ST40', 427, 'L11421', 'R10'),
('ST41', 427, 'L11421', 'R14'),
('ST42', 427, 'L11421', 'R2'),
('ST422', 142, 'L4765', 'R10'),
('ST423', 142, 'L4765', 'R14'),
('ST424', 142, 'L4765', 'R2'),
('ST425', 110, 'L4770', 'R2'),
('ST426', 110, 'L4770', 'R6'),
('ST427', 110, 'L4770', 'R10'),
('ST428', 110, 'L4770', 'R14'),
('ST429', 160, 'L4794', 'R6'),
('ST43', 318, 'L11427', 'R6'),
('ST430', 160, 'L4794', 'R10'),
('ST44', 318, 'L11427', 'R2'),
('ST45', 467, 'L11431', 'R6'),
('ST46', 467, 'L11431', 'R10'),
('ST47', 467, 'L11431', 'R14'),
('ST48', 467, 'L11431', 'R2'),
('ST488', 180, 'L1882', 'R14'),
('ST489', 231, 'L1883', 'R2'),
```

```
('ST49', 216, 'L11434', 'R6'),
('ST490', 231, 'L1883', 'R6'),
('ST5', 84, 'L9532', 'R6'),
('ST50', 216, 'L11434', 'R10'),
('ST51', 216, 'L11434', 'R14'),
('ST511', 427, 'L11421', 'R1'),
('ST512', 88, 'L12260', 'R14'),
('ST513', 100, 'L12264', 'R2'),
('ST514', 100, 'L12264', 'R6'),
('ST515', 100, 'L12264', 'R10'),
('ST516', 100, 'L12264', 'R14'),
('ST517', 168, 'L16888', 'R2'),
('ST519', 159, 'L14416', 'R2'),
('ST52', 216, 'L11434', 'R2'),
('ST520', 159, 'L14416', 'R6'),
('ST53', 271, 'L11480', 'R6'),
('ST54', 271, 'L11480', 'R10'),
('ST55', 271, 'L11480', 'R1'),
('ST56', 271, 'L11480', 'R5'),
('ST57', 98, 'L11495', 'R16'),
('ST58', 98, 'L11495', 'R7'),
('ST59', 98, 'L11495', 'R1'),
('ST6', 84, 'L9532', 'R10'),
('ST60', 98, 'L11495', 'R5'),
('ST61', 98, 'L1734', 'R16'),
('ST62', 98, 'L1734', 'R7'),
('ST63', 98, 'L1734', 'R3'),
('ST64', 98, 'L1734', 'R13'),
('ST65', 317, 'L1735', 'R13'),
('ST66', 317, 'L1735', 'R5'),
('ST67', 317, 'L1735', 'R14'),
('ST68', 317, 'L1735', 'R2'),
('ST69', 126, 'L1736', 'R2'),
('ST7', 84, 'L9532', 'R14'),
('ST70', 126, 'L1736', 'R6'),
('ST71', 126, 'L1736', 'R10'),
('ST711', 98, 'L11495', 'R4'),
('ST72', 126, 'L1736', 'R14'),
('ST73', 85, 'L1737', 'R6'),
('ST74', 85, 'L1737', 'R10'),
('ST75', 85, 'L1737', 'R14'),
('ST76', 85, 'L1737', 'R2'),
('ST77', 254, 'L1738', 'R2'),
('ST78', 254, 'L1738', 'R6'),
('ST79', 254, 'L1738', 'R10'),
('ST8', 84, 'L9532', 'R2'),
('ST80', 254, 'L1738', 'R14'),
```

```
('ST81', 382, 'L1940', 'R6'),
('ST82', 382, 'L1940', 'R10'),
('ST83', 382, 'L1940', 'R14'),
('ST84', 382, 'L1940', 'R2'),
('ST85', 295, 'L1941', 'R6'),
('ST86', 295, 'L1941', 'R10'),
('ST87', 295, 'L1941', 'R14'),
('ST88', 295, 'L1941', 'R2'),
('ST89', 84, 'L1942', 'R6'),
('ST9', 50, 'L9533', 'R2'),
('ST90', 84, 'L1942', 'R10'),
('ST91', 84, 'L1942', 'R14'),
('ST92', 84, 'L1942', 'R2'),
('ST93', 234, 'L1943', 'R2'),
('ST94', 234, 'L1943', 'R6'),
('ST95', 234, 'L1943', 'R10'),
('ST96', 234, 'L1943', 'R14'),
('ST97', 139, 'L1944', 'R6'),
('ST98', 139, 'L1944', 'R10'),
('ST99', 139, 'L1944', 'R14')]
```

[12]:
```sql
%%sql
SELECT w.ws_property_id, w.location, w.property_type, sp.percentile_10th_price,
 →sp.percentile_90th_price, sp.sample_nightly_rent_price
FROM watershed_property_info w JOIN st_rental_prices sp
  ON w.location=sp.location AND w.property_type=sp.property_type
GROUP BY w.ws_property_id
LIMIT 10;
```

 * mysql://studentuser:***@localhost/capstone
10 rows affected.

[12]:
```
[('W1', 'L9531', 'R6', 114, 153, 148),
 ('W10', 'L9533', 'R6', 111, 149, 133),
 ('W100', 'L1944', 'R2', 108, 610, 372),
 ('W101', 'L15257', 'R2', 178, 533, 302),
 ('W102', 'L15257', 'R6', 221, 617, 429),
 ('W103', 'L15257', 'R10', 202, 646, 380),
 ('W104', 'L15257', 'R14', 197, 639, 374),
 ('W105', 'L15260', 'R2', 114, 477, 386),
 ('W106', 'L15260', 'R6', 80, 583, 212),
 ('W107', 'L15260', 'R10', 239, 1431, 969)]
```

[13]:
```sql
%%sql
SELECT w.ws_property_id, w.location, w.property_type, Sample.Occupancy
FROM watershed_property_info w LEFT JOIN (SELECT si.location, si.property_type,
 →sd.st_property, COUNT(sd.rental_date)/365
```

```
                                                AS Occupancy
                                                FROM st_property_info si JOIN␣
 ↪st_rental_dates sd

                                                  ON si.st_property_id=sd.st_property
                                                WHERE EXTRACT(year FROM␣
 ↪rental_date)=2015

                                                GROUP BY st_property) AS Sample
   ON w.location=Sample.location AND w.property_type=Sample.property_type
 GROUP BY w.ws_property_id
 LIMIT 10;
```

 * mysql://studentuser:***@localhost/capstone
10 rows affected.

[13]: [('W1', 'L9531', 'R6', Decimal('0.1616')),
      ('W10', 'L9533', 'R6', Decimal('0.3479')),
      ('W100', 'L1944', 'R2', Decimal('0.3973')),
      ('W101', 'L15257', 'R2', Decimal('0.3644')),
      ('W102', 'L15257', 'R6', Decimal('0.4110')),
      ('W103', 'L15257', 'R10', Decimal('0.4110')),
      ('W104', 'L15257', 'R14', Decimal('0.5260')),
      ('W105', 'L15260', 'R2', Decimal('0.4329')),
      ('W106', 'L15260', 'R6', Decimal('0.6959')),
      ('W107', 'L15260', 'R10', Decimal('0.1096'))]

[14]:
```sql
%%sql
SELECT w.ws_property_id, w.location, w.property_type, l.city, l.state, l.
 ↪zipcode, p.apt_house, p.num_bedrooms, p.kitchen,
p.shared, w.current_monthly_rent, sample_price.percentile_10th_price,␣
 ↪sample_price.percentile_90th_price,
sample_price.sample_nightly_rent_price
FROM watershed_property_info w, location l, property_type p,
    (SELECT w.ws_property_id, w.location, w.property_type,
     sp.percentile_10th_price, sp.percentile_90th_price,
     sp.sample_nightly_rent_price
     FROM watershed_property_info w JOIN st_rental_prices sp
       ON w.location=sp.location AND w.property_type=sp.property_type
     GROUP BY w.ws_property_id) AS sample_price
WHERE w.property_type=p.property_type_id AND w.location=l.location_id AND w.
 ↪ws_property_id=sample_price.ws_property_id
GROUP BY w.ws_property_id
LIMIT 10;
```

 * mysql://studentuser:***@localhost/capstone
10 rows affected.

```
[14]: [('W1', 'L9531', 'R6', 'Chapel Hill', 'NC', 27514, 'apartment', '2', 'Y', 'N',
       1060, 114, 153, 148),
       ('W10', 'L9533', 'R6', 'Chapel Hill', 'NC', 27517, 'apartment', '2', 'Y', 'N',
       1200, 111, 149, 133),
       ('W100', 'L1944', 'R2', 'San Francisco', 'CA', 94129, 'apartment', '1', 'Y',
       'N', 3300, 108, 610, 372),
       ('W101', 'L15257', 'R2', 'Austin', 'TX', 78702, 'apartment', '1', 'Y', 'N',
       1400, 178, 533, 302),
       ('W102', 'L15257', 'R6', 'Austin', 'TX', 78702, 'apartment', '2', 'Y', 'N',
       2000, 221, 617, 429),
       ('W103', 'L15257', 'R10', 'Austin', 'TX', 78702, 'house', '1', 'Y', 'N', 1600,
       202, 646, 380),
       ('W104', 'L15257', 'R14', 'Austin', 'TX', 78702, 'house', '2', 'Y', 'N', 2800,
       197, 639, 374),
       ('W105', 'L15260', 'R2', 'Austin', 'TX', 78705, 'apartment', '1', 'Y', 'N',
       1100, 114, 477, 386),
       ('W106', 'L15260', 'R6', 'Austin', 'TX', 78705, 'apartment', '2', 'Y', 'N',
       1900, 80, 583, 212),
       ('W107', 'L15260', 'R10', 'Austin', 'TX', 78705, 'house', '1', 'Y', 'N', 1800,
       239, 1431, 969)]
```

```sql
[6]: %%sql
     SELECT w.ws_property_id, w.location, w.property_type, l.city, l.state, l.
      ↪zipcode, p.apt_house, p.num_bedrooms, p.kitchen,
     p.shared, w.current_monthly_rent, sample_price.percentile_10th_price,␣
      ↪sample_price.percentile_90th_price,
     sample_price.sample_nightly_rent_price, sample_dates.Occupancy
     FROM watershed_property_info w, location l, property_type p,
         (SELECT w.ws_property_id, w.location, w.property_type,
          sp.percentile_10th_price, sp.percentile_90th_price,
          sp.sample_nightly_rent_price
          FROM watershed_property_info w JOIN st_rental_prices sp
            ON w.location=sp.location AND w.property_type=sp.property_type
          GROUP BY w.ws_property_id) AS sample_price,
         (SELECT w.ws_property_id, w.location, w.property_type, Sample.Occupancy
          FROM watershed_property_info w LEFT JOIN (SELECT si.location, si.
      ↪property_type, sd.st_property, COUNT(sd.rental_date)/365
                                          AS Occupancy
                                          FROM st_property_info si JOIN␣
      ↪st_rental_dates sd
                                            ON si.st_property_id=sd.
      ↪st_property
                                          WHERE EXTRACT(year FROM␣
      ↪rental_date)=2015
                                          GROUP BY st_property) AS Sample
            ON w.location=Sample.location AND w.property_type=Sample.property_type
          GROUP BY w.ws_property_id) AS sample_dates
```

```
WHERE w.property_type=p.property_type_id AND w.location=l.location_id AND w.
 →ws_property_id=sample_price.ws_property_id AND
w.ws_property_id=sample_dates.ws_property_id
GROUP BY w.ws_property_id ;
```

 * mysql://studentuser:***@localhost/capstone
244 rows affected.

[6]: [('W1', 'L9531', 'R6', 'Chapel Hill', 'NC', 27514, 'apartment', '2', 'Y', 'N',
    1060, 114, 153, 148, Decimal('0.1616')),
     ('W10', 'L9533', 'R6', 'Chapel Hill', 'NC', 27517, 'apartment', '2', 'Y', 'N',
    1200, 111, 149, 133, Decimal('0.3479')),
     ('W100', 'L1944', 'R2', 'San Francisco', 'CA', 94129, 'apartment', '1', 'Y',
    'N', 3300, 108, 610, 372, Decimal('0.3973')),
     ('W101', 'L15257', 'R2', 'Austin', 'TX', 78702, 'apartment', '1', 'Y', 'N',
    1400, 178, 533, 302, Decimal('0.3644')),
     ('W102', 'L15257', 'R6', 'Austin', 'TX', 78702, 'apartment', '2', 'Y', 'N',
    2000, 221, 617, 429, Decimal('0.4110')),
     ('W103', 'L15257', 'R10', 'Austin', 'TX', 78702, 'house', '1', 'Y', 'N', 1600,
    202, 646, 380, Decimal('0.4110')),
     ('W104', 'L15257', 'R14', 'Austin', 'TX', 78702, 'house', '2', 'Y', 'N', 2800,
    197, 639, 374, Decimal('0.5260')),
     ('W105', 'L15260', 'R2', 'Austin', 'TX', 78705, 'apartment', '1', 'Y', 'N',
    1100, 114, 477, 386, Decimal('0.4329')),
     ('W106', 'L15260', 'R6', 'Austin', 'TX', 78705, 'apartment', '2', 'Y', 'N',
    1900, 80, 583, 212, Decimal('0.6959')),
     ('W107', 'L15260', 'R10', 'Austin', 'TX', 78705, 'house', '1', 'Y', 'N', 1800,
    239, 1431, 969, Decimal('0.1096')),
     ('W108', 'L15260', 'R14', 'Austin', 'TX', 78705, 'house', '2', 'Y', 'N', 3200,
    236, 1533, 885, Decimal('0.2247')),
     ('W109', 'L15264', 'R2', 'Austin', 'TX', 78723, 'apartment', '1', 'Y', 'N',
    1000, 138, 550, 287, Decimal('0.2192')),
     ('W11', 'L9533', 'R10', 'Chapel Hill', 'NC', 27517, 'house', '1', 'Y', 'N',
    1000, 116, 296, 206, Decimal('0.3918')),
     ('W110', 'L15264', 'R6', 'Austin', 'TX', 78723, 'apartment', '2', 'Y', 'N',
    1300, 175, 917, 462, Decimal('0.5370')),
     ('W111', 'L15264', 'R10', 'Austin', 'TX', 78723, 'house', '1', 'Y', 'N', 1200,
    130, 821, 389, Decimal('0.5123')),
     ('W112', 'L15264', 'R14', 'Austin', 'TX', 78723, 'house', '2', 'Y', 'N', 1600,
    241, 866, 678, Decimal('0.3616')),
     ('W113', 'L15278', 'R2', 'Austin', 'TX', 78744, 'apartment', '1', 'Y', 'N',
    800, 134, 288, 163, Decimal('0.8438')),
     ('W114', 'L15278', 'R6', 'Austin', 'TX', 78744, 'apartment', '2', 'Y', 'N',
    1200, 234, 794, 374, Decimal('0.9151')),
     ('W115', 'L15278', 'R10', 'Austin', 'TX', 78744, 'house', '1', 'Y', 'N', 900,
    252, 547, 444, Decimal('0.4301')),
     ('W116', 'L15278', 'R14', 'Austin', 'TX', 78744, 'house', '2', 'Y', 'N', 1100,
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246, 616, 426, Decimal('0.4822')),
 ('W117', 'L15280', 'R2', 'Austin', 'TX', 78746, 'apartment', '1', 'Y', 'N',
1000, 171, 457, 332, Decimal('0.4904')),
 ('W118', 'L15280', 'R6', 'Austin', 'TX', 78746, 'apartment', '2', 'Y', 'N',
1400, 262, 567, 430, Decimal('0.5233')),
 ('W119', 'L15280', 'R10', 'Austin', 'TX', 78746, 'house', '1', 'Y', 'N', 1500,
229, 859, 662, Decimal('0.4493')),
 ('W12', 'L9533', 'R14', 'Chapel Hill', 'NC', 27517, 'house', '2', 'Y', 'N',
1300, 136, 336, 186, Decimal('0.6603')),
 ('W120', 'L15280', 'R14', 'Austin', 'TX', 78746, 'house', '2', 'Y', 'N', 1600,
449, 899, 696, Decimal('0.4877')),
 ('W121', 'L463', 'R2', 'Bentonville', 'AR', 72712, 'apartment', '1', 'Y', 'N',
600, 132, 226, 182, Decimal('0.4384')),
 ('W122', 'L463', 'R6', 'Bentonville', 'AR', 72712, 'apartment', '2', 'Y', 'N',
800, 157, 340, 241, Decimal('0.5315')),
 ('W123', 'L463', 'R10', 'Bentonville', 'AR', 72712, 'house', '1', 'Y', 'N',
700, 215, 377, 363, Decimal('0.1397')),
 ('W124', 'L463', 'R14', 'Bentonville', 'AR', 72712, 'house', '2', 'Y', 'N',
1000, 202, 374, 301, Decimal('0.4685')),
 ('W125', 'L464', 'R2', 'Bentonville', 'AR', 72719, 'apartment', '1', 'Y', 'N',
700, 94, 356, 212, Decimal('0.5014')),
 ('W126', 'L464', 'R6', 'Bentonville', 'AR', 72719, 'apartment', '2', 'Y', 'N',
900, 69, 485, 340, Decimal('0.3068')),
 ('W127', 'L464', 'R10', 'Bentonville', 'AR', 72719, 'house', '1', 'Y', 'N',
1000, 84, 376, 266, Decimal('0.5205')),
 ('W128', 'L464', 'R14', 'Bentonville', 'AR', 72719, 'house', '2', 'Y', 'N',
1200, 109, 490, 442, Decimal('0.1288')),
 ('W129', 'L2314', 'R2', 'Denver', 'CO', 80204, 'apartment', '1', 'Y', 'N',
1200, 145, 434, 354, Decimal('0.2411')),
 ('W13', 'L9534', 'R6', 'Chapel Hill', 'NC', 27707, 'apartment', '2', 'Y', 'N',
920, 111, 147, 123, Decimal('0.4521')),
 ('W130', 'L2314', 'R6', 'Denver', 'CO', 80204, 'apartment', '2', 'Y', 'N',
1300, 228, 457, 377, Decimal('0.4795')),
 ('W131', 'L2314', 'R10', 'Denver', 'CO', 80204, 'house', '1', 'Y', 'N', 1100,
90, 375, 318, Decimal('0.2712')),
 ('W132', 'L2314', 'R14', 'Denver', 'CO', 80204, 'house', '2', 'Y', 'N', 1200,
128, 238, 198, Decimal('0.4301')),
 ('W133', 'L2318', 'R2', 'Denver', 'CO', 80209, 'apartment', '1', 'Y', 'N',
1300, 126, 188, 149, Decimal('0.5671')),
 ('W134', 'L2318', 'R6', 'Denver', 'CO', 80209, 'apartment', '2', 'Y', 'N',
1700, 152, 247, 210, Decimal('0.3205')),
 ('W135', 'L2318', 'R10', 'Denver', 'CO', 80209, 'house', '1', 'Y', 'N', 1200,
141, 263, 187, Decimal('0.4493')),
 ('W136', 'L2318', 'R14', 'Denver', 'CO', 80209, 'house', '2', 'Y', 'N', 1900,
157, 314, 225, Decimal('0.5096')),
 ('W137', 'L2323', 'R2', 'Denver', 'CO', 80218, 'apartment', '1', 'Y', 'N',
1000, 93, 159, 123, Decimal('0.7205')),
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('W138', 'L2323', 'R6', 'Denver', 'CO', 80218, 'apartment', '2', 'Y', 'N',
1500, 145, 462, 263, Decimal('0.4959')),
 ('W139', 'L2323', 'R10', 'Denver', 'CO', 80218, 'house', '1', 'Y', 'N', 1300,
181, 316, 238, Decimal('0.4493')),
 ('W14', 'L9534', 'R10', 'Chapel Hill', 'NC', 27707, 'house', '1', 'Y', 'N',
850, 96, 245, 146, Decimal('0.5315')),
 ('W140', 'L2323', 'R14', 'Denver', 'CO', 80218, 'house', '2', 'Y', 'N', 1800,
145, 412, 349, Decimal('0.1507')),
 ('W141', 'L2325', 'R2', 'Denver', 'CO', 80220, 'apartment', '1', 'Y', 'N',
1100, 99, 215, 147, Decimal('0.6000')),
 ('W142', 'L2325', 'R6', 'Denver', 'CO', 80220, 'apartment', '2', 'Y', 'N',
1400, 120, 188, 151, Decimal('0.5260')),
 ('W143', 'L2325', 'R10', 'Denver', 'CO', 80220, 'house', '1', 'Y', 'N', 1300,
263, 489, 429, Decimal('0.2110')),
 ('W144', 'L2325', 'R14', 'Denver', 'CO', 80220, 'house', '2', 'Y', 'N', 1900,
335, 502, 441, Decimal('0.3315')),
 ('W145', 'L2338', 'R2', 'Denver', 'CO', 80249, 'apartment', '1', 'Y', 'N', 900,
98, 195, 144, Decimal('0.3288')),
 ('W146', 'L2338', 'R6', 'Denver', 'CO', 80249, 'apartment', '2', 'Y', 'N',
1400, 77, 260, 136, Decimal('0.6192')),
 ('W147', 'L2338', 'R10', 'Denver', 'CO', 80249, 'house', '1', 'Y', 'N', 1400,
173, 322, 305, Decimal('0.2712')),
 ('W148', 'L2338', 'R14', 'Denver', 'CO', 80249, 'house', '2', 'Y', 'N', 1700,
176, 469, 425, Decimal('0.3288')),
 ('W149', 'L3244', 'R2', 'Miami', 'FL', 33122, 'apartment', '1', 'Y', 'N', 800,
86, 224, 176, Decimal('0.4137')),
 ('W15', 'L9534', 'R14', 'Chapel Hill', 'NC', 27707, 'house', '2', 'Y', 'N',
900, 111, 276, 169, Decimal('0.4795')),
 ('W150', 'L3244', 'R6', 'Miami', 'FL', 33122, 'apartment', '2', 'Y', 'N', 1300,
127, 276, 207, Decimal('0.6301')),
 ('W151', 'L3244', 'R10', 'Miami', 'FL', 33122, 'house', '1', 'Y', 'N', 1400,
222, 381, 244, Decimal('0.9041')),
 ('W152', 'L3244', 'R14', 'Miami', 'FL', 33122, 'house', '2', 'Y', 'N', 1900,
386, 773, 536, Decimal('0.5425')),
 ('W153', 'L3256', 'R2', 'Miami', 'FL', 33137, 'apartment', '1', 'Y', 'N', 1700,
136, 476, 476, Decimal('0.0795')),
 ('W154', 'L3256', 'R6', 'Miami', 'FL', 33137, 'apartment', '2', 'Y', 'N', 2400,
173, 690, 360, Decimal('0.5507')),
 ('W155', 'L3256', 'R10', 'Miami', 'FL', 33137, 'house', '1', 'Y', 'N', 2100,
448, 2128, 1477, Decimal('0.6932')),
 ('W156', 'L3256', 'R14', 'Miami', 'FL', 33137, 'house', '2', 'Y', 'N', 3200,
450, 2699, 1265, Decimal('0.7151')),
 ('W157', 'L3261', 'R2', 'Miami', 'FL', 33146, 'apartment', '1', 'Y', 'N', 1300,
291, 387, 328, Decimal('0.5205')),
 ('W158', 'L3261', 'R6', 'Miami', 'FL', 33146, 'apartment', '2', 'Y', 'N', 1700,
203, 318, 246, Decimal('0.1589')),
 ('W159', 'L3261', 'R10', 'Miami', 'FL', 33146, 'house', '1', 'Y', 'N', 1400,
```

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287, 395, 325, Decimal('0.5452')),
 ('W16', 'L9534', 'R2', 'Chapel Hill', 'NC', 27707, 'apartment', '1', 'Y', 'N',
750, 51, 179, 94, Decimal('0.4795')),
 ('W160', 'L3261', 'R14', 'Miami', 'FL', 33146, 'house', '2', 'Y', 'N', 1900,
376, 502, 428, Decimal('0.5863')),
 ('W161', 'L3262', 'R2', 'Miami', 'FL', 33149, 'apartment', '1', 'Y', 'N', 1600,
126, 352, 188, Decimal('0.6795')),
 ('W162', 'L3262', 'R6', 'Miami', 'FL', 33149, 'apartment', '2', 'Y', 'N', 2200,
119, 505, 274, Decimal('0.5781')),
 ('W163', 'L3262', 'R10', 'Miami', 'FL', 33149, 'house', '1', 'Y', 'N', 1500,
486, 1215, 860, Decimal('0.4110')),
 ('W164', 'L3262', 'R14', 'Miami', 'FL', 33149, 'house', '2', 'Y', 'N', 2400,
516, 1650, 729, Decimal('0.6822')),
 ('W165', 'L3264', 'R2', 'Miami', 'FL', 33178, 'apartment', '1', 'Y', 'N', 1600,
160, 321, 174, Decimal('0.8247')),
 ('W166', 'L3264', 'R6', 'Miami', 'FL', 33178, 'apartment', '2', 'Y', 'N', 1900,
168, 364, 308, Decimal('0.2164')),
 ('W167', 'L3264', 'R10', 'Miami', 'FL', 33178, 'house', '1', 'Y', 'N', 1400,
226, 368, 308, Decimal('0.6000')),
 ('W168', 'L3264', 'R14', 'Miami', 'FL', 33178, 'house', '2', 'Y', 'N', 2000,
285, 428, 342, Decimal('0.3918')),
 ('W169', 'L10126', 'R2', 'Omaha', 'NE', 68046, 'apartment', '1', 'Y', 'N',
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3200, 154, 480, 154, Decimal('0.6795')),
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103, 807, 200, Decimal('0.8685')),
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133, 1040, 621, Decimal('0.3479')),
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3900, 116, 361, 284, Decimal('0.5041')),
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2700, 110, 515, 236, Decimal('0.5671')),
 ('W7', 'L9532', 'R14', 'Chapel Hill', 'NC', 27516, 'house', '2', 'Y', 'N',
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151, 673, 255, Decimal('0.5918')),
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278, 711, 441, Decimal('0.5726')),
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2500, 98, 460, 356, Decimal('0.4247')),
 ('W77', 'L1738', 'R2', 'Palo Alto', 'CA', 94306, 'apartment', '1', 'Y', 'N',
2500, 108, 507, 437, Decimal('0.0795')),
 ('W78', 'L1738', 'R6', 'Palo Alto', 'CA', 94306, 'apartment', '2', 'Y', 'N',
3300, 270, 543, 461, Decimal('0.3178')),
 ('W79', 'L1738', 'R10', 'Palo Alto', 'CA', 94306, 'house', '1', 'Y', 'N', 4500,
186, 829, 669, Decimal('0.3123')),
 ('W8', 'L9532', 'R2', 'Chapel Hill', 'NC', 27516, 'apartment', '1', 'Y', 'N',
500, 50, 174, 121, Decimal('0.3973')),
 ('W80', 'L1738', 'R14', 'Palo Alto', 'CA', 94306, 'house', '2', 'Y', 'N', 4200,
319, 815, 437, Decimal('0.6110')),
 ('W81', 'L1940', 'R6', 'San Francisco', 'CA', 94103, 'apartment', '2', 'Y',
'N', 3600, 332, 805, 663, Decimal('0.2329')),
 ('W82', 'L1940', 'R10', 'San Francisco', 'CA', 94103, 'house', '1', 'Y', 'N',
4000, 179, 629, 337, Decimal('0.5068')),
 ('W83', 'L1940', 'R14', 'San Francisco', 'CA', 94103, 'house', '2', 'Y', 'N',
5500, 227, 813, 447, Decimal('0.6164')),
 ('W84', 'L1940', 'R2', 'San Francisco', 'CA', 94103, 'apartment', '1', 'Y',
'N', 3000, 115, 650, 610, Decimal('0.1014')),
 ('W85', 'L1941', 'R6', 'San Francisco', 'CA', 94110, 'apartment', '2', 'Y',
'N', 4000, 220, 534, 302, Decimal('0.3151')),
 ('W86', 'L1941', 'R10', 'San Francisco', 'CA', 94110, 'house', '1', 'Y', 'N',
4000, 128, 450, 213, Decimal('0.6521')),
 ('W87', 'L1941', 'R14', 'San Francisco', 'CA', 94110, 'house', '2', 'Y', 'N',
5000, 152, 546, 364, Decimal('0.5123')),
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 ('W88', 'L1941', 'R2', 'San Francisco', 'CA', 94110, 'apartment', '1', 'Y',
'N', 3200, 94, 528, 251, Decimal('0.6274')),
 ('W89', 'L1942', 'R6', 'San Francisco', 'CA', 94112, 'apartment', '2', 'Y',
'N', 3500, 194, 471, 343, Decimal('0.3973')),
 ('W9', 'L9533', 'R2', 'Chapel Hill', 'NC', 27517, 'apartment', '1', 'Y', 'N',
965, 50, 174, 125, Decimal('0.3753')),
 ('W90', 'L1942', 'R10', 'San Francisco', 'CA', 94112, 'house', '1', 'Y', 'N',
3200, 138, 485, 251, Decimal('0.3342')),
 ('W91', 'L1942', 'R14', 'San Francisco', 'CA', 94112, 'house', '2', 'Y', 'N',
3500, 152, 547, 404, Decimal('0.3616')),
 ('W92', 'L1942', 'R2', 'San Francisco', 'CA', 94112, 'apartment', '1', 'Y',
'N', 3000, 77, 432, 161, Decimal('0.2658')),
 ('W93', 'L1943', 'R2', 'San Francisco', 'CA', 94118, 'apartment', '1', 'Y',
'N', 2600, 100, 565, 408, Decimal('0.3863')),
 ('W94', 'L1943', 'R6', 'San Francisco', 'CA', 94118, 'apartment', '2', 'Y',
'N', 4000, 204, 494, 284, Decimal('0.3151')),
 ('W95', 'L1943', 'R10', 'San Francisco', 'CA', 94118, 'house', '1', 'Y', 'N',
4000, 257, 903, 443, Decimal('0.5562')),
 ('W96', 'L1943', 'R14', 'San Francisco', 'CA', 94118, 'house', '2', 'Y', 'N',
5100, 256, 916, 718, Decimal('0.4493')),
 ('W97', 'L1944', 'R6', 'San Francisco', 'CA', 94129, 'apartment', '2', 'Y',
'N', 5600, 265, 644, 478, Decimal('0.3178')),
 ('W98', 'L1944', 'R10', 'San Francisco', 'CA', 94129, 'house', '1', 'Y', 'N',
5000, 236, 829, 533, Decimal('0.5123')),
 ('W99', 'L1944', 'R14', 'San Francisco', 'CA', 94129, 'house', '2', 'Y', 'N',
6000, 244, 872, 566, Decimal('0.3699'))]
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