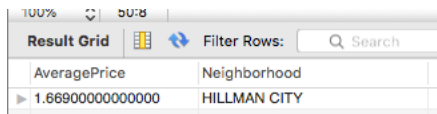PM3 Submission
Team: Red Cats

1,
Looking for the most affordable rental neighborhood
SELECT AVG(CompleteTable.Price_2018) AS AveragePrice,CompleteTable.Neighborhood
FROM (
        SELECT HistoricalRental.Price_2018, ZipCodesToNeighborhood.ZipCode,
ZipCodesToNeighborhood.Neighborhood
  FROM (
            SELECT Beat.ZipCode AS ZipCode, Crimes.Neighborhood AS Neighborhood
            FROM Beat
    INNER JOIN Crimes
                ON Beat.Beat = Crimes.Beat) AS ZipCodesToNeighborhood
            INNER JOIN HistoricalRental
                ON HistoricalRental.ZipCode = ZipCodesToNeighborhood.ZipCode) AS
CompleteTable
GROUP BY CompleteTable.Neighborhood
ORDER BY AveragePrice ASC
LIMIT 1;

2,
crime demographic rank in each neighborhood
 SELECT CrimeSubCat, Neighborhood, CNT,
  @CrimeSubCat:=CASE WHEN @Neighborhood <> Neighborhood THEN 0 ELSE
@CrimeSubCat+1 END AS rn,
  @Neighborhood:=Neighborhood AS clset
FROM
 (SELECT @CrimeSubCat:= -1) s,
 (SELECT @Neighborhood:= -1) c,
 (SELECT *
  FROM (SELECT CrimeSubCat, COUNT(CrimeSubCat) AS CNT, Neighborhood
        FROM Crimes
        GROUP BY CrimeSubCat, Neighborhood) AS CrimeSubCategories
  ORDER BY Neighborhood, CNT desc
) t;

CrimeSubCat	Neighborhood	CNT	rn	clset
THEFT-SHOPLIFT	ALASKA JUNCTION	732	1	ALASKA JUNCTION
MOTOR VEHICLE THEFT	ALASKA JUNCTION	698	2	ALASKA JUNCTION
THEFT-ALL OTHER	ALASKA JUNCTION	691	3	ALASKA JUNCTION
BURGLARY-RESIDENTIAL	ALASKA JUNCTION	632	4	ALASKA JUNCTION
BURGLARY-COMMERCIAL	ALASKA JUNCTION	347	5	ALASKA JUNCTION
THEFT-BUILDING	ALASKA JUNCTION	314	6	ALASKA JUNCTION
BURGLARY-RESIDENTIAL-SEC...	ALASKA JUNCTION	208	7	ALASKA JUNCTION
DUI	ALASKA JUNCTION	192	8	ALASKA JUNCTION
TRESPASS	ALASKA JUNCTION	146	9	ALASKA JUNCTION
AGGRAVATED ASSAULT	ALASKA JUNCTION	135	10	ALASKA JUNCTION
THEFT-BICYCLE	ALASKA JUNCTION	102	11	ALASKA JUNCTION

3,

```
#Find the safest zipcodes with lower price
SELECT AVG(CompleteTable.Price) AS AveragePrice, COUNT(*) AS CrimeCNT,
CompleteTable.Neighborhood,CompleteTable.ZipCode
FROM (
        SELECT HistoricalRental.Price_2018 as Price, ZipCodesToNeighborhood.ZipCode,
ZipCodesToNeighborhood.Neighborhood
    FROM (
                SELECT Beat.ZipCode AS ZipCode, Crimes.Neighborhood AS Neighborhood
                FROM Beat
        RIGHT JOIN Crimes
                    ON Beat.Beat = Crimes.Beat) AS ZipCodesToNeighborhood
                INNER JOIN HistoricalRental
                    ON HistoricalRental.ZipCode = ZipCodesToNeighborhood.ZipCode)  AS
CompleteTable
GROUP BY CompleteTable.Neighborhood,  ZipCode
ORDER BY CrimeCNT ASC, AveragePrice ASC;
```

AveragePrice	Crime...	Neighborhood	ZipCode
1.66900000000000	1	SANDPOINT	98118
1.71400000000000	1	MAGNOLIA	98125
1.71400000000000	1	UNIVERSITY	98125
1.75100000000000	1	UNKNOWN	98133
1.77000000000000	1	MOUNT BAKER	98106
2.01000000000000	1	SANDPOINT	98199
2.06000000000000	1	WALLINGFORD	98136
2.07400000000000	1	UNKNOWN	98116
2.09900000000000	1	UNKNOWN	98144
2.09900000000000	1	GEORGETOWN	98144

4,
```
# Which 5 zipcodes has the cheapest medium rental price in terms of price/sft rental in 2017?
SELECT ZipCode, Price_2017
FROM HistoricalRental
ORDER BY Price_2017
LIMIT 5;
```

ZipCode	Price_2017
98837	0.87800000...
98375	0.89700000...
98513	0.92600000...
98387	0.93300000...
98374	0.94100000...

5,
Which zipcodes are in the range of price $2/sft - $2.5/sft in 2018?
SELECT ZipCode, Price_2018
FROM HistoricalRental
WHERE Price_2018 < 2.5
AND Price_2018 > 2;

ZipCode	Price_2018
98103	2.24000000...
98004	2.09600000...
98107	2.31700000...
98117	2.09100000...
98116	2.07400000...
98144	2.09900000...
98119	2.26300000...
98112	2.30500000...
98199	2.01000000...
98136	2.06000000...

6,
Which 5 zipcodes has the cheapest medium rental price in terms of price/sft rental in 2018
ordered by number of car crisis in ascending order?
SELECT ZipCode, AVG(FINAL.Price_2018) AS Price, count(*) as CRIMECNT, CrimeSubCat
        FROM (
                SELECT Price_2018, CrimeSubCat, ZipNeighbors.ZipCode FROM (SELECT
Beat.ZipCode AS ZipCode, Crimes.CrimeSubCat
                FROM Crimes INNER JOIN Beat
                        ON Crimes.Beat = Beat.Beat
        Where Crimes.CrimeSubCat = 'CAR PROWL') AS ZipNeighbors
                INNER JOIN HistoricalRental
                        ON HistoricalRental.ZipCode = ZipNeighbors.ZipCode) AS FINAL
        GROUP BY ZipCode, CrimeSubCat
    ORDER BY Price, CRIMECNT
    LIMIT 5;

ZipCode	Price	CRIME...	CrimeSubCat
98118	1.66900000000...	6115	CAR PROWL
98125	1.71400000000...	5248	CAR PROWL
98133	1.75100000000...	4746	CAR PROWL
98106	1.77000000000...	4810	CAR PROWL
98115	1.97800000000...	5760	CAR PROWL

7,
What is the estimated rental price in 2019 for 98004?

SELECT HR.Price_2018 * (YoY + 1) as Price_2019, RF.ZipCode FROM RentalForecast RF inner join HistoricalRental HR on RF.ZipCode = HR.ZipCode
WHERE RF.ZipCode = 98004;

Price_2019	ZipC...
▶ 2.0057088536480000000...	98004

8,
Looking for the most affordable rental neighborhood in 2018
SELECT Neighborhood, AVG(Price) AS Price
FROM (
        SELECT Neighborhood, HistoricalRental.ZipCode, HistoricalRental.Price_2018 as Price
        FROM (
                (SELECT Crimes.Neighborhood AS Neighborhood, Beat.ZipCode AS ZipCode
                FROM Crimes INNER JOIN Beat
                        ON Crimes.Beat = Beat.Beat) AS ZipNeighbors
                INNER JOIN HistoricalRental
                        ON HistoricalRental.ZipCode = ZipNeighbors.ZipCode)
) AS Aggregation
GROUP BY Neighborhood
ORDER BY Price ASC
LIMIT 1;

Neighborhood	Price
▸ HILLMAN CITY	1.66900000000...

9,
second lowest income neighborhood to live in

SELECT *
FROM Residents
ORDER BY AverageIncome LIMIT 2,1;

Resident...	ZipC...	AverageHouseValue	AverageIncome	MedianAge
10	98110	200000	51088	52.40000000...
NULL	NULL	NULL	NULL	NULL

10,
#neighborhood with lowest crime
SELECT COUNT(*) AS CRIMECOUNT, Neighborhood
FROM Crimes
WHERE Neighborhood <> 'UNKNOWN'
GROUP BY Neighborhood
ORDER BY CRIMECOUNT ASC
LIMIT 1;

CRIMECOUNT	Neighborhood
160	COMMERCIAL HARBOR ISLAND