

In this Yelp Dataset Project, I will classify the success of a business using different measures. I will make several tables that contain companies that are successful/popular in a specific way. A business is especially successful if it is in multiple tables.

### **Table 1: Most Popular in a Category**

I will group businesses by category and determine which company attracts the most customers.

#### Query:

```
SELECT C.category_name, B.business_id, B.name, B.num_checkins AS most_checkins
FROM CategoryTable AS C, BusinessTable AS B,
    (SELECT C.category_name, MAX(B.num_checkins) AS max_checkins
     FROM CategoryTable AS C, BusinessTable as B
     WHERE B.business_id = C.business_id AND B.review_rating >= 3
     GROUP BY C.category_name) AS subquery
WHERE B.business_id=C.business_id AND C.category_name=subquery.category_name AND
      B.num_checkins=subquery.max_checkins
ORDER BY C.category_name;
```

This query will determine the businesses that get the most customers for each category. I first found the highest amount of check-ins per category, then found the corresponding business.

### **Table 2: Long-term and Well-Loved**

I will determine businesses that have been serving the community for a long time and have loyal customers. There are not multiple reviews by the same user for the same business, so I will only extract data from long-term businesses that have at least one review.

#### Query:

```
SELECT B.business_id, MIN(R.date) as earliest_review
FROM BusinessTable as B, ReviewTable as R
WHERE B.business_id=R.business_id AND B.is_open=True
GROUP BY B.business_id
HAVING MIN(R.date) < '2010-01-01';
```

I extracted this data by finding the date of the first review of the business and made sure it was earlier than 01/01/2010. This date was arbitrarily determined by myself. This shows that the business has been open for a long time. I also made sure that the business was not closed.

### **Table 3: Basic, Successful Query**

This query determines businesses that have an average rating greater than or equal to 4.2 and have at least 100 reviews. This is a sign of a good business.

#### Query:

```
SELECT B.business_id, B.name, B.review_rating, B.review_count
FROM BusinessTable as B
WHERE B.review_rating >= 4.2 AND review_count > 100;
```

### **Table 4: Better than Average Business**

This table finds the businesses that are better than the average check-in count for each zip code and category pair. These businesses are more successful than average ones.

#### Query:

```
SELECT B.business_id, B.name, B.postal_code, C.category_name, B.num_checkins,
AverageCheckins.average_checkins
FROM BusinessTable as B, CategoryTable as C,
    (SELECT B.postal_code, C.category_name, AVG(B.num_checkins) as average_checkins
    FROM CategoryTable as C, BusinessTable as B
    WHERE C.business_id=B.business_id
    GROUP BY B.postal_code, C.category_name
    ORDER BY C.category_name) as AverageCheckins
WHERE B.postal_code=AverageCheckins.postal_code AND B.business_id=C.business_id
    AND C.category_name=AverageCheckins.category_name AND B.num_checkins >
    AverageCheckins.average_checkins
ORDER BY B.name;
```