Title: "2014 Uber Analysis"

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OBJECTIVE

Our stakeholders want to have information on the 2014 data set to make data-driven decision

The points they would like us to highlight and point out are;

- 1. Which Day has the highest Trips?
- 2. What time of the day is the most active?
- 3. Which month is the most active?
- 4. The base that has the least activities

Any other analysis we would like to point out would be appreciated by our stakeholders

The Number of Trips by the Hour

By executing the query we are Categorizing the data_2014 into another dataframe called "hour_data", with

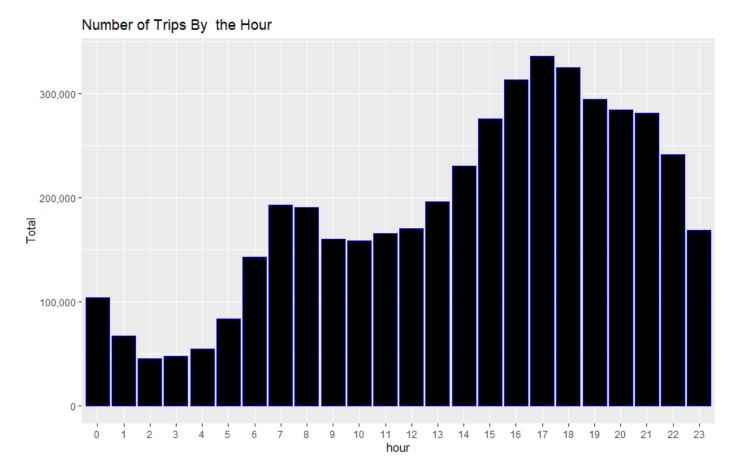
This we can see the number of Trips by the hour

The Data in Table format

Show 10 ▼ entries				Searc	earch:					
		hour	\$					Total 🏺		
1	0						1	03836		
2	1							67227		
3	2							45865	*	
Showing 1 to	10 of 24 entries			Previous	1	2	3	Nex	t.	

Visualize the hour data with bar chart

Here is the Bar chart for Number of trip by the hour



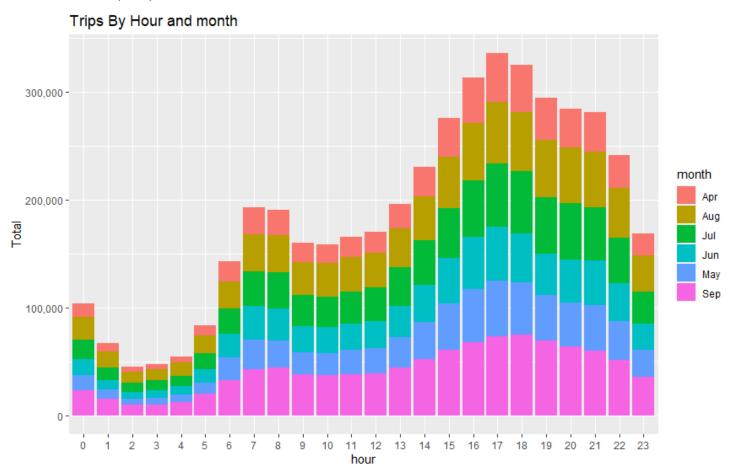
Analysis:

We noticed that most activities happen around the 15th to 21st hour aka 3pm to 9pm

Total trips per the hour of each month

We are to have an outlook on the total trips per hour each month

Visualize the trips by the hour of the months



Analysis:

Findings from the graph points that September has more rides than any other month. Let's get a deep dive into September trips

We like to see the most active hours for September

Visualization, The Active hours for the month of September

Trips By Hour for the month of September hour 60,000 -- 40,000 p 20,000 -10 11 12 13 14 15 16 17 18 19 20 21 22 23 hour

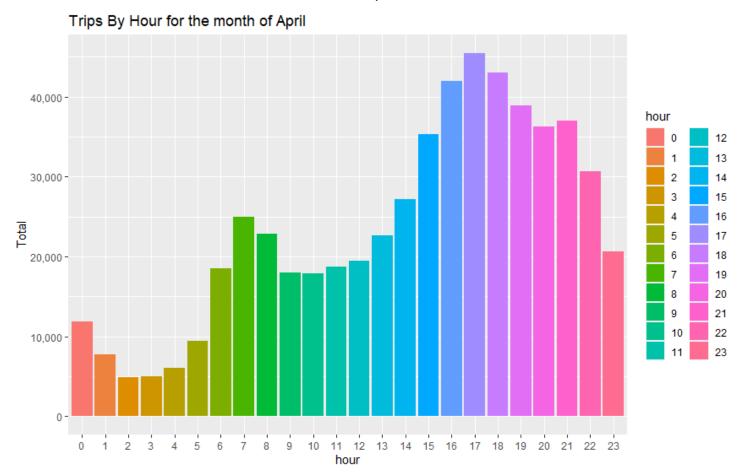
Analysis:

Around 6pm it goes above 70,000 rides, peaks 75,000 by 7pm then by 8pm drops below 70,000 rides by 11 it goes below 50,000 rides and drops to it lowest 8,000 by 3am

The April Analysis - For Comparison

April is the second most Active month, we would like to see if the hours with April compare with September if there is a similarity.

Visualization, The Active hours for the month of April

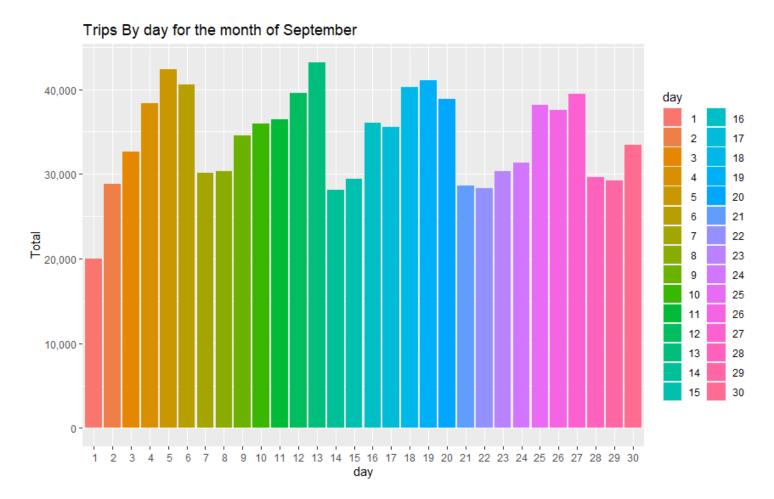


Analysis:

On the 17th hour (6pm) it hits above the 50,000 rides it peak Number of trips so we can say from 6pm is the start of the traffic as both April and September both have the same condition.

September data

We shall concentrate on the September data, to figure out the best day of the month



Analysis:

The 13th day has the highest trips, but why is that? I would suggest the MLB finals; Yankees against the Orioles.

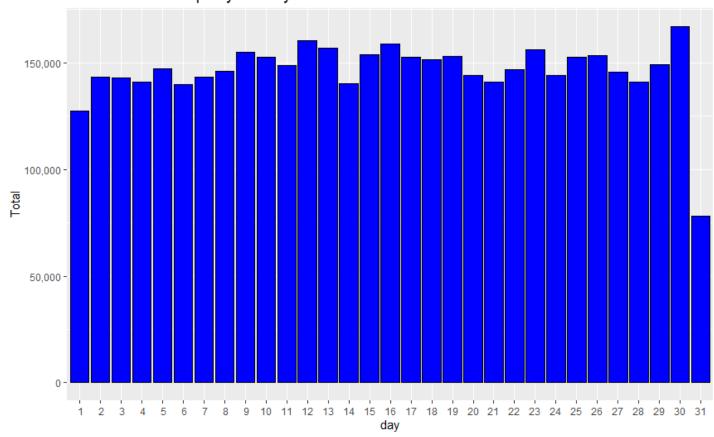
Also the 5th also had high traffic and that day was also a MLB match; the Yankees versus the RedSox

Trips by the Day

We would like to know which date of the month peaks the highest and the date that is the lowest

Visualization, The dates most active and least active

Total Number of Trips By the day

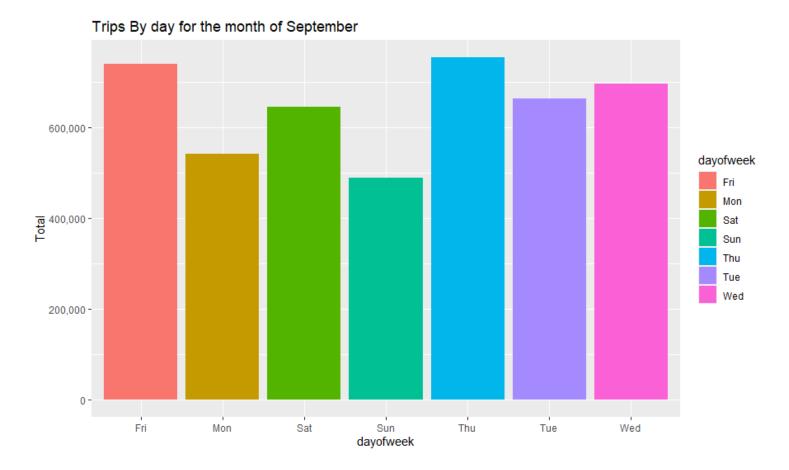


Basically uniformed distribution of trips apart from 31st and it is because a lot of months don't have a 31st day

And what day of the week gets the most Trips

	Day of the Week	Total
1	Fri	741139
2	Mon	541472
3	Sat	646114
4	Sun	490180
5	Thu	755145
6	Tue	663789
7	Wed	696488

Visualization of the most Trips day of the week for September



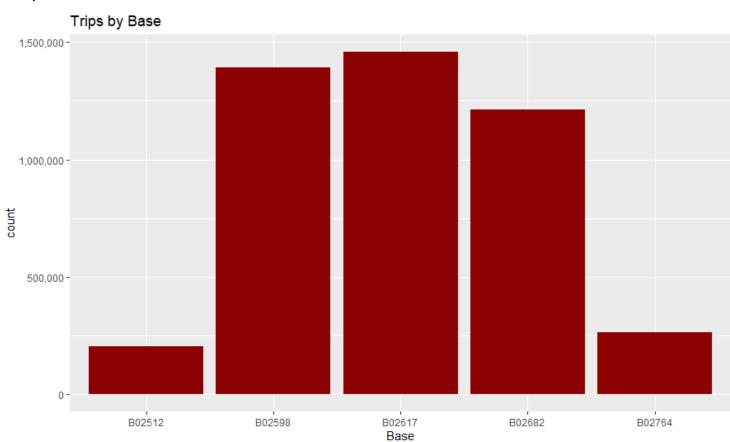
Analysis:

Thursday and Friday are the busiest

BASES

We shall perform a deep dive into the bases around NYC, getting to know the bases with the most trips, hours of activities and least of the category

Analysis of Bases

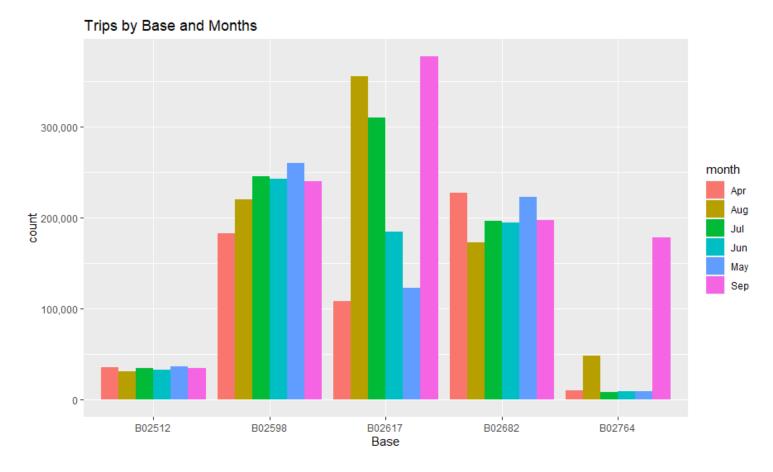


Analysis:

It seems B02512 and B02764 aren't getting much order hence they are not much profitable

Trips based on the bases and the months of operation

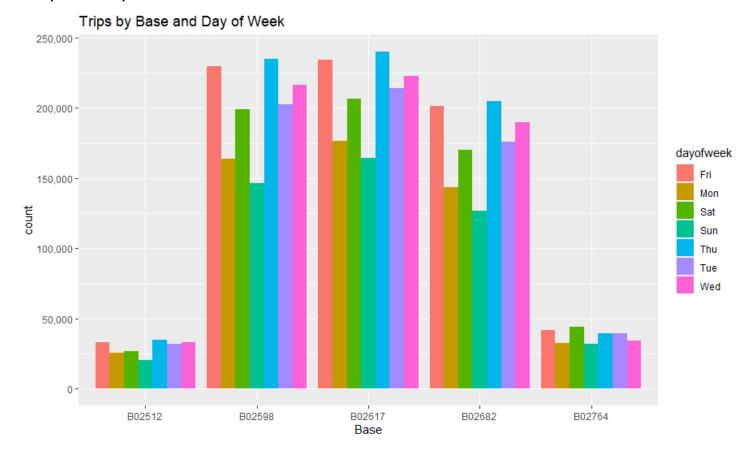
Here is a bar chart showing the number of trips for each months for each base.



Analysis:

Events in September on base B02764, April and May of B02617 must be observed. They have the highest spike of any month, and as you can observe overall April gets the lowest activities of all the base combined.

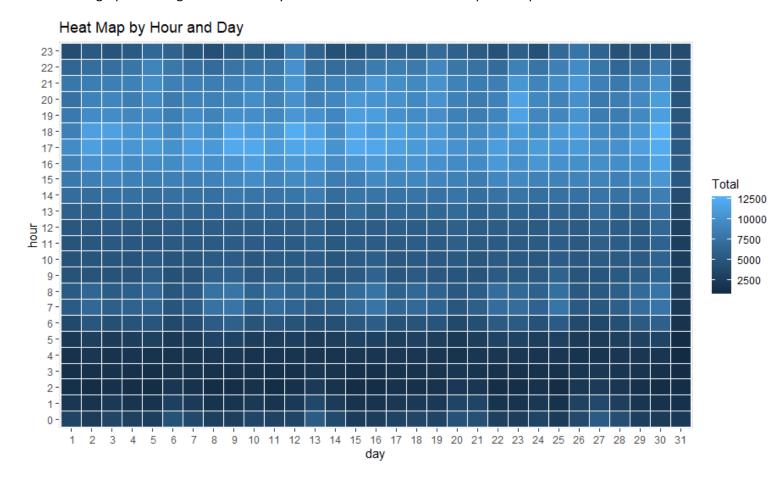
Analysis on day of the week based on base



Analysis of hours and days

Our Objective is to understand overall for every month what range of hours is the most active.

Below is the graph showing the overall analysis of the most active hours of April to September 2014



Analysis:

As confirmed by previous chart 15 to 21 hour is usually the most profitable hours of the day