UrbanClap Assignment

This is the solution to the Assignment 1 for the Business Analytics intern position in UrbanClap, Gurgaon

The following queries have been solved in this assignmnent

1. **Plot new users acquired every month on a bar chart (New user in a month = a customer who has placed a request for the first time ever)**
2. **30-Day repeat rate is defined as percentage of new users who have placed a 2nd order within 30 days of placing their first order.**
   What is the 30-day repeat rate of users acquired in December 2017?
3. **What is the 90-day repeat rate of users acquired in Jan,Feb,March 2018?**
4. **Use logistic regression to predict the 90-day repeat of users acquired in November 2018.**
5. **Plot the distribution of users by frequency of their 90-day repeat (Number of times user repeated within first 90 days)**

Solution 1 : Users acquired every month on a bar chart

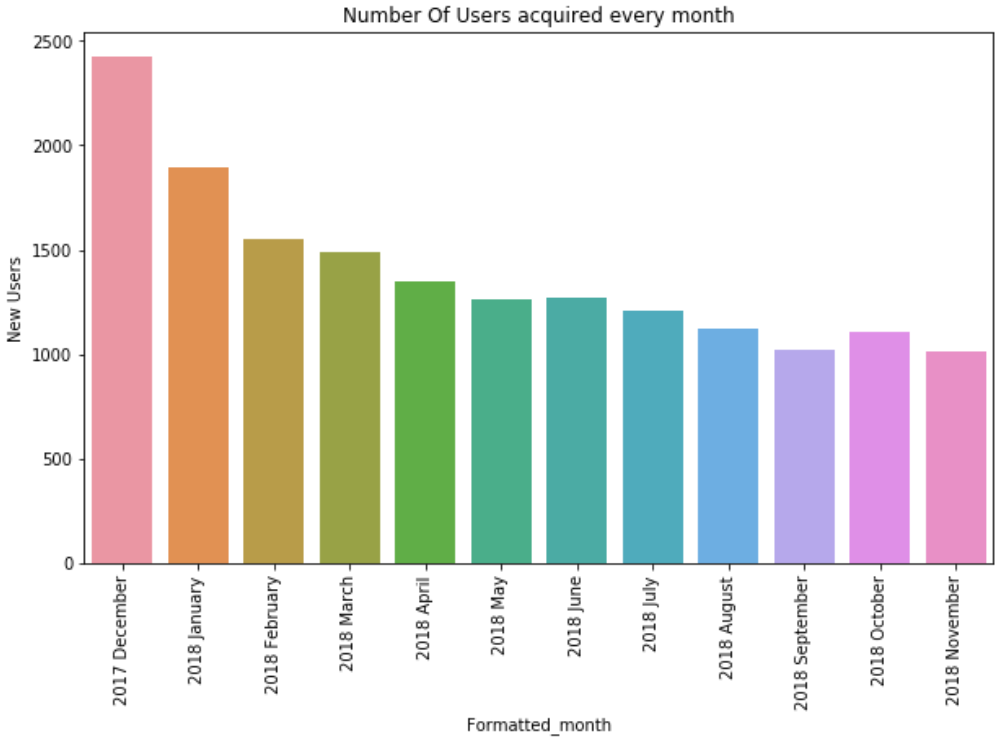
In [6]:

Out[6]:

		New Users
Year Of Booking	**Month Of Booking**	
2017	**12**	2424
2018	**1**	1892
	2	1549
	3	1490
	4	1346
	5	1264
	6	1273
	7	1208
	8	1120
	9	1020
	10	1110
	11	1015

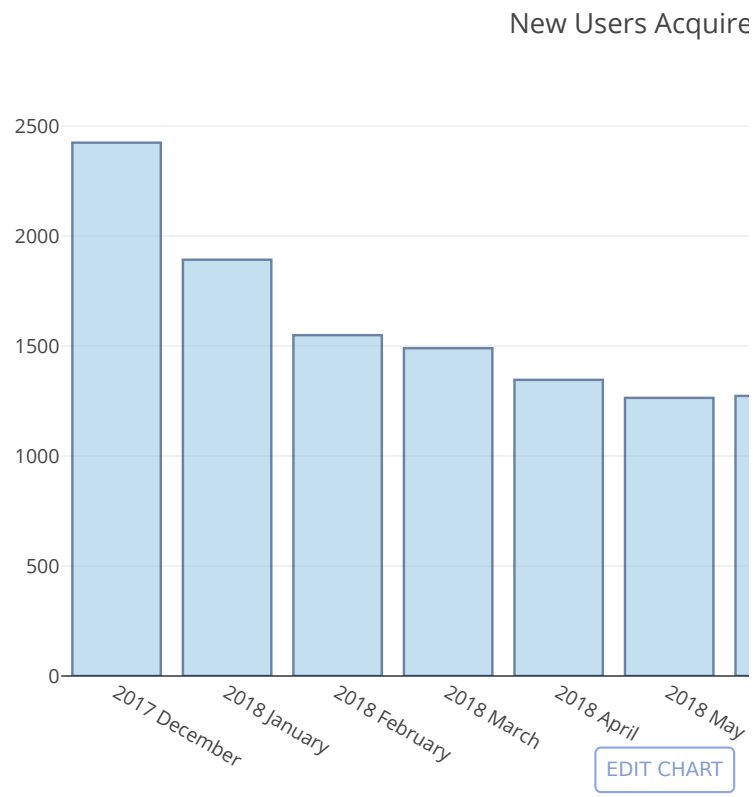
3. Plotting / Visualising the data for `num_of_new_users` (Number of new users) w.r.t. month and year

In [7]:


Number Of Users acquired every month
New Users
2500
2000
1500
1000
500
0
2017 December
2018 January
2018 February
2018 March
2018 April
2018 May
2018 June
2018 July
2018 August
2018 September
2018 October
2018 November
Formatted_month

In [8]:

Out[8]:


New Users Acquire
2500
2000
1500
1000
500
0
2017 December
2018 January
2018 February
2018 March
2018 April
2018 May
EDIT CHART

Insights

- Number of new users in January 2018 dropped the most ie 28.118 %
- Number of New Users in May had dropped almost about to 52.14% of sales in Deceember 2017
  However, the total users engaging on the service remained roughly the same as seen in the above graph

Solution 2 : What is the 30-day repeat rate of users acquired in December 2017?

Solution :

```
30 Day Repeat Rate (for less than 30 days)  : 16.625412541254125
30 Day Repeat Rate (for less than equal to 30 days) : 16.831683168316832
```

Solution 3 : What is the 90-day repeat rate of users acquired in Jan, Feb, March 2018?

Solution

```
30 Day Repeat Rate (for less than 90 days)  : 20.54350030419793
30 Day Repeat Rate (for less than equal to 90 days) : 20.74629892516731
```

Solution 4 : Predict the 90-day repeat of users acquired in November 2018 using Logistic Regression

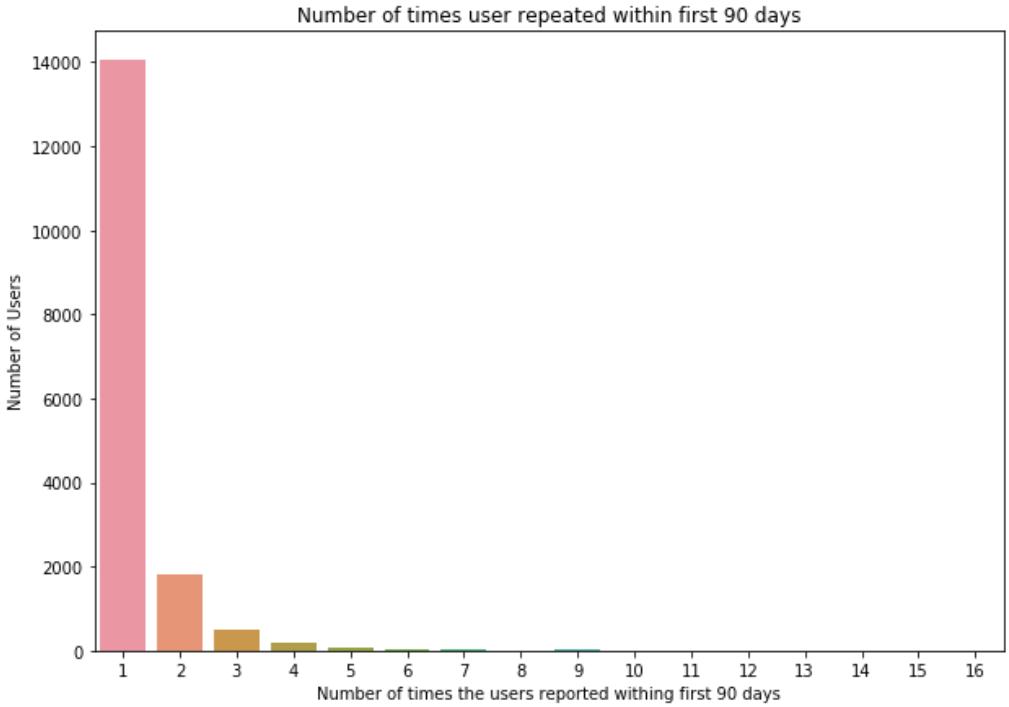
Solution

```
Predicted 90 day rate :25.254237288135593
```

Solution 5 : Plot the distribution of users by frequency of their 90-day repeat

2. Plotting Using Seaborn

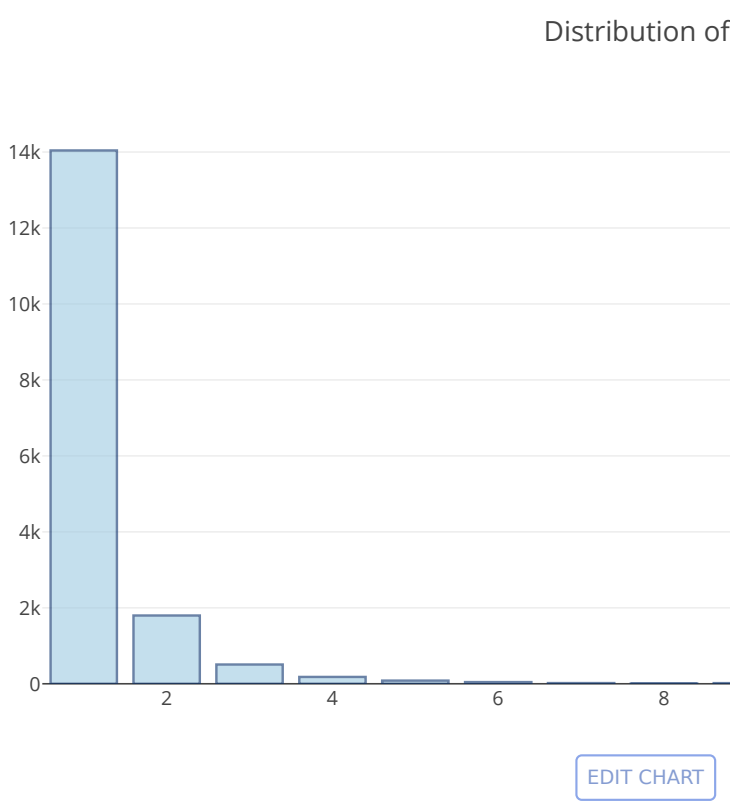
In [128]:



3. Plotting Using Plotly for more interactivity

In [131]:

Out[131]:



Closing Note

I would like to express my appreciation for considering me to be a part of the internship technical round.

I hope you like this small sampling of my work.
I **SINCERELY** want to work with a company as good as UrbanClap
I look forward to create many such documents and more with your team

Please get in touch just in case if you think I missed anyhting at the below contact details

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