This analysis was done using raw data from play store apps installations and other information related to the data. With this analysis, we can track the performance of apps and more importantly check if there is any effect in the customer's response(from their ratings and reviews) to that of the installations.

At the end of this analysis, we should be able to tell, how to improve other apps and get more customers installations and also how to maintain highly installed apps and keep them from floating.

#### STEPS TAKEN TO CLEAN THE DATA

After collecting the raw data, firstly, the data was checked to if there were blank spaces there using the filter and then ensuring I have clear and concise names for headers. Underscores was used in titles for better description and understanding. Empty cells were also eliminated while cleaning the data.

Microsoft excel was used in cleaning my data and also separating my sheets and filtering out information that will be needed to carry out the analysis. It also helped to organize my data my data into a readable format, making it easier to extract insights.

I used tableau mainly for my visualizations. With tableau I was able to analyze and get a better display of the information am conveying for better understanding.

Below, we have apps that have the lowest installs, low reviews also, but high ratings.

APP	INSTALLS	RATINGS	REVIEWS	TYPE	CATEGORY
DN Blog	10+	5	20	Free	SOCIAL
Trovami se ci riesci	10+	5	11	Free	GAME
AJ RETAILS	10+	5	9	Free	SHOPPING
CG Jobs	10+	5	8	Free	FAMILY
211:CK	10+	5	8	Paid	GAME
BU Study	10+	5	7	Free	FAMILY
Chronolink DX	10+	5	7	Paid	FAMILY
EC Mover	10+	5	5	Free	GAME
PrimeDelivery	10+	5	3	Free	MEDICAL
BJ Foods	10+	5	3	Free	BUSINESS
Tic Tac CK	10+	5	3	Free	FAMILY
ER Assist	10+	5	3	Free	PRODUCTIVITY
You're an Anime	10+	5	2	Free	MEDICAL
Easy Hotspot Ad Free	10+	5	2	Paid	TOOLS
AJ Gray Dark Icon Pack	10+	5	2	Paid	PERSONALIZATION
Bh Public School	10+	5	2	Free	FAMILY
Barbers.BH	10+	5	2	Free	LIFESTYLE
CZ Kompas	10+	5	2	Free	TOOLS

					_
DL Image Manager	10+	5	2	Paid	PRODUCTIVITY
ei Calc	10+	5	2	Free	TOOLS
Hum Ek Hain 2.02	10+	5	2	Free	SOCIAL
Story Time FD	10+	5	2	Free	FAMILY
Labs on Demand	10+	5	1	Free	MEDICAL
NCLEX Multi-topic Nursing Exam	10+	5	1	Free	MEDICAL
Review-Quiz & notes					
Basics of Orthopaedics	10+	5	1	Free	MEDICAL
Hey AJ! It's Bedtime!	10+	5	1	Paid	FAMILY
AJ Rafael Music Lessons	10+	5	1	Free	FAMILY
meStudying: AP English Lit	10+	5	1	Paid	FAMILY
AP Art History Flashcards	10+	5	1	Paid	FAMILY
Wowkwis aq Ka'qaquj	10+	5	1	Free	FAMILY
BM speed test	10+	5	1	Free	TOOLS
CB Fit	10+	5	1	Free	HEALTH_AND_FITNESS
CB Register	10+	5	1	Free	FAMILY
CI 174 Gray Icon Pack	10+	5	1	Paid	PERSONALIZATION
CJ the REALTOR	10+	5	1	Free	BUSINESS
USMLE Step 2 CK Flashcards	10+	5	1	Paid	FAMILY
30WPM Amateur ham radio Koch	10+	5	1	Paid	FAMILY
CW Morse code trainer		<u></u>	<u> </u>		
AC DC Power Monitor	10+	5	1	Paid	LIFESTYLE
DF Glue Board	10+	5	1	Free	PARENTING
DG OFF - 100% Free Coupons &	10+	5	1	Free	SHOPPING
Deals					
DN Employee	10+	5	1	Free	FAMILY
DT CLOTHINGS	10+	5	1	Free	SHOPPING
i am EB	10+	5	1	Free	PHOTOGRAPHY
EC SPORTS	10+	5	1	Free	SPORTS
EJ messenger	10+	5	1	Free	COMMUNICATION
FAST EO	10+	5	1	Free	EVENTS
FK CLASSIC FOR YOU	10+	5	1	Free	BUSINESS
Monster Ride Pro	10+	5	1	Free	GAME
		*			

Here we have the top 50 most installed apps.

АРР	INSTALLS	RATIN GS	REVIEW S	TYP E	CATEGORY
Instagram	1,000,000,00	4.5	665774	Fre	SOCIAL
	0+		46	е	
Instagram	1,000,000,00	4.5	665774	Fre	SOCIAL
	0+		46	е	

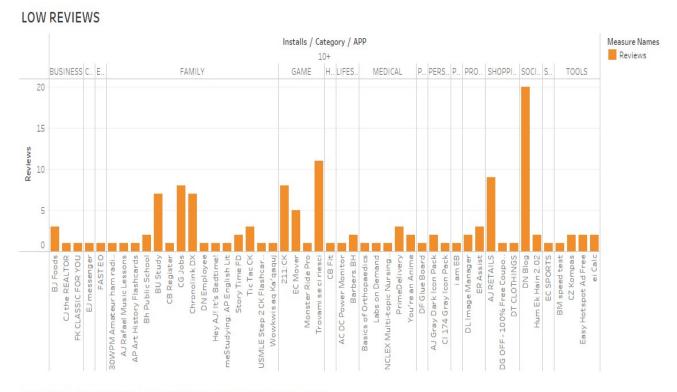
Instagram	1,000,000,00	4.5	665773	Fre	SOCIAL
Ŭ	0+		13	е	
Subway Surfers	1,000,000,00	4.5	277253	Fre	GAME
	0+		52	e	
Subway Surfers	1,000,000,00	4.5	277253	Fre	GAME
	0+		52	е	
Subway Surfers	1,000,000,00	4.5	277240	Fre	GAME
	0+		94	е	
Subway Surfers	1,000,000,00	4.5	277231	Fre	GAME
	0+		93	е	
Subway Surfers	1,000,000,00	4.5	277222	Fre	GAME
	0+		64	е	
Google Photos	1,000,000,00	4.5	108590	Fre	PHOTOGRAPHY
	0+		51	е	
Google Photos	1,000,000,00	4.5	108590	Fre	PHOTOGRAPHY
	0+		51	е	
Google Photos	1,000,000,00	4.5	108585	Fre	PHOTOGRAPHY
	0+		56	е	
Google Photos	1,000,000,00	4.5	108585	Fre	PHOTOGRAPHY
	0+		38	е	
WhatsApp Messenger	1,000,000,00	4.4	691193	Fre	COMMUNICATION
	0+		16	е	
WhatsApp Messenger	1,000,000,00	4.4	691193	Fre	COMMUNICATION
	0+		16	е	
Google	1,000,000,00	4.4	803349	Fre	TOOLS
	0+		3	е	
Google	1,000,000,00	4.4	803349	Fre	TOOLS
	0+		3	е	
Google Drive	1,000,000,00	4.4	273121	Fre	PRODUCTIVITY
	0+		1	е	
Google Drive	1,000,000,00	4.4	273121	Fre	PRODUCTIVITY
	0+		1	е	
Google Drive	1,000,000,00	4.4	273117	Fre	PRODUCTIVITY
	0+		1	е	
YouTube	1,000,000,00	4.3	256553	Fre	VIDEO_PLAYERS
	0+		05	е	
YouTube	1,000,000,00	4.3	256553	Fre	VIDEO_PLAYERS
	0+		05	е	
Google Chrome: Fast &	1,000,000,00	4.3	964304	Fre	COMMUNICATION
Secure	0+		1	е	
Google Chrome: Fast &	1,000,000,00	4.3	964304	Fre	COMMUNICATION
Secure	0+		1	е	
Google Chrome: Fast &	1,000,000,00	4.3	964299	Fre	COMMUNICATION

Secure	0+		5	е	
Maps - Navigate & Explore	1,000,000,00	4.3	923537	Fre	TRAVEL_AND_LOCAL
	0+		3	е	
Maps - Navigate & Explore	1,000,000,00	4.3	923537	Fre	TRAVEL_AND_LOCAL
	0+		3	е	
Maps - Navigate & Explore	1,000,000,00	4.3	923515	Fre	TRAVEL_AND_LOCAL
	0+		5	е	
Google Play Games	1,000,000,00	4.3	716873	Fre	FAMILY
	0+		5	е	
Google Play Games	1,000,000,00	4.3	716873	Fre	FAMILY
	0+		5	е	
Gmail	1,000,000,00	4.3	460448	Fre	COMMUNICATION
	0+		3	е	
Gmail	1,000,000,00	4.3	460448	Fre	COMMUNICATION
	0+		3	e	
Google+	1,000,000,00	4.2	483112	Fre	SOCIAL
	0+		5	e	
Google+	1,000,000,00	4.2	483112	Fre	SOCIAL
0 10 11	0+	4.0	5	e	TD41/51 41/D 10041
Google Street View	1,000,000,00	4.2	212970	Fre	TRAVEL_AND_LOCAL
0 10 11	0+		7	e	TD 41/5/ 41/5 4 004/
Google Street View	1,000,000,00	4.2	212970	Fre	TRAVEL_AND_LOCAL
Facebook.	0+	4.1	7	е	COCIAI
Facebook	1,000,000,00	4.1	781583	Fre	SOCIAL
Faceback		4.1	06	е -	COCIAI
Facebook	1,000,000,00	4.1	781583 06	Fre	SOCIAL
Skype - free IM & video calls	1,000,000,00	4.1	104841	e Fre	COMMUNICATION
Skype - Tree fivi & video calls	0+	4.1	69	e	COMMUNICATION
Messenger – Text and	1,000,000,00	4	566465	Fre	COMMUNICATION
Video Chat for Free	0+	•	78	e	COMMONICATION
Messenger – Text and	1,000,000,00	4	566465	Fre	COMMUNICATION
Video Chat for Free	0+	-	78	e	COMMONICATION
Hangouts	1,000,000,00	4	341951	Fre	COMMUNICATION
. iailgouts	0+	'	3	e	
Hangouts	1,000,000,00	4	341951	Fre	COMMUNICATION
. 6	0+		3	e	
Hangouts	1,000,000,00	4	341946	Fre	COMMUNICATION
3	0+		4	е	
Hangouts	1,000,000,00	4	341943	Fre	COMMUNICATION
J	0+		3	е	
Google Play Books	1,000,000,00	3.9	143323	Fre	BOOKS_AND_REFERE
	0+		3	е	NCE
	•		_		110-

Google News	1,000,000,00	3.9	878065	Fre	NEWS_AND_MAGAZI
	0+			е	NES
Google News	1,000,000,00	3.9	878065	Fre	NEWS_AND_MAGAZI
	0+			е	NES
Google News	1,000,000,00	3.9	877643	Fre	NEWS_AND_MAGAZI
	0+			е	NES
Google Play Movies & TV	1,000,000,00	3.7	906384	Fre	VIDEO_PLAYERS
	0+			е	
Tickets + PDA 2018 Exam	1,000,000+	4.9	197136	Fre	AUTO_AND_VEHICLE
				е	S

With tableau were were able to get a better view of what our tables have

#### **LEAST INSTALLED APPS HAVING LOW REVIEWS**



 ${\sf Reviews \, for \, each \, APP \, broken \, down \, by \, Installs \, and \, Category. \, Color \, shows \, details \, about \, Reviews.}$ 

### HIGH RATINGS

stalls	Category	APP	
10+ BUS	BUSINESS	BJ Foods	
		CJ the REALTOR	
		FK CLASSIC FOR YOU	
	COMMUNICATION	EJ messenger	
	EVENTS	FAST EO	
	FAMILY	30WPM Amateur ham rad	
		AJ Rafael Music Lessons	
		AP Art History Flashcards	
		Bh Public School	
		BU Study	
		CB Register	
		CG Jobs	
		Chronolink DX	
		DN Employee	
		Hey AJ! It's Bedtime!	
		meStudying: AP English Lit	
		Story Time FD	
		Tic Tac CK	
		USMLE Step 2 CK Flashcar.	
		Wowkwis aq Ka'qaquj	
	GAME	211:CK	
		EC Mover	
		Monster Ride Pro	
		Trovami se ci riesci	
	HEALTH_AND_FITNES	SS CB Fit	
	LIFESTYLE	AC DC Power Monitor	
		Barbers.BH	
	MEDICAL	Basics of Orthopaedics	
		Labs on Demand	
		NCLEX Multi-topic Nursin	
		PrimeDelivery	
		You're an Anime	
	PARENTING	DF Glue Board	
	PERSONALIZATION	AJ Gray Dark Icon Pack	
		CI 174 Gray Icon Pack	
	PHOTOGRAPHY	i am EB	
	PRODUCTIVITY	DL Image Manager	
		ER Assist	
	SHOPPING	AJRETAILS	
		DG OFF - 100% Free Coup	
		DT CLOTHINGS	
	SOCIAL	DN Blog	
		Hum Ek Hain 2.02	
	SPORTS	EC SPORTS	
	TOOLS	BM speed test	
		CZ Kompas	
		Easy Hotspot Ad Free	
		ei Calc	
			0 1 2 3 4

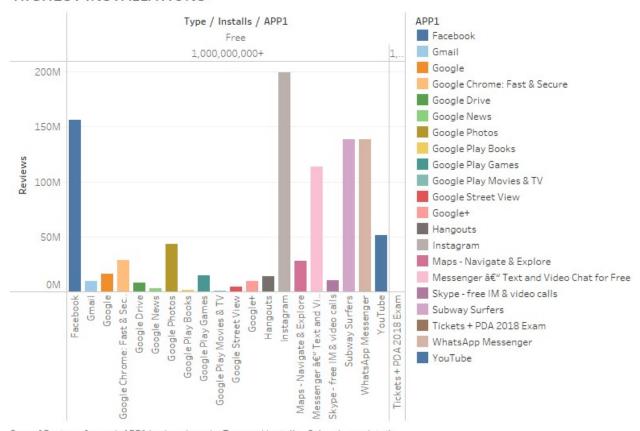
Sum of Ratings for each APP broken down by Installs and Category.

With this graph above, we are able to know that this same apps have high ratings.

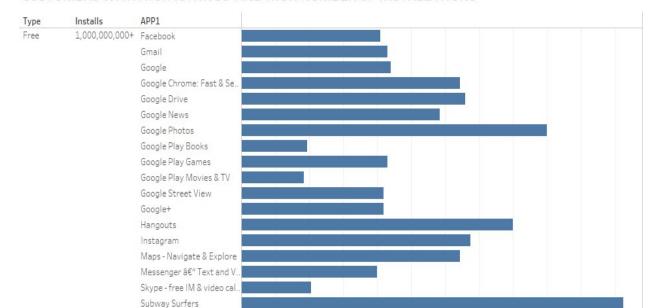
We spoke earlier that they had low reviews but they also have high ratings.

Below we have the top 50 most installed apps and their number of reviews, looking below, we would notice that they have quite a high number of reviews

#### HIGHEST INSTALLATIONS



Sum of Reviews for each APP1 broken down by Type and Installs. Color shows details about APP1.



6

10

12

Ratings

14

16

18

20

8

#### CUSTOMERS WITH HIGH RATINGS AND HIGH NUMBER OF INSTALLATIONS

Sum of Ratings for each APP1 broken down by Type and Installs. The view is filtered on Installs, which keeps 1,000,000,000+ and 1,000,000+.

2

WhatsApp Messenger

Tickets + PDA 2018 Exam

YouTube

1 000 000+

Above, we have the ratings for the top 50 most installed app too, and they also have high ratings coupled with their high reviews.

Do customer's response (reviews and ratings) have an effect on the increase in installations?

With this analysis, it was noticed that least most installed app had high ratings but never had inflow of customers installing their apps like the top 50 most installed app.

This means their customer's response (ratings) did not have an effect on their installations, but why?

Why do these apps have low number of installations but high ratings?

This could be as a result of their reviews, though they had low number of reviews. But were these reviews (if negative) worked on. Was there any response from the customer service provider to improve on what the customers want?

This means the customer service providers did not pay attention to customer's needs.

They must have thought all they needed were good ratings and had no room for improvement and upgrade. That means they didn't do their work well, by responding to customer's need.

The app developers also did not see a reason for an improvement or an upgrade, they didn't get information from the customer's service providers on what their customers want and didn't work on it. The fault was from the customer's service providers and app developers.

If an app has a good rating, that means customers are satisfied with their first experience. But the customers always want more, probably an improvement or an upgrade. This information is always conveyed through the reviews from customers, If these are not attended to, they won't see a reason to put in their reviews anymore, since they will feel the reviews are not being acted upon.

And also, the app developers should pay more attention to their customers and what they really want. They shouldn't make an app and stop there, thinking the work is finished, there is always room for improvement and upgrade. Upgrading to higher versions, increase capacity of the apps, making the apps easily accessible. With this, we are sure to increase the number of installations made from that apps, because if a customer makes good review, this prompt other customers to want to try, but if there are just numerous number of bad reviews unattended to, it works against these apps.

# TRACKING THE NUMBER OF INSTALLATIONS PER APP IN RELATION TO CUSTOMER'S RESPONSE

# TRACKING THE NUMBER OF INSTALLATIONS PER APP IN RELATION TO CUSTOMER'S RESPONSE