

ASANA REBEL TASK SOLUTION

-Ishansh Gupta

Business Data Analyst

Agenda

Today's discussion Topics are as follows-

Approach

0

**Data Cleaning,
sanity and
Wrangling**

1

Insights

2

**KPI's And
Suggestions**

3

Thanking you

4



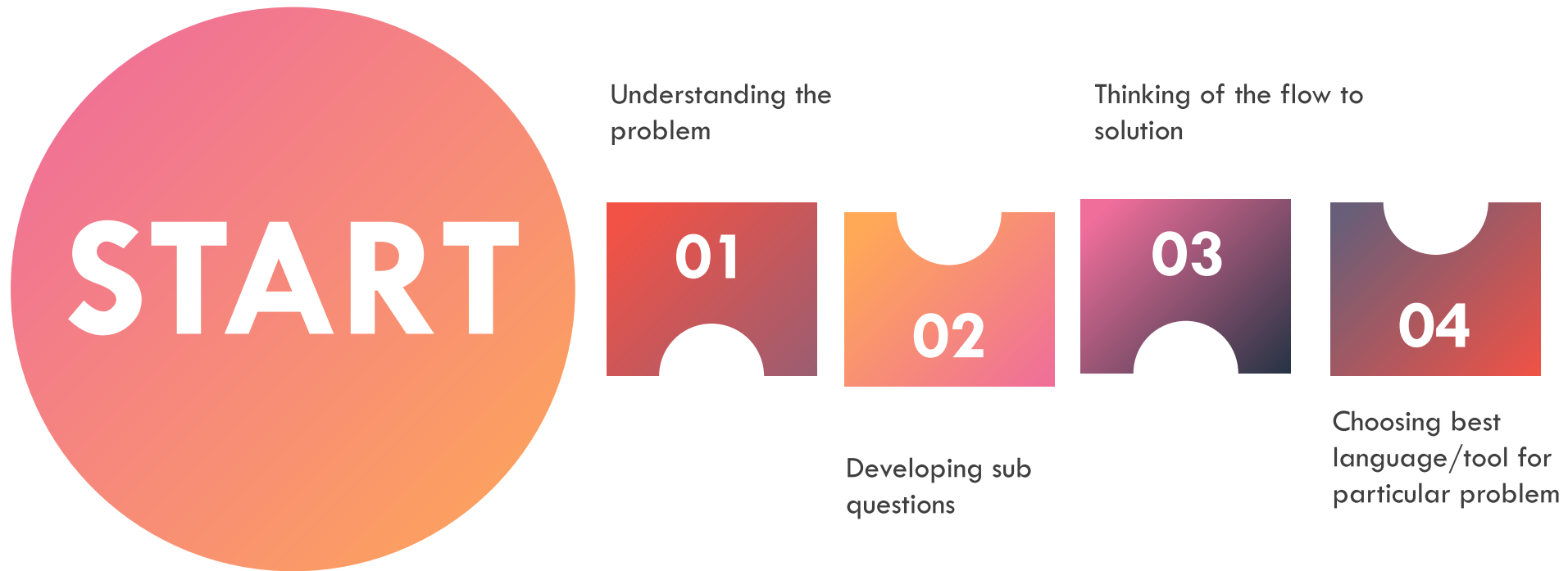
asana rebel



APPROACH

WorkFlow

Here is the brief overview of how I approached the problem for analysis in the 2 hours



WorkFlow

Wrangling and data
cleaning in Tableau
Prep Builder

05

Working on the
merged data

07

06

Connecting data to
tableau for EDA

08

Finding insights

END



DATA SANITY

IN IMPROVING PERFORMANCE

fbt_conversions — Clean 1 — Aggregate 1 — Output 3

fbt_installs — Aggregate 2 — Clean 2 — Output

fbt_facebook_... — Aggregate 3 — Clean 5 — Output 4

fbt_web_sessi... — Aggregate 4 — Clean 3 — Output 4

fbt_web_user_... — Aggregate 5 — Clean 4 — Output 5

Data Cleaning and wrangling in Tableau Prep Builder

-The data is generally good but had a lot of duplicate data and some missing data.

-Even after cleaning data properly, here is something interesting I observed (may be obvious for the team though) -The same user having different subscription id at same time. An error that requires cleaning or is it fine? (have few more examples like this)

sk_user	...	purchased_at	subscription_id	revenue
84449245		03/09/2018, 02:49:05 PM	703234	34.7
84449245		03/04/2018, 04:45:11 PM	703234	34.7
84449245		03/17/2020, 06:29:38 PM	1066298	22.35
84449245		03/09/2018, 02:49:05 PM	281563	34.7
84449245		03/09/2018, 02:49:05 PM	1066298	34.7
84449245		03/17/2020, 06:29:38 PM	703234	22.35
84449245		03/04/2018, 04:45:11 PM	1066298	34.7



Insights

FB INSTALL INSIGHTS

Cam..	Network	Year of Install Timestamp				Grand ..
		2018	2019	2020	2021	
Null	Asana Rebel Website	3	8	1,207	45	1,263
	Apple Search Ads	3	13	213	18	247
	Organic	15	53	154	12	233
	Social Media	1	7	136	14	158
	Facebook & Instagram				64	64
	Braze			19	2	21
	Outbrain	2	7			9
	Google Ads - UAC	3	1			4
	Taboola		3			3
	Google Ads - Web			2		2
	Snapchat		1			1
	Instagram Organic	1				1
	In App			1		1
437803	Facebook & Instagram			1,538	3	1,541
379581	Facebook & Instagram			8,327		8,327
339703	Facebook & Instagram			240,784	293	241,077
280020	Facebook & Instagram			15,873	1,547	17,420
279755	Facebook & Instagram			189,534	6,537	196,071
Grand Total		27	93	457,771	8,532	466,420

-1300 odd users have no campaign id assigned

- 466420 distinct users

- Campaign 339703, 279755 clearly outperforming others

Success Ranking of Campaigns according to this criteria-

- 1- 339703
- 2- 279755
- 3- 280020
- 4- 379581
- 5- 437803

Campaig..	Campaign Name	Impressions	Year of Spend Date Spend	ImpressionIn1euro
		2020	2020	2020
279755	ios_campaign_world	39,687,849	155,666	8,193
280020	web_campaign_world	13,079,016	70,992	5,325
339703	android_campaign_world	20,744,707	48,217	14,524
379581	ios_campaign_north_america	4,631,901	63,239	2,290
437803	web_campaign_world_promo	2,942,378	32,365	438

-Insights about impressions and spending per campaign

- In addition a KPI
ImpressionIn1Euro to find how many impressions we got in a Euro which shows campaign 339703 was very successful whereas campaign 437803 was the worst performing

Success Ranking of
Campaigns according
to this NEW KPI
(ImpressionIn1Euro)-

1- 339703
2- 279755
3- 280020
4- 379581
5- 437803



Validates the
success of
campaign on basis
of slide 10



Campaign Id

279755

280020

339703

379581

437803

	Year of Purchased At	
Avg. Revenue	2016	29
	2017	38
	2018	42
	2019	45
	2020	34
	2021	31
Distinct count of Sk User	2016	21
	2017	116
	2018	189
	2019	139
	2020	7,409
	2021	693
Avg. Revenue	Total	34
Distinct count of Sk ..	Total	8,362

- Average revenue by 1 customer year wise.

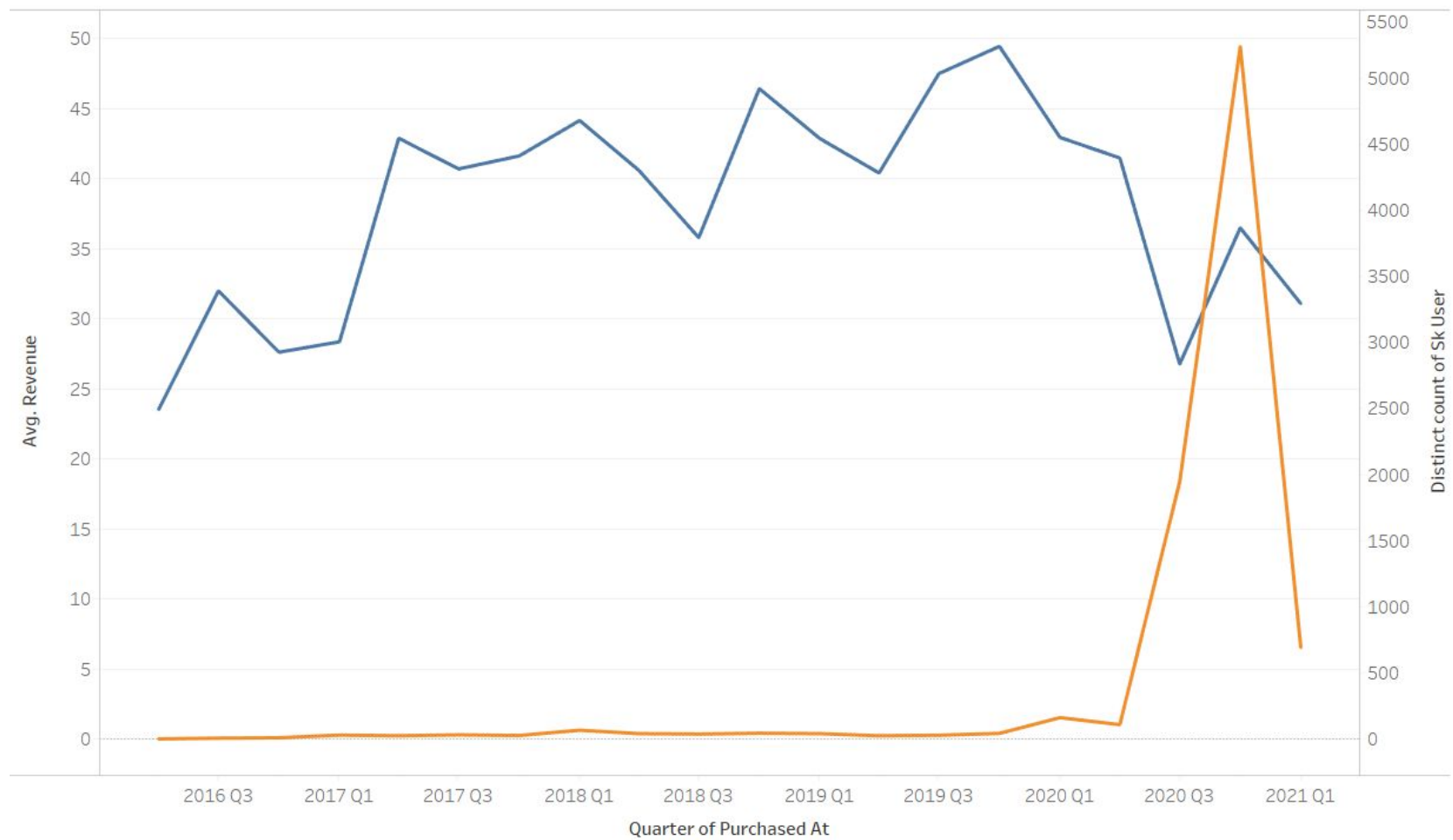
- Distinct users per year

- Total avg. revenue per customer and total distinct customers

	2016				2017				2018				2019				2020				2021
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
Avg. Revenue	24	32	28	28	43	41	42	44	41	36	46	43	40	47	49	43	41	27	36	31	
Distinct count of Sk ..	2	8	11	31	26	33	28	68	42	39	45	42	26	30	44	163	110	1,947	5,237	693	



-Quarterly performance





KPI's And Suggestions

SUGGESTIONS

1

**ADDITIONAL
KPI'S
ON EXISTING
DATA**



2

**NEW DATA
COLLECTION**



3

**COLLABORATION
B/W WEB
DEVELOPER AND
ANALYSTS**



SUGGESTIONS

The following can be implemented

Churn rate to determine how many users stay or leave.

Capture of user session duration by introduction of end time in web user table to find patterns

Retention rate of users.

SUGGESTIONS ON WHAT MORE CAN BE DONE

At what time usually people download or click add to personalize and make most of advertisement spending.

Revenue



Expenses



Profit

Finding Elite users who bring most revenue and download app often to give them special benefits.

SUGGESTIONS

The following can be implemented

Collaboration with Web
developer

Refining database
architecture

Introduction of flags

DEALING WITH WEB CAMPAIGN ATTRIBUTION DIFFICULTIES

According to the current database architecture, through application layer a flag can be introduced to capture the users who are being redirected to the website after clicking the advertisement (using the state 1 or 0) which can be used for segregation of both for further analysis and to deal with the web campaign attribution difficulties



THANKS

Questions?

In case of more clarity kindly feel free to contact me anytime.

Ishansh Gupta
i.gupta@jacobs-university.de
+491774106158
[LinkedIn](#)