Operation Analytics and Investigating Metric Spike

Project description

▶ In this project , we will perform operation analysis on the provided table record.

▶ Operation Analytics is the analysis done for the complete end to end operations of a company.

▶ With the help of this, the company then finds the areas on which it must improve upon.

▶ This kind of analysis is further used to predict the overall growth or decline of a company.

▶ **Investigating metric spike** is also an important part of operation analytics.

▶ With the help of this analysis, data analyst is able to understand and answer to various question related to progress of company.

Operation analytics

▶ Operational analytics is a category of business analytics that enables **continuous monitoring of data** and discovery of insights to help teams make better decisions on the fly.

▶ In simple words, it processes real-time signals from various parts of a business to offer instant feedback. It lets you sync information directly from your data warehouse into front-end tools—Salesforce, Marketo, HubSpot, etc.— that your team uses every day.

▶ This allows teams to accurately track data across various platforms and tools, streamline everyday business operations, improve efficiency, and enhance cross-functional team collaboration.

Approach

- Get the information from given description about data and understood the problem.

- Go through the row data and understand the variable and attribute as given.

- Used MySQL Workbench I import files in new database Ops spike and I started writing my queries as question asked to achieve the result.

- Executed the Queries and if there are any errors in the code, I modified the code and fixed the code without any errors.

- Once done all queries I cross checked all the quires and save in the file.

- Finally, I attached my code to the file.

Tech - Used

Insights and results

Calculate the number of jobs reviewed per hour per day for November 2020?

	num_jobs_reviewed
▶	0.0111

Calculate the percentage share of each language in the last 30 days?

	language	num_jobs	percnt_share	total_job
▶	English	1	12.5000	8
	Arabic	1	12.5000	8
	Persian	3	37.5000	8
	Hindi	1	12.5000	8
	French	1	12.5000	8
	Italian	1	12.5000	8

Calculate 7 day rolling average of throughput? For throughput, do you prefer daily metric or 7-day rolling and why?

	ds	review_job	avg_rolling
▶	2020-11-25	1	1.0000
	2020-11-26	1	1.0000
	2020-11-27	1	1.0000
	2020-11-28	2	1.2500
	2020-11-29	1	1.2000
	2020-11-30	2	1.3333

Duplicates Entries from the table

ds	job_id	actor_id	event	language	time_spent	org	row_num
2020-11-28	23	1005	transfer	Persian	22	D	2
2020-11-26	23	1004	skip	Persian	56	A	3

Case Study 2 (Investigating metric spike)

Calculate the weekly user engagement?

week_num	num_users
NULL	6142

Calculate the email engagement metrics?

year	week_num	num_active_user	cum_active_users
NULL	NULL	9381	9381

Calculate the weekly engagement per device?

	COUNT(user_id)	week_1
▶	0	NULL

Calculate the weekly retention of users-sign up cohort?

year	week	device	count(distinct user_id)
NULL	NULL	acer aspire desktop	198
NULL	NULL	acer aspire notebook	338
NULL	NULL	amazon fire phone	89
NULL	NULL	asus chromebook	355
NULL	NULL	dell inspiron desktop	360
NULL	NULL	dell inspiron notebook	677
NULL	NULL	hp pavilion desktop	339
NULL	NULL	htc one	196
NULL	NULL	ipad air	478
NULL	NULL	ipad mini	292
NULL	NULL	iphone 4s	409
NULL	NULL	iphone 5	1025
NULL	NULL	iphone 5s	626
NULL	NULL	kindle fire	205
NULL	NULL	lenovo thinkpad	1309
NULL	NULL	mac mini	150
NULL	NULL	macbook air	950
NULL	NULL	macbook pro	1952
NULL	NULL	nexus 10	273
NULL	NULL	nexus 5	621
NULL	NULL	nexus 7	355
NULL	NULL	nokia lumia 635	211
NULL	NULL	samsumg galaxy tablet	107
NULL	NULL	samsung galaxy note	119
NULL	NULL	samsung galaxy s4	803
NULL	NULL	windows surface	182
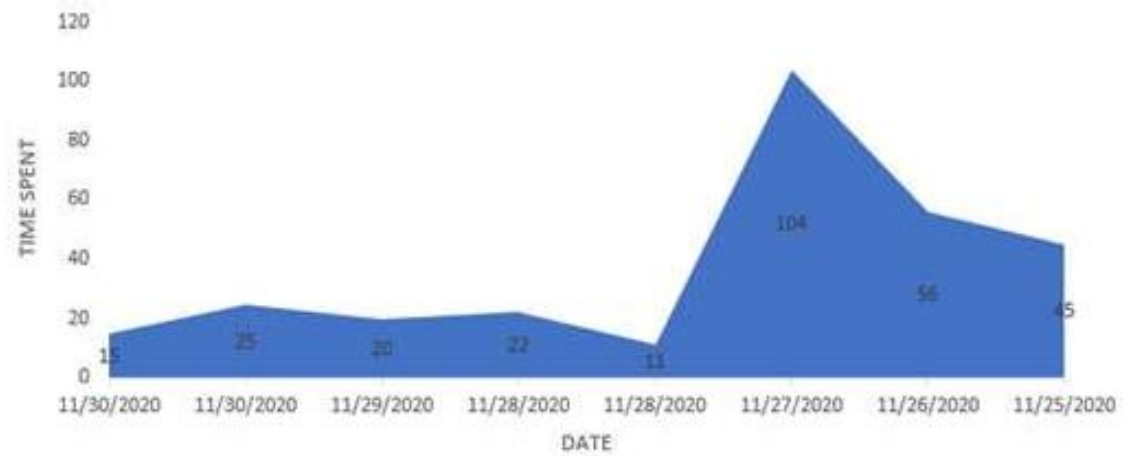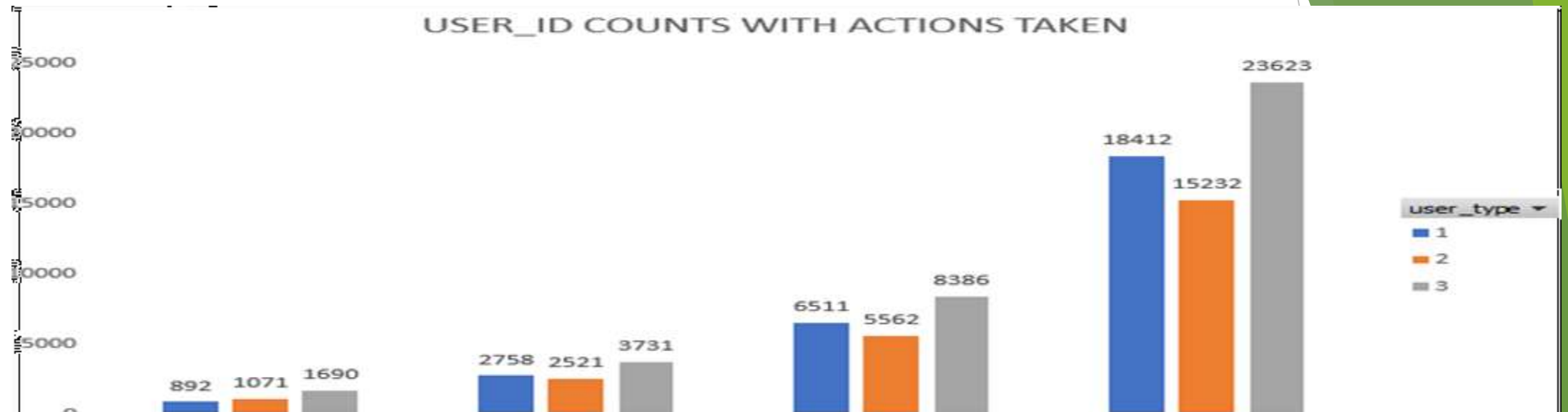
Thank you

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