# PROJECT 3

## Operation Analytics and Investigating Metric Spike

**PROJECT DESCRIPTION**

Operational Analytics is a crucial process that involves analyzing a company's end-to-end operations. This analysis helps identify areas for improvement within the company. As a Data Analyst, you'll work closely with various teams, such as operations, support, and marketing, helping them derive valuable insights from the data they collect.

One of the key aspects of Operational Analytics is investigating metric spikes. This involves understanding and explaining sudden changes in key metrics, such as a dip in daily user engagement or a drop in sales. As a Data Analyst, you'll need to answer these questions daily, making it crucial to understand how to investigate these metric spikes.

In this project, you'll take on the role of a Lead Data Analyst at a company like Microsoft. You'll be provided with various datasets and tables, and your task will be to derive insights from this data to answer questions posed by different departments within the company. Your goal is to use your advanced SQL skills to analyze the data and provide valuable insights that can help improve the company's operations and understand sudden changes in key metrics.

CREATE DATABASE if not exists PROJECT3;

USE PROJECT3;

# CASE STUDY 1 – JOB DATA ANALYSIS

CREATE TABLE job_data

(ds DATE, job_id INT, actor_id INT, event VARCHAR(15), language VARCHAR(15),

time_spent INT, org CHAR(1));


INSERT INTO job_data (ds, job_id, actor_id, event, language,

time_spent, org)

VALUES ('2020-11-30','21','1001','skip','English','15','A'),

('2020-11-30','22','1006','transfer','Arabic','25','B'),

('2020-11-29','23','1003','decision','Persian','20','C'),

('2020-11-28','23','1005','transfer','Persian','22','D'),

('2020-11-28','25','1002','decision','Hindi','11','B'),

('2020-11-27','11','1007','decision','French','104','D'),

('2020-11-26','23','1004','skip','Persian','56','A'),

('2020-11-25','20','1003','transfer','Italian','45','C');


select * from job_data;

-- TASK 1 : Jobs Reviewed Over Time

-- Average job reviewed over time is calculated by total number of jobs divided by total time spent in a day. then its average is taken.

select avg(t) as 'average jobs reviewed per day per hour',

avg(p) as 'average jobs reviewed per day per second'

from

 (select ds,

 (count(job_id)*3600/sum(time_spent)) as t,

(count(job_id)/sum(time_spent)) as p from job_data

where month(ds)=11 group by ds) a;

| average jobs reviewed per day per hour | average jobs reviewed per day per second |
|---|---|
| 126.18048333 | 0.03505000 |

-- TASK 2 (THROUGHPUT ANALYSIS)

-- it is calculated by total no. of events occured in a day divided by total time spent for all events in a day. Then its average is taken.

SELECT ds AS Dates, ROUND(COUNT(event)/sum(time_spent),2) as 'Daily thoughput'

FROM job_data

GROUP BY ds ORDER BY ds;

| Dates | Daily thoughput |
|---|---|
| 2020-11-25 | 0.02 |
| 2020-11-26 | 0.02 |
| 2020-11-27 | 0.01 |
| 2020-11-28 | 0.06 |
| 2020-11-29 | 0.05 |
| 2020-11-30 | 0.05 |

-- TASK 3 - LANGUAGE SHARE ANALYSIS

-- Language share is calculated by taking percentage of total no. of jobs in each language out of total no. of languages.

SELECT language AS Languages, ROUND(100 * COUNT(*)/total,2) AS Percentage,

sub.total FROM job_data

CROSS JOIN (SELECT COUNT(*) AS total FROM job_data) AS sub

GROUP BY language, sub.total;

| Languages | Percentage | total |
|-----------|-----------|-------|
| English | 12.50 | 8 |
| Arabic | 12.50 | 8 |
| Persian | 37.50 | 8 |
| Hindi | 12.50 | 8 |
| French | 12.50 | 8 |
| Italian | 12.50 | 8 |

INSIGHT – Job carried out in Persian language is highest while all other languages are equally contributed. This is due to duplicate job_id 23 repeated twice with different actor_ids.

-- TASK 4 : ( DETECTION OF DUPLICATE ROWS)

-- the duplicates are identified based on the repetition of job_id more than once.

select * from(select *,row_number()over(partition by job_id) as rownum from job_data)a where rownum>1;

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

The job_id 23 is repeated with same language as Persian.

# CASE STUDY - 2

-- TABLE 1 - USERS

CREATE TABLE IF NOT EXISTS USERS

(

user_id int, created_at varchar(100),

company_id int, language varchar(15),

activated_at varchar(100), state varchar(20)

);

SHOW variables LIKE 'secure_file_priv';


LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TABLE-1 users.csv"

INTO TABLE users

FIELDS TERMINATED BY ','

```
ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;




-- CHANGING THE DATA TYPE OF CREATED_AT COLUMN FROM STRING TO DATETIME

ALTER TABLE users add column temp_created_at datetime;

update users set temp_created_at =

str_to_date(created_at, '%dd-%mm-%YYYY %H:%i');

SET SQL_SAFE_UPDATES = 0;

ALTER TABLE users DROP COLUMN created_at;

alter table users CHANGE COLUMN temp_created_at created_at datetime;


-- CHANGING THE DATA TYPE OF ACTIVATED_AT COLUMN FROM STRING TO DATETIME

ALTER TABLE users add column temp_activated_at datetime;

update users set temp_activated_at =

str_to_date(activated_at, '%d-%m-%Y %H:%i');

SET SQL_SAFE_UPDATES = 0;

ALTER TABLE users DROP COLUMN temp_activated_at;

alter table users CHANGE COLUMN temp_activated_at activated_at datetime;



DESC USERS;

SELECT * FROM USERS;

-- TABLE 2 EVENTS

CREATE TABLE events(

user_id INT,

occured_at VARCHAR(100),

event_type VARCHAR(50),

event_name VARCHAR(100),
```

```sql
location VARCHAR(50),

device VARCHAR(50),

user_type INT );


LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TABLE-2 events.csv"

INTO TABLE events

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;


desc events;
-- CHANGING THE DATA TYPE OF OCCURED_AT COLUMN FROM STRING TO DATETIME

ALTER TABLE events add column temp_occured_at datetime;

update events set temp_occured_at =

str_to_date(occured_at, '%d-%m-%Y %H:%i');

SET SQL_SAFE_UPDATES = 0;

ALTER TABLE events DROP COLUMN occured_at;

alter table events CHANGE COLUMN temp_occured_at occured_at datetime;


select * from events;


-- TABLE 3 EMAIL_EVENTS


CREATE TABLE email_events(

user_id INT,

occured_at VARCHAR(100),

actions VARCHAR(50),

user_type INT );


LOAD DATA INFILE "C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TABLE-3 email_events.csv"
```

```
INTO TABLE email_events

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;


desc email_events;

-- CHANGING THE DATA TYPE OF OCCURED_AT COLUMN FROM STRING TO DATETIME

ALTER TABLE email_events add column temp_occured_at datetime;

update email_events set temp_occured_at = str_to_date(occured_at, '%d-%m-%Y %H:%i');

SET SQL_SAFE_UPDATES = 0;

ALTER TABLE email_events DROP COLUMN occured_at;

alter table email_events CHANGE COLUMN temp_occured_at occured_at datetime;


-- QUERY - 1 : CALCULATE THE WEEKLY USER ENGAGEMENT:

SELECT extract(week from occured_at) as week_num,

count(DISTINCT user_id)

from events

group by week_num;


desc users;

select * from users;

use project3;
```

| week_num | count(DISTINCT user_id) |
|----------|--------------------------|
| 17 | 663 |
| 18 | 1068 |
| 19 | 1113 |
| 20 | 1154 |
| 21 | 1121 |
| 22 | 1186 |
| 23 | 1232 |
| 24 | 1275 |
| 25 | 1264 |

| | |
|---|---|
| 26 | 1302 |
| 27 | 1372 |
| 28 | 1365 |
| 29 | 1376 |
| 30 | 1467 |
| 31 | 1299 |
| 32 | 1225 |
| 33 | 1225 |
| 34 | 1204 |
| 35 | 104 |

INSIGHT – WEEK 30 hits the maximum number of users engaged while the last week 35 has lowest no. of users engaged.

-- QUERY 2 - USER GROWTH FOR PRODUCT

with user_data as

(select COUNT(DISTINCT user_id) as usercount, month(activated_at) as month_num, year(activated_at) as year_num from users

group by month_num, year_num

order by year_num, month_num)

select *, lead(usercount,1) over(order by year_num, month_num) - usercount as user_growth from user_data;


with user_data as

(select COUNT(DISTINCT user_id) as usercount, month(activated_at) as month_num, year(activated_at) as year_num from users

group by year_num, month_num)

select *, usercount - lead(usercount,1) over(order by year_num desc, month_num desc) as monthly_user_growth from user_data;


with user_data as

(select COUNT(DISTINCT user_id) as usercount, year(activated_at) as year_num from users

group by year_num)

select *, usercount - lead(usercount,1) over(order by year_num desc) as yearly_user_growth from user_data;

| usercount | month_num | year_num | monthly_user_growth |
|---|---|---|---|
| 1031 | 8 | 2014 | 34 |
| 997 | 7 | 2014 | 124 |
| 873 | 6 | 2014 | 94 |

| 779 | 5 | 2014 | 53 |
|-----|---|------|----|
| 726 | 4 | 2014 | 111 |
| 615 | 3 | 2014 | 90 |
| 525 | 2 | 2014 | -27 |
| 552 | 1 | 2014 | 66 |
| 486 | 12 | 2013 | 87 |
| 399 | 11 | 2013 | 9 |
| 390 | 10 | 2013 | 60 |
| 330 | 9 | 2013 | 14 |
| 316 | 8 | 2013 | 32 |
| 284 | 7 | 2013 | 71 |
| 213 | 6 | 2013 | -1 |
| 214 | 5 | 2013 | 33 |
| 181 | 4 | 2013 | 31 |
| 150 | 3 | 2013 | -10 |
| 160 | 2 | 2013 | 0 |
| 160 | 1 | 2013 | NULL |

| usercount | year_num | yearly_user_growth |
|-----------|----------|--------------------|
| 6098 | 2014 | 2815 |
| 3283 | 2013 | NULL |

INSIGHT : the user growth is almost double from year 2013 to 2014.

# QUERY 3 : WEEKLY RETENTION ANALYSIS

-- TO Analyze the retention of users on a weekly basis after signing up for a product.

SELECT DISTINCT user_id, COUNT(user_id), SUM(CASE WHEN retention_week = 1 then 1 else 0 END) as per_week_retention

FROM

(SELECT a.user_id, a.signup_week, b.engagement_week, b.engagement_week - a.signup_week as retention_week

FROM

(SELECT DISTINCT user_id, EXTRACT(WEEK FROM occured_at) as signup_week

FROM events

WHERE event_type = 'signup_flow'

AND event_name = 'complete_signup'

AND extract(week from occured_at) =18

)a

LEFT JOIN

(SELECT DISTINCT user_id, EXTRACT(WEEK FROM occured_at) as engagement_week

FROM events

WHERE event_type = 'engagement')b

on a.user_id = b.user_id

)d

group by user_id

order by user_id;

| user_id | COUNT(user_id) | per_week_retention |
|---------|----------------|--------------------|
| 11768 | 1 | 0 |
| 11770 | 1 | 0 |
| 11775 | 2 | 1 |
| 11778 | 3 | 0 |
| 11779 | 5 | 1 |
| 11780 | 2 | 1 |
| 11785 | 1 | 0 |
| 11787 | 3 | 1 |
| 11791 | 2 | 1 |
| 11793 | 6 | 1 |
| 11795 | 2 | 1 |
| 11798 | 6 | 1 |
| 11799 | 10 | 1 |
| 11801 | 2 | 1 |
| 11804 | 2 | 1 |
| 11806 | 1 | 0 |
| 11809 | 1 | 0 |
| 11811 | 2 | 1 |
| 11813 | 6 | 0 |
| 11816 | 3 | 0 |
| 11818 | 2 | 1 |
| 11820 | 4 | 1 |
| 11823 | 3 | 1 |
| 11824 | 7 | 1 |
| 11825 | 3 | 1 |
| 11826 | 2 | 1 |
| 11828 | 3 | 1 |
| 11829 | 3 | 1 |
| 11832 | 4 | 1 |
| 11833 | 14 | 1 |
| 11834 | 2 | 1 |
| 11838 | 2 | 1 |
| 11839 | 1 | 0 |
| 11840 | 2 | 1 |

| | | |
|---|---|---|
| 11841 | 6 | 1 |
| 11842 | 6 | 1 |
| 11843 | 3 | 1 |
| 11844 | 6 | 1 |
| 11849 | 3 | 1 |
| 11850 | 3 | 0 |
| 11852 | 5 | 1 |
| 11854 | 3 | 1 |
| 11858 | 6 | 1 |
| 11859 | 4 | 1 |
| 11863 | 6 | 1 |
| 11864 | 2 | 1 |
| 11865 | 3 | 1 |
| 11868 | 9 | 1 |
| 11872 | 2 | 1 |
| 11874 | 2 | 1 |
| 11875 | 2 | 1 |
| 11876 | 2 | 1 |
| 11877 | 8 | 1 |
| 11879 | 2 | 1 |
| 11881 | 6 | 1 |
| 11882 | 2 | 1 |
| 11884 | 1 | 0 |
| 11887 | 2 | 1 |
| 11888 | 5 | 0 |
| 11889 | 2 | 1 |
| 11893 | 14 | 1 |
| 11894 | 2 | 1 |
| 11895 | 3 | 1 |
| 11896 | 2 | 1 |
| 11898 | 1 | 0 |
| 11899 | 4 | 1 |
| 11900 | 6 | 1 |
| 11901 | 4 | 1 |
| 11906 | 12 | 1 |
| 11908 | 3 | 1 |
| 11909 | 7 | 1 |
| 11914 | 6 | 1 |
| 11919 | 2 | 0 |
| 11920 | 1 | 0 |
| 11924 | 1 | 0 |
| 11926 | 8 | 1 |
| 11928 | 8 | 0 |
| 11929 | 1 | 0 |
| 11931 | 6 | 1 |
| 11933 | 6 | 1 |
| 11936 | 3 | 0 |

| | | |
|---|---|---|
| 11939 | 3 | 1 |
| 11940 | 4 | 1 |
| 11942 | 7 | 1 |
| 11944 | 3 | 1 |
| 11947 | 2 | 1 |
| 11949 | 7 | 1 |
| 11953 | 3 | 1 |
| 11955 | 5 | 0 |
| 11960 | 2 | 1 |
| 11961 | 1 | 0 |
| 11962 | 3 | 1 |
| 11963 | 4 | 1 |
| 11971 | 1 | 0 |
| 11972 | 6 | 0 |
| 11973 | 1 | 0 |
| 11975 | 2 | 1 |
| 11981 | 1 | 0 |
| 11984 | 5 | 1 |
| 11986 | 6 | 1 |
| 11990 | 3 | 0 |
| 11991 | 1 | 0 |
| 11992 | 7 | 1 |
| 11994 | 1 | 0 |
| 11995 | 1 | 0 |
| 11997 | 1 | 0 |
| 11998 | 6 | 0 |
| 11999 | 3 | 1 |
| 12001 | 8 | 1 |
| 12005 | 2 | 0 |
| 12007 | 11 | 1 |
| 12010 | 2 | 0 |
| 12014 | 5 | 1 |
| 12019 | 1 | 0 |
| 12021 | 1 | 0 |
| 12022 | 1 | 0 |
| 12023 | 5 | 1 |
| 12026 | 1 | 0 |
| 12027 | 1 | 0 |
| 12028 | 1 | 0 |
| 12029 | 4 | 1 |
| 12030 | 1 | 0 |
| 12031 | 1 | 0 |
| 12033 | 6 | 1 |
| 12034 | 14 | 1 |
| 12035 | 2 | 0 |
| 12040 | 7 | 0 |
| 12042 | 3 | 1 |

| 12045 | 2 | 0 |
|---|---|---|
| 12048 | 3 | 1 |
| 12050 | 5 | 1 |
| 12053 | 3 | 1 |
| 12054 | 9 | 1 |
| 12056 | 3 | 1 |
| 12057 | 1 | 0 |
| 12058 | 5 | 1 |
| 12061 | 2 | 1 |
| 12063 | 3 | 1 |
| 12066 | 4 | 1 |
| 12072 | 5 | 1 |
| 12073 | 4 | 1 |
| 12074 | 1 | 0 |
| 12076 | 3 | 1 |
| 12077 | 2 | 1 |
| 12079 | 9 | 1 |
| 12081 | 6 | 1 |
| 12082 | 1 | 0 |
| 12084 | 3 | 1 |
| 12085 | 2 | 1 |
| 12087 | 3 | 1 |
| 12089 | 2 | 1 |
| 12093 | 2 | 1 |
| 12095 | 9 | 1 |
| 12097 | 4 | 1 |
| 12101 | 2 | 1 |
| 12102 | 3 | 1 |
| 12103 | 1 | 0 |
| 12106 | 1 | 0 |
| 12107 | 6 | 1 |
| 12111 | 2 | 1 |
| 12113 | 2 | 0 |
| 12118 | 3 | 1 |
| 12119 | 4 | 1 |
| 12120 | 1 | 0 |
| 12121 | 1 | 0 |
| 12122 | 4 | 0 |
| 12127 | 7 | 1 |
| 12133 | 2 | 1 |
| 12135 | 2 | 1 |
| 12136 | 3 | 1 |
| 12137 | 4 | 1 |
| 12138 | 4 | 1 |
| 12141 | 2 | 1 |
| 12144 | 5 | 1 |
| 12147 | 4 | 1 |

| 12148 | 4 | 1 |
|---|---|---|
| 12149 | 4 | 1 |
| 12151 | 1 | 0 |
| 12152 | 8 | 1 |
| 12153 | 5 | 1 |
| 12161 | 6 | 1 |
| 12162 | 4 | 0 |
| 12164 | 13 | 1 |
| 12165 | 3 | 1 |
| 12167 | 3 | 1 |
| 12169 | 4 | 1 |
| 12170 | 6 | 1 |
| 12171 | 1 | 0 |
| 12173 | 3 | 1 |
| 12174 | 1 | 0 |
| 12176 | 3 | 1 |
| 12178 | 6 | 1 |
| 12180 | 2 | 1 |
| 12181 | 4 | 1 |
| 12183 | 3 | 1 |
| 12184 | 2 | 1 |
| 12185 | 6 | 1 |
| 12188 | 3 | 1 |
| 12189 | 5 | 1 |
| 12191 | 3 | 1 |
| 12193 | 2 | 1 |
| 12196 | 1 | 0 |
| 12202 | 2 | 1 |
| 12205 | 13 | 1 |
| 12208 | 2 | 1 |
| 12212 | 5 | 1 |
| 12213 | 3 | 1 |
| 12214 | 3 | 1 |
| 12216 | 9 | 1 |
| 12217 | 3 | 1 |
| 12221 | 7 | 1 |
| 12225 | 2 | 1 |
| 12227 | 3 | 1 |
| 12228 | 7 | 1 |
| 12230 | 2 | 1 |
| 12233 | 1 | 0 |
| 12235 | 1 | 0 |
| 12236 | 4 | 1 |
| 12237 | 8 | 1 |
| 12238 | 2 | 1 |
| 12241 | 7 | 1 |
| 12243 | 2 | 0 |

| 12246 | 9  | 1 |
| --- | --- | --- |
| 12247 | 3  | 1 |
| 12248 | 12 | 1 |
| 12249 | 5  | 1 |
| 12250 | 6  | 1 |
| 12251 | 5  | 1 |
| 12256 | 2  | 1 |
| 12263 | 7  | 1 |
| 12265 | 4  | 1 |
| 12266 | 4  | 1 |
| 12267 | 2  | 1 |
| 12268 | 1  | 0 |
| 12270 | 2  | 1 |
| 12277 | 1  | 0 |
| 12279 | 1  | 0 |
| 12281 | 1  | 0 |
| 12282 | 1  | 0 |
| 12284 | 1  | 0 |
| 12285 | 1  | 0 |
| 12290 | 2  | 1 |
| 12291 | 2  | 1 |
| 12292 | 5  | 1 |
| 12293 | 3  | 1 |
| 12294 | 1  | 0 |
| 12296 | 1  | 0 |
| 12297 | 4  | 1 |
| 12301 | 3  | 0 |
| 12302 | 3  | 1 |
| 12303 | 1  | 0 |
| 12310 | 6  | 1 |
| 12311 | 5  | 1 |
| 12312 | 1  | 0 |
| 12313 | 3  | 1 |
| 12315 | 3  | 1 |
| 12318 | 5  | 0 |
| 12319 | 3  | 0 |
| 12323 | 10 | 1 |
| 12324 | 3  | 1 |
| 12325 | 2  | 0 |
| 12326 | 1  | 0 |
| 12327 | 1  | 0 |
| 12328 | 2  | 1 |
| 12330 | 3  | 1 |
| 12333 | 11 | 1 |
| 12334 | 1  | 0 |
| 12335 | 4  | 1 |
| 12337 | 3  | 1 |

| | | |
|---|---|---|
| 12341 | 6 | 1 |
| 12346 | 1 | 0 |
| 12348 | 7 | 1 |
| 12350 | 3 | 1 |
| 12352 | 4 | 1 |
| 12355 | 4 | 1 |
| 12356 | 4 | 0 |
| 12357 | 10 | 1 |
| 12358 | 8 | 1 |
| 12361 | 3 | 0 |
| 12363 | 3 | 1 |
| 12367 | 9 | 1 |
| 12369 | 1 | 0 |
| 12370 | 2 | 1 |
| 12372 | 7 | 1 |
| 12373 | 9 | 1 |
| 12375 | 5 | 0 |
| 12382 | 5 | 1 |
| 12383 | 2 | 1 |
| 12386 | 3 | 1 |
| 12388 | 1 | 0 |
| 12389 | 14 | 1 |
| 12391 | 4 | 1 |
| 12393 | 10 | 1 |
| 12395 | 4 | 0 |
| 12397 | 2 | 1 |
| 12400 | 5 | 1 |
| 12402 | 1 | 0 |
| 12403 | 3 | 0 |
| 12404 | 2 | 0 |
| 12406 | 4 | 1 |
| 12407 | 2 | 1 |
| 12408 | 6 | 0 |
| 12411 | 2 | 1 |
| 12417 | 2 | 1 |
| 12420 | 5 | 1 |
| 12421 | 4 | 1 |
| 12425 | 5 | 1 |
| 12429 | 3 | 1 |
| 12432 | 3 | 1 |
| 12434 | 3 | 1 |
| 12436 | 4 | 1 |
| 12438 | 3 | 1 |
| 12439 | 5 | 1 |
| 12440 | 1 | 0 |
| 12441 | 2 | 1 |
| 12443 | 2 | 1 |

| | | |
|---|---|---|
| 12445 | 3 | 1 |
| 12447 | 2 | 1 |
| 12448 | 1 | 0 |
| 12449 | 9 | 1 |
| 12451 | 3 | 1 |
| 12452 | 1 | 0 |
| 12454 | 3 | 1 |
| 12456 | 7 | 1 |
| 12460 | 2 | 1 |
| 12462 | 3 | 1 |
| 12463 | 1 | 0 |
| 12464 | 5 | 1 |
| 12468 | 3 | 1 |
| 12470 | 6 | 0 |
| 12471 | 3 | 1 |
| 12472 | 2 | 1 |
| 12473 | 3 | 1 |
| 12474 | 4 | 1 |
| 12477 | 6 | 1 |
| 12478 | 2 | 1 |
| 12480 | 6 | 1 |
| 12481 | 5 | 0 |
| 12483 | 6 | 0 |
| 12486 | 3 | 1 |
| 12487 | 3 | 1 |
| 12488 | 1 | 0 |
| 12490 | 5 | 1 |
| 12492 | 2 | 1 |
| 12493 | 11 | 1 |
| 12496 | 3 | 1 |
| 12497 | 2 | 1 |
| 12499 | 3 | 0 |
| 12501 | 9 | 1 |
| 12503 | 1 | 0 |
| 12505 | 2 | 1 |
| 12506 | 2 | 1 |
| 12509 | 2 | 1 |
| 12510 | 2 | 1 |
| 12512 | 2 | 1 |
| 12515 | 2 | 1 |
| 12516 | 1 | 0 |
| 12517 | 5 | 1 |
| 12518 | 4 | 1 |
| 12519 | 2 | 1 |
| 12521 | 2 | 1 |
| 12522 | 2 | 1 |
| 12524 | 5 | 1 |

| | | |
|---|---|---|
| 12526 | 2 | 1 |
| 12527 | 2 | 1 |
| 12529 | 3 | 1 |
| 12530 | 2 | 1 |
| 12531 | 4 | 1 |
| 12534 | 1 | 0 |
| 12537 | 2 | 1 |
| 12539 | 2 | 1 |
| 12541 | 3 | 1 |
| 12543 | 7 | 1 |
| 12544 | 1 | 0 |
| 12545 | 3 | 1 |
| 12547 | 7 | 1 |
| 12548 | 4 | 1 |
| 12550 | 4 | 1 |
| 12551 | 2 | 1 |
| 12553 | 2 | 1 |
| 12554 | 2 | 1 |
| 12558 | 3 | 1 |
| 12560 | 2 | 1 |
| 12562 | 4 | 1 |
| 12564 | 2 | 1 |
| 12565 | 10 | 1 |
| 12567 | 7 | 1 |
| 12569 | 3 | 1 |
| 12570 | 1 | 0 |
| 12571 | 3 | 1 |
| 12573 | 2 | 1 |
| 12574 | 2 | 1 |
| 12576 | 2 | 1 |
| 12577 | 2 | 1 |
| 12578 | 3 | 1 |
| 12582 | 1 | 0 |
| 12584 | 7 | 1 |
| 12585 | 7 | 1 |
| 12586 | 2 | 1 |
| 12589 | 3 | 1 |
| 12591 | 3 | 1 |
| 12593 | 10 | 1 |
| 12594 | 4 | 1 |
| 12595 | 3 | 1 |
| 12599 | 6 | 1 |
| 12600 | 2 | 1 |
| 12603 | 2 | 1 |
| 12604 | 5 | 1 |
| 12605 | 3 | 1 |
| 12607 | 10 | 1 |

| | | |
|---|---|---|
| 12608 | 3 | 1 |
| 12610 | 8 | 1 |
| 12611 | 4 | 1 |
| 12613 | 5 | 1 |
| 12615 | 2 | 1 |
| 12617 | 14 | 1 |
| 12621 | 2 | 1 |
| 12627 | 3 | 1 |
| 12628 | 6 | 1 |
| 12630 | 5 | 1 |
| 12632 | 1 | 0 |
| 12633 | 7 | 1 |
| 12636 | 1 | 0 |
| 12637 | 3 | 1 |
| 12640 | 3 | 1 |
| 12641 | 3 | 0 |
| 12648 | 3 | 1 |
| 12652 | 4 | 0 |
| 12654 | 2 | 1 |
| 12655 | 1 | 0 |
| 12656 | 2 | 1 |
| 12658 | 1 | 0 |
| 12660 | 3 | 1 |
| 12662 | 9 | 1 |
| 12663 | 2 | 1 |
| 12665 | 1 | 0 |
| 12666 | 3 | 0 |
| 12670 | 13 | 1 |
| 12672 | 3 | 1 |
| 12674 | 1 | 0 |
| 12678 | 8 | 1 |
| 12679 | 3 | 0 |
| 12683 | 4 | 1 |
| 12685 | 1 | 0 |
| 12686 | 4 | 1 |
| 12687 | 3 | 1 |
| 12689 | 4 | 1 |
| 12692 | 1 | 0 |
| 12695 | 1 | 0 |
| 12696 | 2 | 1 |
| 12697 | 1 | 0 |
| 12698 | 1 | 0 |
| 12700 | 2 | 0 |
| 12703 | 4 | 1 |
| 12705 | 1 | 0 |
| 12708 | 7 | 1 |
| 12709 | 2 | 0 |

| | | |
|---|---|---|
| 12710 | 1 | 0 |
| 12716 | 6 | 1 |
| 12718 | 1 | 0 |
| 12723 | 1 | 0 |
| 12725 | 6 | 1 |
| 12728 | 1 | 0 |
| 12732 | 1 | 0 |
| 12733 | 4 | 1 |
| 12735 | 7 | 1 |
| 12738 | 1 | 0 |
| 12741 | 4 | 1 |
| 12742 | 3 | 1 |
| 12743 | 4 | 0 |
| 12744 | 5 | 1 |
| 12745 | 2 | 1 |
| 12747 | 4 | 1 |
| 12748 | 3 | 1 |
| 12749 | 3 | 1 |
| 12751 | 4 | 1 |
| 12752 | 12 | 1 |
| 12753 | 3 | 1 |
| 12754 | 3 | 0 |
| 12757 | 5 | 0 |
| 12758 | 7 | 1 |
| 12759 | 4 | 1 |
| 12761 | 6 | 1 |
| 12764 | 9 | 1 |
| 12770 | 2 | 1 |
| 12771 | 1 | 0 |
| 12772 | 4 | 1 |
| 12773 | 2 | 1 |
| 12776 | 2 | 0 |
| 12777 | 4 | 0 |
| 12780 | 4 | 1 |
| 12783 | 1 | 0 |
| 12784 | 1 | 0 |
| 12785 | 1 | 0 |
| 12786 | 3 | 1 |
| 12788 | 3 | 1 |
| 12791 | 2 | 1 |
| 12792 | 5 | 1 |
| 12797 | 8 | 1 |
| 12798 | 4 | 1 |
| 12800 | 3 | 1 |
| 12801 | 3 | 1 |
| 12805 | 2 | 1 |
| 12809 | 2 | 1 |

| 12810 | 4 | 1 |
|---|---|---|
| 12811 | 4 | 1 |
| 12817 | 4 | 1 |
| 12818 | 2 | 1 |
| 12820 | 2 | 0 |
| 12824 | 1 | 0 |
| 12827 | 2 | 1 |
| 12828 | 2 | 1 |
| 12829 | 2 | 1 |
| 12832 | 3 | 1 |
| 12833 | 2 | 1 |
| 12842 | 1 | 0 |
| 12843 | 6 | 1 |
| 12844 | 3 | 1 |
| 12845 | 1 | 0 |
| 12849 | 9 | 1 |
| 12850 | 6 | 1 |
| 12852 | 2 | 1 |
| 12853 | 5 | 1 |
| 12856 | 4 | 1 |
| 12859 | 3 | 1 |
| 12864 | 13 | 1 |
| 12865 | 3 | 1 |
| 12867 | 3 | 0 |
| 12872 | 3 | 1 |
| 12874 | 3 | 1 |
| 12875 | 3 | 0 |
| 12879 | 3 | 1 |
| 12880 | 9 | 0 |
| 12881 | 2 | 1 |
| 12882 | 4 | 1 |
| 12883 | 6 | 1 |
| 12887 | 3 | 1 |
| 12888 | 9 | 1 |
| 12889 | 3 | 1 |
| 12890 | 11 | 1 |
| 12891 | 4 | 1 |
| 12893 | 4 | 1 |
| 12894 | 6 | 1 |
| 12897 | 3 | 1 |
| 12899 | 6 | 1 |
| 12900 | 5 | 1 |
| 12902 | 12 | 1 |
| 12903 | 3 | 1 |
| 12904 | 4 | 1 |
| 12907 | 7 | 1 |
| 12910 | 1 | 0 |

| | | |
|---|---|---|
| 12911 | 3 | 1 |
| 12912 | 4 | 1 |
| 12915 | 1 | 0 |
| 12916 | 4 | 1 |
| 12918 | 2 | 1 |
| 12921 | 1 | 0 |
| 12924 | 2 | 1 |
| 12925 | 3 | 1 |
| 12927 | 2 | 0 |
| 12928 | 7 | 1 |
| 12929 | 3 | 1 |
| 12931 | 6 | 1 |
| 12934 | 4 | 1 |
| 12936 | 3 | 1 |
| 12937 | 11 | 1 |
| 12939 | 3 | 1 |
| 12942 | 2 | 1 |
| 12944 | 3 | 1 |
| 12945 | 5 | 1 |
| 12946 | 8 | 1 |
| 12949 | 2 | 1 |
| 12950 | 2 | 1 |
| 12955 | 3 | 1 |
| 12957 | 9 | 1 |
| 12959 | 2 | 1 |
| 12963 | 6 | 1 |
| 12964 | 8 | 1 |
| 12968 | 3 | 1 |
| 12969 | 4 | 0 |
| 12970 | 2 | 1 |
| 12971 | 4 | 1 |
| 12972 | 1 | 0 |
| 12973 | 3 | 1 |
| 12976 | 15 | 1 |
| 12977 | 7 | 1 |
| 12982 | 9 | 1 |
| 12985 | 3 | 1 |
| 12988 | 2 | 1 |
| 12992 | 6 | 0 |
| 12994 | 8 | 1 |
| 12995 | 14 | 1 |
| 12996 | 3 | 1 |
| 12997 | 1 | 0 |
| 12998 | 3 | 1 |
| 13003 | 2 | 1 |
| 13004 | 6 | 1 |
| 13005 | 1 | 0 |

| | | |
|---|---|---|
| 13007 | 5 | 0 |
| 13010 | 3 | 1 |
| 13014 | 1 | 0 |
| 13015 | 6 | 0 |
| 13017 | 2 | 0 |
| 13020 | 3 | 0 |
| 13022 | 1 | 0 |
| 13023 | 2 | 0 |
| 13025 | 7 | 1 |
| 13029 | 1 | 0 |
| 13030 | 1 | 0 |
| 13034 | 3 | 1 |
| 13036 | 1 | 0 |
| 13041 | 1 | 0 |
| 13042 | 1 | 0 |
| 13044 | 2 | 1 |
| 13046 | 4 | 1 |
| 13047 | 2 | 0 |
| 13048 | 2 | 0 |
| 13049 | 1 | 0 |
| 13056 | 3 | 1 |
| 13059 | 7 | 1 |
| 13060 | 5 | 1 |
| 13065 | 2 | 0 |
| 13067 | 3 | 1 |
| 13072 | 4 | 0 |
| 13073 | 4 | 1 |
| 13074 | 2 | 1 |
| 13078 | 1 | 0 |
| 13079 | 4 | 1 |
| 13084 | 5 | 1 |
| 13088 | 2 | 1 |
| 13093 | 1 | 0 |
| 13098 | 2 | 0 |
| 13099 | 3 | 0 |
| 13100 | 2 | 1 |
| 13101 | 1 | 0 |
| 13102 | 2 | 1 |
| 13104 | 3 | 0 |
| 13105 | 2 | 0 |
| 13108 | 3 | 0 |
| 13110 | 2 | 1 |
| 13111 | 5 | 1 |
| 13112 | 7 | 0 |
| 13113 | 3 | 0 |
| 13114 | 2 | 1 |
| 13115 | 1 | 0 |

| | | |
|---|---|---|
| 13117 | 3 | 1 |
| 13118 | 6 | 1 |
| 13119 | 1 | 0 |
| 13121 | 7 | 1 |
| 13122 | 2 | 1 |
| 13127 | 2 | 1 |
| 13128 | 7 | 1 |
| 13129 | 1 | 0 |
| 13132 | 4 | 1 |
| 13134 | 4 | 0 |
| 13137 | 1 | 0 |
| 13139 | 1 | 0 |
| 13140 | 4 | 0 |
| 13141 | 4 | 0 |
| 13143 | 2 | 0 |
| 13144 | 5 | 1 |
| 13145 | 1 | 0 |
| 13146 | 5 | 0 |
| 13147 | 3 | 1 |
| 13148 | 2 | 1 |
| 13151 | 1 | 0 |
| 13152 | 10 | 1 |
| 13154 | 2 | 1 |
| 13156 | 4 | 1 |
| 13158 | 1 | 0 |
| 13160 | 1 | 0 |
| 13161 | 4 | 1 |
| 13162 | 3 | 1 |
| 13164 | 1 | 0 |
| 13165 | 8 | 1 |
| 13172 | 4 | 1 |
| 13173 | 2 | 1 |
| 13174 | 2 | 1 |
| 13175 | 2 | 1 |
| 13177 | 1 | 0 |
| 13178 | 4 | 1 |
| 13179 | 2 | 1 |
| 13183 | 6 | 1 |
| 13184 | 8 | 1 |
| 13186 | 4 | 1 |
| 13190 | 2 | 1 |
| 13191 | 3 | 1 |
| 13192 | 4 | 1 |
| 13195 | 2 | 1 |
| 13198 | 4 | 1 |
| 13200 | 2 | 1 |
| 13201 | 3 | 1 |

| | | |
|---|---|---|
| 13202 | 7 | 1 |
| 13204 | 2 | 1 |
| 13205 | 2 | 1 |
| 13209 | 1 | 0 |
| 13211 | 3 | 1 |
| 13214 | 5 | 1 |
| 13215 | 4 | 1 |
| 13216 | 5 | 1 |
| 13220 | 9 | 0 |
| 13221 | 6 | 1 |
| 13223 | 2 | 1 |
| 13225 | 4 | 0 |
| 13226 | 3 | 1 |
| 13227 | 3 | 1 |
| 13229 | 9 | 1 |
| 13232 | 5 | 0 |
| 13233 | 3 | 0 |
| 13235 | 5 | 1 |
| 13236 | 4 | 1 |
| 13238 | 2 | 1 |
| 13240 | 3 | 0 |
| 13243 | 2 | 1 |
| 13244 | 9 | 1 |
| 13245 | 1 | 0 |
| 13246 | 3 | 1 |
| 13247 | 14 | 1 |
| 13248 | 3 | 1 |
| 13249 | 4 | 1 |
| 13252 | 5 | 1 |
| 13255 | 1 | 0 |
| 13256 | 6 | 1 |
| 13258 | 4 | 1 |
| 13261 | 5 | 0 |
| 13262 | 5 | 1 |
| 13263 | 3 | 1 |
| 13267 | 7 | 1 |
| 13269 | 1 | 0 |
| 13270 | 2 | 1 |
| 13272 | 3 | 1 |
| 13273 | 7 | 1 |
| 13275 | 1 | 0 |
| 13277 | 5 | 1 |
| 13278 | 7 | 0 |
| 13279 | 4 | 1 |
| 13280 | 5 | 1 |
| 13285 | 2 | 1 |
| 13286 | 1 | 0 |

| 13288 | 4 | 1 |
|---|---|---|
| 13290 | 12 | 1 |
| 13291 | 2 | 1 |
| 13292 | 2 | 1 |
| 13293 | 5 | 1 |
| 13299 | 5 | 1 |
| 13300 | 2 | 1 |
| 13301 | 8 | 1 |
| 13302 | 5 | 1 |
| 13303 | 2 | 1 |
| 13305 | 1 | 0 |
| 13308 | 1 | 0 |
| 13311 | 2 | 1 |
| 13312 | 2 | 0 |
| 13315 | 3 | 1 |
| 13317 | 5 | 1 |
| 13319 | 4 | 1 |
| 13322 | 4 | 1 |
| 13324 | 5 | 1 |
| 13325 | 5 | 1 |
| 13328 | 2 | 1 |
| 13329 | 7 | 1 |
| 13330 | 5 | 1 |
| 13333 | 3 | 1 |
| 13335 | 1 | 0 |
| 13337 | 2 | 1 |
| 13338 | 1 | 0 |
| 13341 | 2 | 1 |
| 13342 | 6 | 1 |
| 13344 | 2 | 1 |
| 13346 | 4 | 1 |
| 13347 | 6 | 1 |
| 13348 | 6 | 1 |
| 13350 | 6 | 1 |
| 13352 | 3 | 1 |
| 13353 | 8 | 1 |
| 13357 | 2 | 1 |
| 13359 | 4 | 1 |
| 13362 | 4 | 1 |
| 13363 | 2 | 1 |
| 13365 | 2 | 1 |
| 13366 | 1 | 0 |
| 13367 | 3 | 1 |
| 13369 | 1 | 0 |
| 13372 | 7 | 1 |
| 13377 | 1 | 0 |
| 13378 | 1 | 0 |

| | | |
|---|---|---|
| 13383 | 4 | 1 |
| 13384 | 3 | 1 |
| 13385 | 2 | 1 |
| 13387 | 10 | 1 |
| 13393 | 10 | 0 |
| 13394 | 1 | 0 |
| 13395 | 8 | 0 |
| 13396 | 2 | 0 |
| 13397 | 1 | 0 |
| 13398 | 1 | 0 |
| 13399 | 7 | 1 |
| 13400 | 3 | 1 |
| 13405 | 1 | 0 |
| 13406 | 9 | 1 |
| 13408 | 1 | 0 |
| 13409 | 3 | 1 |
| 13411 | 6 | 1 |
| 13412 | 2 | 0 |
| 13417 | 2 | 1 |
| 13419 | 1 | 0 |
| 13420 | 2 | 0 |
| 13422 | 1 | 0 |
| 13425 | 2 | 1 |
| 13427 | 4 | 1 |
| 13432 | 1 | 0 |
| 13434 | 9 | 1 |
| 13438 | 2 | 0 |
| 13439 | 6 | 1 |
| 13440 | 2 | 1 |
| 13441 | 4 | 0 |
| 13443 | 6 | 0 |
| 13444 | 3 | 1 |
| 13448 | 4 | 1 |
| 13452 | 1 | 0 |
| 13453 | 2 | 1 |
| 13454 | 2 | 0 |
| 13456 | 7 | 1 |
| 13461 | 4 | 0 |
| 13462 | 3 | 1 |
| 13464 | 8 | 1 |
| 13466 | 3 | 0 |
| 13468 | 3 | 1 |
| 13469 | 7 | 0 |
| 13470 | 3 | 1 |
| 13471 | 1 | 0 |
| 13475 | 3 | 1 |
| 13478 | 5 | 1 |

| | | |
|---|---|---|
| 13480 | 2 | 1 |
| 13482 | 1 | 0 |
| 13483 | 1 | 0 |
| 13484 | 2 | 1 |
| 13486 | 3 | 1 |
| 13488 | 1 | 0 |
| 13490 | 3 | 1 |
| 13492 | 3 | 1 |
| 13494 | 2 | 1 |
| 13495 | 2 | 0 |
| 13496 | 2 | 1 |
| 13497 | 1 | 0 |
| 13498 | 1 | 0 |
| 13506 | 3 | 1 |
| 13508 | 4 | 0 |
| 13509 | 6 | 0 |
| 13511 | 5 | 1 |
| 13514 | 5 | 1 |
| 13516 | 6 | 1 |
| 13520 | 8 | 0 |
| 13521 | 2 | 1 |
| 13522 | 2 | 1 |
| 13523 | 3 | 0 |
| 13526 | 6 | 1 |
| 13527 | 2 | 1 |
| 13528 | 7 | 0 |
| 13531 | 5 | 1 |
| 13532 | 4 | 1 |
| 13533 | 2 | 1 |
| 13534 | 2 | 1 |
| 13539 | 7 | 1 |
| 13541 | 3 | 1 |
| 13542 | 4 | 1 |
| 13543 | 1 | 0 |
| 13547 | 5 | 1 |
| 13548 | 6 | 1 |
| 13549 | 4 | 1 |
| 13550 | 4 | 1 |
| 13551 | 1 | 0 |
| 13552 | 5 | 1 |
| 13553 | 2 | 1 |
| 13555 | 1 | 0 |
| 13556 | 5 | 1 |
| 13557 | 1 | 0 |
| 13563 | 4 | 1 |
| 13564 | 2 | 1 |
| 13565 | 2 | 1 |

| 13569 | 2 | 1 |
|---|---|---|
| 13570 | 2 | 1 |
| 13572 | 4 | 1 |
| 13575 | 4 | 1 |
| 13576 | 4 | 1 |
| 13577 | 3 | 1 |
| 13578 | 2 | 1 |
| 13579 | 11 | 0 |
| 13580 | 10 | 1 |
| 13581 | 8 | 1 |
| 13583 | 5 | 1 |
| 13584 | 3 | 1 |
| 13585 | 2 | 1 |
| 13586 | 2 | 1 |
| 13589 | 2 | 1 |
| 13590 | 4 | 1 |
| 13591 | 6 | 1 |
| 13592 | 2 | 1 |
| 13594 | 5 | 1 |
| 13595 | 5 | 1 |
| 13600 | 2 | 1 |
| 13605 | 5 | 1 |
| 13608 | 4 | 1 |
| 13612 | 1 | 0 |
| 13613 | 3 | 1 |
| 13617 | 1 | 0 |
| 13618 | 5 | 1 |
| 13621 | 2 | 1 |
| 13623 | 6 | 1 |
| 13624 | 2 | 1 |
| 13625 | 4 | 0 |
| 13627 | 2 | 1 |
| 13630 | 1 | 0 |
| 13631 | 7 | 1 |
| 13632 | 5 | 1 |
| 13640 | 2 | 1 |
| 13641 | 2 | 1 |
| 13644 | 7 | 1 |
| 13648 | 1 | 0 |
| 13649 | 2 | 1 |
| 13653 | 5 | 1 |
| 13654 | 2 | 1 |
| 13655 | 4 | 1 |
| 13658 | 2 | 1 |
| 13659 | 8 | 1 |
| 13660 | 3 | 1 |
| 13662 | 5 | 1 |

| | | |
|---|---|---|
| 13666 | 10 | 1 |
| 13667 | 2 | 1 |
| 13671 | 5 | 1 |
| 13672 | 5 | 1 |
| 13674 | 7 | 1 |
| 13676 | 2 | 1 |
| 13680 | 4 | 0 |
| 13681 | 2 | 0 |
| 13684 | 7 | 1 |
| 13685 | 1 | 0 |
| 13686 | 1 | 0 |
| 13687 | 4 | 1 |
| 13688 | 7 | 1 |
| 13691 | 4 | 1 |
| 13693 | 2 | 1 |
| 13694 | 3 | 1 |
| 13696 | 3 | 1 |
| 13697 | 6 | 1 |
| 13698 | 1 | 0 |
| 13699 | 7 | 1 |
| 13701 | 2 | 1 |
| 13702 | 8 | 1 |
| 13704 | 3 | 1 |
| 13706 | 4 | 1 |
| 13709 | 6 | 1 |
| 13710 | 3 | 1 |
| 13711 | 2 | 1 |
| 13713 | 3 | 1 |
| 13719 | 2 | 1 |
| 13720 | 2 | 1 |
| 13721 | 5 | 1 |
| 13723 | 3 | 1 |
| 13726 | 3 | 1 |
| 13727 | 2 | 1 |
| 13729 | 3 | 1 |
| 13731 | 2 | 1 |
| 13732 | 2 | 1 |
| 13733 | 3 | 0 |
| 13734 | 3 | 1 |
| 13737 | 3 | 1 |
| 13741 | 2 | 1 |
| 13742 | 3 | 1 |
| 13743 | 2 | 0 |
| 13744 | 3 | 1 |
| 13747 | 2 | 1 |
| 13750 | 2 | 1 |
| 13754 | 6 | 1 |

| 13755 | 4 | 1 |
|---|---|---|
| 13757 | 7 | 1 |
| 13759 | 2 | 0 |
| 13761 | 7 | 1 |
| 13762 | 3 | 1 |
| 13763 | 1 | 0 |
| 13764 | 7 | 1 |
| 13765 | 3 | 1 |
| 13766 | 1 | 0 |
| 13769 | 1 | 0 |
| 13773 | 4 | 1 |
| 13775 | 5 | 1 |
| 13776 | 7 | 1 |
| 13778 | 2 | 1 |
| 13782 | 1 | 0 |
| 13783 | 2 | 1 |
| 13784 | 1 | 0 |
| 13785 | 4 | 1 |
| 13787 | 1 | 0 |
| 13789 | 3 | 1 |
| 13790 | 3 | 1 |
| 13793 | 3 | 1 |
| 13797 | 6 | 1 |
| 13798 | 1 | 0 |
| 13799 | 4 | 1 |
| 13804 | 2 | 0 |

# QUERY 4 : Weekly Engagement Per Device:

-- To Measure the activeness of users on a weekly basis per device.

-- It is measured by counting the no. of users engaged in each device every week.


SELECT extract(week from occured_at) as week, extract(year from occured_at) as year, device,

count(distinct user_id) as count from events

where event_type = 'engagement'

group by 1,2,3

order by 1,2,3;

| week | year | device | count |
|---|---|---|---|
| 17 | 2014 | acer aspire desktop | 9 |
| 17 | 2014 | acer aspire notebook | 20 |

| 17 | 2014 | amazon fire phone | 4 |
|---|---|---|---|
| 17 | 2014 | asus chromebook | 21 |
| 17 | 2014 | dell inspiron desktop | 18 |
| 17 | 2014 | dell inspiron notebook | 46 |
| 17 | 2014 | hp pavilion desktop | 14 |
| 17 | 2014 | htc one | 16 |
| 17 | 2014 | ipad air | 27 |
| 17 | 2014 | ipad mini | 19 |
| 17 | 2014 | iphone 4s | 21 |
| 17 | 2014 | iphone 5 | 65 |
| 17 | 2014 | iphone 5s | 42 |
| 17 | 2014 | kindle fire | 6 |
| 17 | 2014 | lenovo thinkpad | 86 |
| 17 | 2014 | mac mini | 6 |
| 17 | 2014 | macbook air | 54 |
| 17 | 2014 | macbook pro | 143 |
| 17 | 2014 | nexus 10 | 16 |
| 17 | 2014 | nexus 5 | 40 |
| 17 | 2014 | nexus 7 | 18 |
| 17 | 2014 | nokia lumia 635 | 17 |
| 17 | 2014 | samsumg galaxy tablet | 8 |
| 17 | 2014 | samsung galaxy note | 7 |
| 17 | 2014 | samsung galaxy s4 | 52 |
| 17 | 2014 | windows surface | 10 |
| 18 | 2014 | acer aspire desktop | 26 |
| 18 | 2014 | acer aspire notebook | 33 |
| 18 | 2014 | amazon fire phone | 9 |
| 18 | 2014 | asus chromebook | 42 |
| 18 | 2014 | dell inspiron desktop | 58 |

| 18 | 2014 | dell inspiron notebook | 77 |
|----|------|------------------------|-----|
| 18 | 2014 | hp pavilion desktop | 37 |
| 18 | 2014 | htc one | 19 |
| 18 | 2014 | ipad air | 52 |
| 18 | 2014 | ipad mini | 30 |
| 18 | 2014 | iphone 4s | 46 |
| 18 | 2014 | iphone 5 | 113 |
| 18 | 2014 | iphone 5s | 73 |
| 18 | 2014 | kindle fire | 27 |
| 18 | 2014 | lenovo thinkpad | 153 |
| 18 | 2014 | mac mini | 13 |
| 18 | 2014 | macbook air | 121 |
| 18 | 2014 | macbook pro | 252 |
| 18 | 2014 | nexus 10 | 30 |
| 18 | 2014 | nexus 5 | 73 |
| 18 | 2014 | nexus 7 | 30 |
| 18 | 2014 | nokia lumia 635 | 33 |
| 18 | 2014 | samsumg galaxy tablet | 11 |
| 18 | 2014 | samsung galaxy note | 15 |
| 18 | 2014 | samsung galaxy s4 | 82 |
| 18 | 2014 | windows surface | 10 |
| 19 | 2014 | acer aspire desktop | 23 |
| 19 | 2014 | acer aspire notebook | 41 |
| 19 | 2014 | amazon fire phone | 12 |
| 19 | 2014 | asus chromebook | 27 |
| 19 | 2014 | dell inspiron desktop | 36 |
| 19 | 2014 | dell inspiron notebook | 83 |
| 19 | 2014 | hp pavilion desktop | 40 |
| 19 | 2014 | htc one | 30 |

| 19 | 2014 | ipad air | 55 |
|----|------|----------|-----|
| 19 | 2014 | ipad mini | 36 |
| 19 | 2014 | iphone 4s | 44 |
| 19 | 2014 | iphone 5 | 115 |
| 19 | 2014 | iphone 5s | 79 |
| 19 | 2014 | kindle fire | 21 |
| 19 | 2014 | lenovo thinkpad | 178 |
| 19 | 2014 | mac mini | 18 |
| 19 | 2014 | macbook air | 112 |
| 19 | 2014 | macbook pro | 266 |
| 19 | 2014 | nexus 10 | 25 |
| 19 | 2014 | nexus 5 | 87 |
| 19 | 2014 | nexus 7 | 41 |
| 19 | 2014 | nokia lumia 635 | 23 |
| 19 | 2014 | samsumg galaxy tablet | 6 |
| 19 | 2014 | samsung galaxy note | 11 |
| 19 | 2014 | samsung galaxy s4 | 91 |
| 19 | 2014 | windows surface | 16 |
| 20 | 2014 | acer aspire desktop | 23 |
| 20 | 2014 | acer aspire notebook | 40 |
| 20 | 2014 | amazon fire phone | 11 |
| 20 | 2014 | asus chromebook | 41 |
| 20 | 2014 | dell inspiron desktop | 52 |
| 20 | 2014 | dell inspiron notebook | 84 |
| 20 | 2014 | hp pavilion desktop | 30 |
| 20 | 2014 | htc one | 29 |
| 20 | 2014 | ipad air | 59 |
| 20 | 2014 | ipad mini | 32 |
| 20 | 2014 | iphone 4s | 55 |

| 20 | 2014 | iphone 5 | 125 |
|---|---|---|---|
| 20 | 2014 | iphone 5s | 79 |
| 20 | 2014 | kindle fire | 23 |
| 20 | 2014 | lenovo thinkpad | 173 |
| 20 | 2014 | mac mini | 26 |
| 20 | 2014 | macbook air | 119 |
| 20 | 2014 | macbook pro | 256 |
| 20 | 2014 | nexus 10 | 22 |
| 20 | 2014 | nexus 5 | 103 |
| 20 | 2014 | nexus 7 | 32 |
| 20 | 2014 | nokia lumia 635 | 22 |
| 20 | 2014 | samsumg galaxy tablet | 9 |
| 20 | 2014 | samsung galaxy note | 18 |
| 20 | 2014 | samsung galaxy s4 | 93 |
| 20 | 2014 | windows surface | 21 |
| 21 | 2014 | acer aspire desktop | 29 |
| 21 | 2014 | acer aspire notebook | 47 |
| 21 | 2014 | amazon fire phone | 5 |
| 21 | 2014 | asus chromebook | 38 |
| 21 | 2014 | dell inspiron desktop | 41 |
| 21 | 2014 | dell inspiron notebook | 80 |
| 21 | 2014 | hp pavilion desktop | 44 |
| 21 | 2014 | htc one | 21 |
| 21 | 2014 | ipad air | 51 |
| 21 | 2014 | ipad mini | 23 |
| 21 | 2014 | iphone 4s | 45 |
| 21 | 2014 | iphone 5 | 137 |
| 21 | 2014 | iphone 5s | 74 |
| 21 | 2014 | kindle fire | 30 |

| | | | |
|---|---|---|---|
| 21 | 2014 | lenovo thinkpad | 167 |
| 21 | 2014 | mac mini | 18 |
| 21 | 2014 | macbook air | 110 |
| 21 | 2014 | macbook pro | 247 |
| 21 | 2014 | nexus 10 | 25 |
| 21 | 2014 | nexus 5 | 91 |
| 21 | 2014 | nexus 7 | 29 |
| 21 | 2014 | nokia lumia 635 | 25 |
| 21 | 2014 | samsumg galaxy tablet | 6 |
| 21 | 2014 | samsung galaxy note | 20 |
| 21 | 2014 | samsung galaxy s4 | 84 |
| 21 | 2014 | windows surface | 17 |
| 22 | 2014 | acer aspire desktop | 25 |
| 22 | 2014 | acer aspire notebook | 41 |
| 22 | 2014 | amazon fire phone | 5 |
| 22 | 2014 | asus chromebook | 52 |
| 22 | 2014 | dell inspiron desktop | 52 |
| 22 | 2014 | dell inspiron notebook | 92 |
| 22 | 2014 | hp pavilion desktop | 38 |
| 22 | 2014 | htc one | 24 |
| 22 | 2014 | ipad air | 58 |
| 22 | 2014 | ipad mini | 34 |
| 22 | 2014 | iphone 4s | 45 |
| 22 | 2014 | iphone 5 | 125 |
| 22 | 2014 | iphone 5s | 71 |
| 22 | 2014 | kindle fire | 21 |
| 22 | 2014 | lenovo thinkpad | 176 |
| 22 | 2014 | mac mini | 25 |
| 22 | 2014 | macbook air | 145 |

| 22 | 2014 | macbook pro | 251 |
|----|------|-------------|-----|
| 22 | 2014 | nexus 10 | 27 |
| 22 | 2014 | nexus 5 | 96 |
| 22 | 2014 | nexus 7 | 45 |
| 22 | 2014 | nokia lumia 635 | 25 |
| 22 | 2014 | samsumg galaxy tablet | 10 |
| 22 | 2014 | samsung galaxy note | 19 |
| 22 | 2014 | samsung galaxy s4 | 105 |
| 22 | 2014 | windows surface | 15 |
| 23 | 2014 | acer aspire desktop | 22 |
| 23 | 2014 | acer aspire notebook | 43 |
| 23 | 2014 | amazon fire phone | 16 |
| 23 | 2014 | asus chromebook | 49 |
| 23 | 2014 | dell inspiron desktop | 53 |
| 23 | 2014 | dell inspiron notebook | 103 |
| 23 | 2014 | hp pavilion desktop | 54 |
| 23 | 2014 | htc one | 20 |
| 23 | 2014 | ipad air | 41 |
| 23 | 2014 | ipad mini | 33 |
| 23 | 2014 | iphone 4s | 53 |
| 23 | 2014 | iphone 5 | 152 |
| 23 | 2014 | iphone 5s | 79 |
| 23 | 2014 | kindle fire | 25 |
| 23 | 2014 | lenovo thinkpad | 176 |
| 23 | 2014 | mac mini | 18 |
| 23 | 2014 | macbook air | 124 |
| 23 | 2014 | macbook pro | 266 |
| 23 | 2014 | nexus 10 | 45 |
| 23 | 2014 | nexus 5 | 88 |

| 23 | 2014 | nexus 7 | 36 |
|---|---|---|---|
| 23 | 2014 | nokia lumia 635 | 31 |
| 23 | 2014 | samsumg galaxy tablet | 14 |
| 23 | 2014 | samsung galaxy note | 14 |
| 23 | 2014 | samsung galaxy s4 | 99 |
| 23 | 2014 | windows surface | 14 |
| 24 | 2014 | acer aspire desktop | 24 |
| 24 | 2014 | acer aspire notebook | 40 |
| 24 | 2014 | amazon fire phone | 11 |
| 24 | 2014 | asus chromebook | 43 |
| 24 | 2014 | dell inspiron desktop | 59 |
| 24 | 2014 | dell inspiron notebook | 99 |
| 24 | 2014 | hp pavilion desktop | 56 |
| 24 | 2014 | htc one | 20 |
| 24 | 2014 | ipad air | 57 |
| 24 | 2014 | ipad mini | 39 |
| 24 | 2014 | iphone 4s | 53 |
| 24 | 2014 | iphone 5 | 142 |
| 24 | 2014 | iphone 5s | 79 |
| 24 | 2014 | kindle fire | 25 |
| 24 | 2014 | lenovo thinkpad | 165 |
| 24 | 2014 | mac mini | 29 |
| 24 | 2014 | macbook air | 152 |
| 24 | 2014 | macbook pro | 255 |
| 24 | 2014 | nexus 10 | 38 |
| 24 | 2014 | nexus 5 | 87 |
| 24 | 2014 | nexus 7 | 49 |
| 24 | 2014 | nokia lumia 635 | 35 |
| 24 | 2014 | samsumg galaxy tablet | 11 |

| 24 | 2014 | samsung galaxy note | 20 |
|----|------|---------------------|-----|
| 24 | 2014 | samsung galaxy s4 | 101 |
| 24 | 2014 | windows surface | 22 |
| 25 | 2014 | acer aspire desktop | 28 |
| 25 | 2014 | acer aspire notebook | 47 |
| 25 | 2014 | amazon fire phone | 13 |
| 25 | 2014 | asus chromebook | 38 |
| 25 | 2014 | dell inspiron desktop | 52 |
| 25 | 2014 | dell inspiron notebook | 105 |
| 25 | 2014 | hp pavilion desktop | 52 |
| 25 | 2014 | htc one | 21 |
| 25 | 2014 | ipad air | 57 |
| 25 | 2014 | ipad mini | 30 |
| 25 | 2014 | iphone 4s | 40 |
| 25 | 2014 | iphone 5 | 137 |
| 25 | 2014 | iphone 5s | 78 |
| 25 | 2014 | kindle fire | 24 |
| 25 | 2014 | lenovo thinkpad | 197 |
| 25 | 2014 | mac mini | 21 |
| 25 | 2014 | macbook air | 121 |
| 25 | 2014 | macbook pro | 275 |
| 25 | 2014 | nexus 10 | 29 |
| 25 | 2014 | nexus 5 | 89 |
| 25 | 2014 | nexus 7 | 51 |
| 25 | 2014 | nokia lumia 635 | 37 |
| 25 | 2014 | samsumg galaxy tablet | 12 |
| 25 | 2014 | samsung galaxy note | 14 |
| 25 | 2014 | samsung galaxy s4 | 99 |
| 25 | 2014 | windows surface | 22 |

| 26 | 2014 | acer aspire desktop | 29 |
| --- | --- | --- | --- |
| 26 | 2014 | acer aspire notebook | 35 |
| 26 | 2014 | amazon fire phone | 13 |
| 26 | 2014 | asus chromebook | 49 |
| 26 | 2014 | dell inspiron desktop | 60 |
| 26 | 2014 | dell inspiron notebook | 89 |
| 26 | 2014 | hp pavilion desktop | 46 |
| 26 | 2014 | htc one | 23 |
| 26 | 2014 | ipad air | 56 |
| 26 | 2014 | ipad mini | 43 |
| 26 | 2014 | iphone 4s | 50 |
| 26 | 2014 | iphone 5 | 152 |
| 26 | 2014 | iphone 5s | 94 |
| 26 | 2014 | kindle fire | 26 |
| 26 | 2014 | lenovo thinkpad | 192 |
| 26 | 2014 | mac mini | 11 |
| 26 | 2014 | macbook air | 134 |
| 26 | 2014 | macbook pro | 269 |
| 26 | 2014 | nexus 10 | 29 |
| 26 | 2014 | nexus 5 | 87 |
| 26 | 2014 | nexus 7 | 46 |
| 26 | 2014 | nokia lumia 635 | 42 |
| 26 | 2014 | samsumg galaxy tablet | 12 |
| 26 | 2014 | samsung galaxy note | 9 |
| 26 | 2014 | samsung galaxy s4 | 112 |
| 26 | 2014 | windows surface | 21 |
| 27 | 2014 | acer aspire desktop | 29 |
| 27 | 2014 | acer aspire notebook | 49 |
| 27 | 2014 | amazon fire phone | 10 |

| 27 | 2014 | asus chromebook | 52 |
|----|------|-----------------|-----|
| 27 | 2014 | dell inspiron desktop | 53 |
| 27 | 2014 | dell inspiron notebook | 89 |
| 27 | 2014 | hp pavilion desktop | 56 |
| 27 | 2014 | htc one | 27 |
| 27 | 2014 | ipad air | 55 |
| 27 | 2014 | ipad mini | 35 |
| 27 | 2014 | iphone 4s | 67 |
| 27 | 2014 | iphone 5 | 163 |
| 27 | 2014 | iphone 5s | 83 |
| 27 | 2014 | kindle fire | 25 |
| 27 | 2014 | lenovo thinkpad | 202 |
| 27 | 2014 | mac mini | 15 |
| 27 | 2014 | macbook air | 142 |
| 27 | 2014 | macbook pro | 302 |
| 27 | 2014 | nexus 10 | 37 |
| 27 | 2014 | nexus 5 | 84 |
| 27 | 2014 | nexus 7 | 40 |
| 27 | 2014 | nokia lumia 635 | 31 |
| 27 | 2014 | samsumg galaxy tablet | 15 |
| 27 | 2014 | samsung galaxy note | 15 |
| 27 | 2014 | samsung galaxy s4 | 116 |
| 27 | 2014 | windows surface | 33 |
| 28 | 2014 | acer aspire desktop | 30 |
| 28 | 2014 | acer aspire notebook | 49 |
| 28 | 2014 | amazon fire phone | 6 |
| 28 | 2014 | asus chromebook | 50 |
| 28 | 2014 | dell inspiron desktop | 56 |
| 28 | 2014 | dell inspiron notebook | 103 |

| 28 | 2014 | hp pavilion desktop | 56 |
| --- | --- | --- | --- |
| 28 | 2014 | htc one | 26 |
| 28 | 2014 | ipad air | 54 |
| 28 | 2014 | ipad mini | 35 |
| 28 | 2014 | iphone 4s | 61 |
| 28 | 2014 | iphone 5 | 151 |
| 28 | 2014 | iphone 5s | 93 |
| 28 | 2014 | kindle fire | 31 |
| 28 | 2014 | lenovo thinkpad | 220 |
| 28 | 2014 | mac mini | 28 |
| 28 | 2014 | macbook air | 148 |
| 28 | 2014 | macbook pro | 295 |
| 28 | 2014 | nexus 10 | 26 |
| 28 | 2014 | nexus 5 | 85 |
| 28 | 2014 | nexus 7 | 39 |
| 28 | 2014 | nokia lumia 635 | 35 |
| 28 | 2014 | samsumg galaxy tablet | 9 |
| 28 | 2014 | samsung galaxy note | 10 |
| 28 | 2014 | samsung galaxy s4 | 122 |
| 28 | 2014 | windows surface | 33 |
| 29 | 2014 | acer aspire desktop | 28 |
| 29 | 2014 | acer aspire notebook | 53 |
| 29 | 2014 | amazon fire phone | 12 |
| 29 | 2014 | asus chromebook | 49 |
| 29 | 2014 | dell inspiron desktop | 54 |
| 29 | 2014 | dell inspiron notebook | 113 |
| 29 | 2014 | hp pavilion desktop | 58 |
| 29 | 2014 | htc one | 31 |
| 29 | 2014 | ipad air | 52 |

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| 29 | 2014 | ipad mini | 34 |
| 29 | 2014 | iphone 4s | 60 |
| 29 | 2014 | iphone 5 | 144 |
| 29 | 2014 | iphone 5s | 90 |
| 29 | 2014 | kindle fire | 37 |
| 29 | 2014 | lenovo thinkpad | 209 |
| 29 | 2014 | mac mini | 31 |
| 29 | 2014 | macbook air | 148 |
| 29 | 2014 | macbook pro | 295 |
| 29 | 2014 | nexus 10 | 25 |
| 29 | 2014 | nexus 5 | 77 |
| 29 | 2014 | nexus 7 | 45 |
| 29 | 2014 | nokia lumia 635 | 43 |
| 29 | 2014 | samsumg galaxy tablet | 13 |
| 29 | 2014 | samsung galaxy note | 16 |
| 29 | 2014 | samsung galaxy s4 | 123 |
| 29 | 2014 | windows surface | 28 |
| 30 | 2014 | acer aspire desktop | 33 |
| 30 | 2014 | acer aspire notebook | 60 |
| 30 | 2014 | amazon fire phone | 12 |
| 30 | 2014 | asus chromebook | 56 |
| 30 | 2014 | dell inspiron desktop | 54 |
| 30 | 2014 | dell inspiron notebook | 127 |
| 30 | 2014 | hp pavilion desktop | 42 |
| 30 | 2014 | htc one | 31 |
| 30 | 2014 | ipad air | 70 |
| 30 | 2014 | ipad mini | 35 |
| 30 | 2014 | iphone 4s | 65 |
| 30 | 2014 | iphone 5 | 152 |

| 30 | 2014 | iphone 5s | 103 |
|----|------|-----------|-----|
| 30 | 2014 | kindle fire | 25 |
| 30 | 2014 | lenovo thinkpad | 206 |
| 30 | 2014 | mac mini | 23 |
| 30 | 2014 | macbook air | 159 |
| 30 | 2014 | macbook pro | 322 |
| 30 | 2014 | nexus 10 | 36 |
| 30 | 2014 | nexus 5 | 84 |
| 30 | 2014 | nexus 7 | 62 |
| 30 | 2014 | nokia lumia 635 | 34 |
| 30 | 2014 | samsumg galaxy tablet | 9 |
| 30 | 2014 | samsung galaxy note | 15 |
| 30 | 2014 | samsung galaxy s4 | 103 |
| 30 | 2014 | windows surface | 19 |
| 31 | 2014 | acer aspire desktop | 31 |
| 31 | 2014 | acer aspire notebook | 55 |
| 31 | 2014 | amazon fire phone | 14 |
| 31 | 2014 | asus chromebook | 56 |
| 31 | 2014 | dell inspiron desktop | 44 |
| 31 | 2014 | dell inspiron notebook | 113 |
| 31 | 2014 | hp pavilion desktop | 51 |
| 31 | 2014 | htc one | 13 |
| 31 | 2014 | ipad air | 55 |
| 31 | 2014 | ipad mini | 27 |
| 31 | 2014 | iphone 4s | 56 |
| 31 | 2014 | iphone 5 | 135 |
| 31 | 2014 | iphone 5s | 71 |
| 31 | 2014 | kindle fire | 14 |
| 31 | 2014 | lenovo thinkpad | 207 |

| 31 | 2014 | mac mini | 24 |
| --- | --- | --- | --- |
| 31 | 2014 | macbook air | 147 |
| 31 | 2014 | macbook pro | 321 |
| 31 | 2014 | nexus 10 | 24 |
| 31 | 2014 | nexus 5 | 69 |
| 31 | 2014 | nexus 7 | 38 |
| 31 | 2014 | nokia lumia 635 | 28 |
| 31 | 2014 | samsumg galaxy tablet | 8 |
| 31 | 2014 | samsung galaxy note | 14 |
| 31 | 2014 | samsung galaxy s4 | 100 |
| 31 | 2014 | windows surface | 19 |
| 32 | 2014 | acer aspire desktop | 35 |
| 32 | 2014 | acer aspire notebook | 55 |
| 32 | 2014 | amazon fire phone | 12 |
| 32 | 2014 | asus chromebook | 62 |
| 32 | 2014 | dell inspiron desktop | 57 |
| 32 | 2014 | dell inspiron notebook | 104 |
| 32 | 2014 | hp pavilion desktop | 51 |
| 32 | 2014 | htc one | 18 |
| 32 | 2014 | ipad air | 48 |
| 32 | 2014 | ipad mini | 30 |
| 32 | 2014 | iphone 4s | 34 |
| 32 | 2014 | iphone 5 | 119 |
| 32 | 2014 | iphone 5s | 67 |
| 32 | 2014 | kindle fire | 12 |
| 32 | 2014 | lenovo thinkpad | 179 |
| 32 | 2014 | mac mini | 20 |
| 32 | 2014 | macbook air | 125 |
| 32 | 2014 | macbook pro | 307 |

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| 32 | 2014 | nexus 10 | 30 |
| 32 | 2014 | nexus 5 | 67 |
| 32 | 2014 | nexus 7 | 25 |
| 32 | 2014 | nokia lumia 635 | 28 |
| 32 | 2014 | samsumg galaxy tablet | 6 |
| 32 | 2014 | samsung galaxy note | 12 |
| 32 | 2014 | samsung galaxy s4 | 82 |
| 32 | 2014 | windows surface | 10 |
| 33 | 2014 | acer aspire desktop | 39 |
| 33 | 2014 | acer aspire notebook | 46 |
| 33 | 2014 | amazon fire phone | 14 |
| 33 | 2014 | asus chromebook | 49 |
| 33 | 2014 | dell inspiron desktop | 37 |
| 33 | 2014 | dell inspiron notebook | 110 |
| 33 | 2014 | hp pavilion desktop | 38 |
| 33 | 2014 | htc one | 19 |
| 33 | 2014 | ipad air | 40 |
| 33 | 2014 | ipad mini | 28 |
| 33 | 2014 | iphone 4s | 35 |
| 33 | 2014 | iphone 5 | 110 |
| 33 | 2014 | iphone 5s | 65 |
| 33 | 2014 | kindle fire | 14 |
| 33 | 2014 | lenovo thinkpad | 191 |
| 33 | 2014 | mac mini | 32 |
| 33 | 2014 | macbook air | 133 |
| 33 | 2014 | macbook pro | 312 |
| 33 | 2014 | nexus 10 | 23 |
| 33 | 2014 | nexus 5 | 70 |
| 33 | 2014 | nexus 7 | 30 |

| 33 | 2014 | nokia lumia 635 | 27 |
|----|------|-----------------|-----|
| 33 | 2014 | samsumg galaxy tablet | 12 |
| 33 | 2014 | samsung galaxy note | 13 |
| 33 | 2014 | samsung galaxy s4 | 80 |
| 33 | 2014 | windows surface | 15 |
| 34 | 2014 | acer aspire desktop | 30 |
| 34 | 2014 | acer aspire notebook | 63 |
| 34 | 2014 | amazon fire phone | 11 |
| 34 | 2014 | asus chromebook | 47 |
| 34 | 2014 | dell inspiron desktop | 49 |
| 34 | 2014 | dell inspiron notebook | 105 |
| 34 | 2014 | hp pavilion desktop | 36 |
| 34 | 2014 | htc one | 25 |
| 34 | 2014 | ipad air | 39 |
| 34 | 2014 | ipad mini | 25 |
| 34 | 2014 | iphone 4s | 50 |
| 34 | 2014 | iphone 5 | 101 |
| 34 | 2014 | iphone 5s | 70 |
| 34 | 2014 | kindle fire | 13 |
| 34 | 2014 | lenovo thinkpad | 193 |
| 34 | 2014 | mac mini | 30 |
| 34 | 2014 | macbook air | 136 |
| 34 | 2014 | macbook pro | 292 |
| 34 | 2014 | nexus 10 | 25 |
| 34 | 2014 | nexus 5 | 70 |
| 34 | 2014 | nexus 7 | 33 |
| 34 | 2014 | nokia lumia 635 | 17 |
| 34 | 2014 | samsumg galaxy tablet | 14 |
| 34 | 2014 | samsung galaxy note | 13 |

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|---|---|---|---|
| 34 | 2014 | samsung galaxy s4 | 90 |
| 34 | 2014 | windows surface | 18 |
| 35 | 2014 | acer aspire desktop | 1 |
| 35 | 2014 | acer aspire notebook | 3 |
| 35 | 2014 | asus chromebook | 6 |
| 35 | 2014 | dell inspiron desktop | 1 |
| 35 | 2014 | dell inspiron notebook | 9 |
| 35 | 2014 | hp pavilion desktop | 1 |
| 35 | 2014 | htc one | 2 |
| 35 | 2014 | ipad mini | 2 |
| 35 | 2014 | iphone 4s | 6 |
| 35 | 2014 | iphone 5 | 2 |
| 35 | 2014 | iphone 5s | 3 |
| 35 | 2014 | kindle fire | 3 |
| 35 | 2014 | lenovo thinkpad | 16 |
| 35 | 2014 | mac mini | 2 |
| 35 | 2014 | macbook air | 10 |
| 35 | 2014 | macbook pro | 17 |
| 35 | 2014 | nexus 10 | 2 |
| 35 | 2014 | nexus 5 | 4 |
| 35 | 2014 | nexus 7 | 2 |
| 35 | 2014 | nokia lumia 635 | 2 |
| 35 | 2014 | samsung galaxy note | 1 |
| 35 | 2014 | samsung galaxy s4 | 6 |
| 35 | 2014 | windows surface | 3 |

# QUERY 5 : email Engagement Analysis:

-- To Analyze how users are engaging with the email service

SELECT

100*sum(CASE WHEN email_category = 'email_open' then 1 else 0 end)/sum(CASE WHEN email_category = 'email_sent' then 1 else 0 end)

as open_rate,

100*sum(CASE WHEN email_category = 'email_click' then 1 else 0 end)/sum(CASE WHEN email_category = 'email_sent' then 1 else 0 end)

as click_rate

FROM (

SELECT *,

CASE

      WHEN actions in ('sent_weekly_digest', 'sent_reengagement_email') then 'email_sent'

   WHEN actions in ('email_open') then 'email_open'

   WHEN actions in ('email_clickthrough') then 'email_click'

end as email_category

from email_events)e;

| open_rate | click_rate |
|-----------|------------|
| 33.5834   | 14.7899    |