



OPERATION ANALYTICS AND INVESTIGATING METRIC SPIKE

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01

PROJECT DESCRIPTION

What we aim to do in this project

WHAT WE AIM

Our project is aimed at analyzing two cases –

1) Operation analysis of job data: we will try to find throughput, percentage share of language and display duplicate rows

2) Calculating metrics related to a social networking service: we will try to find user engagement, user growth, weekly retention, weekly engagement and email engagement as on September 2, 2014



02

APPRAOCH

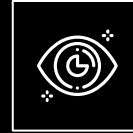
Step by Step framework used in the
process

DATA ANALYTICS FRAMEWORK



1. ASK

Noting down key business questions asked by management team



2. PREPARE

Job data such as job_id, actor_id, time_spent etc and User_event data such as user_id, event_type, relevant timeline etc is needed



3. PROCESS

Data is collected by importing the provided csv to mysql



4. ANALYZE

Data analysis using SQL queries to answer the business questions



5. SHARE

Bringing data to life with visuals and sharing final report



6. ACT

Deriving meaningful insights from analysis

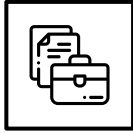


03

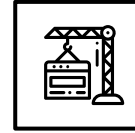
TECH-STACK USED

Armoury of tools used during the project

TOOL USED



MY-SQL



MS EXCEL

04

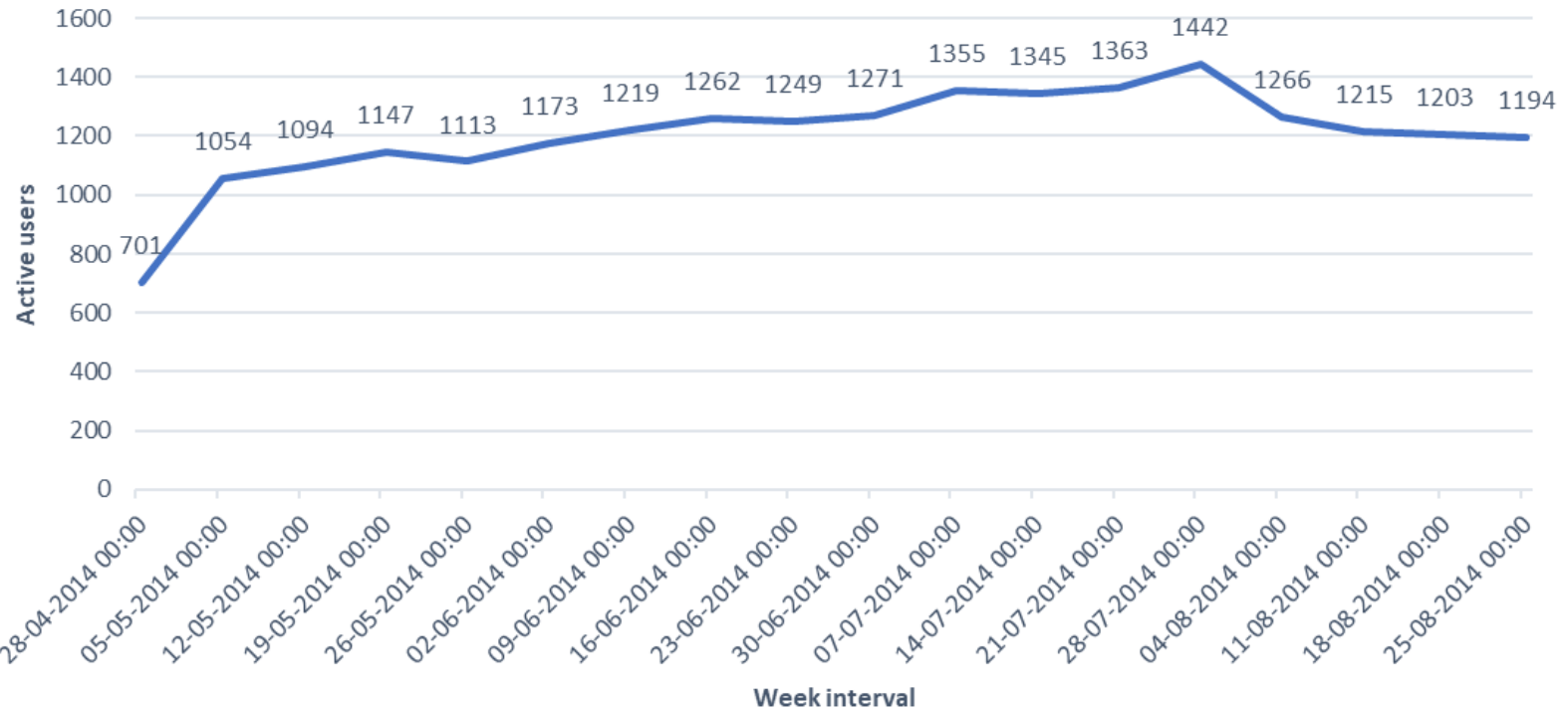
RESULTS

Making sense of why we did the
project

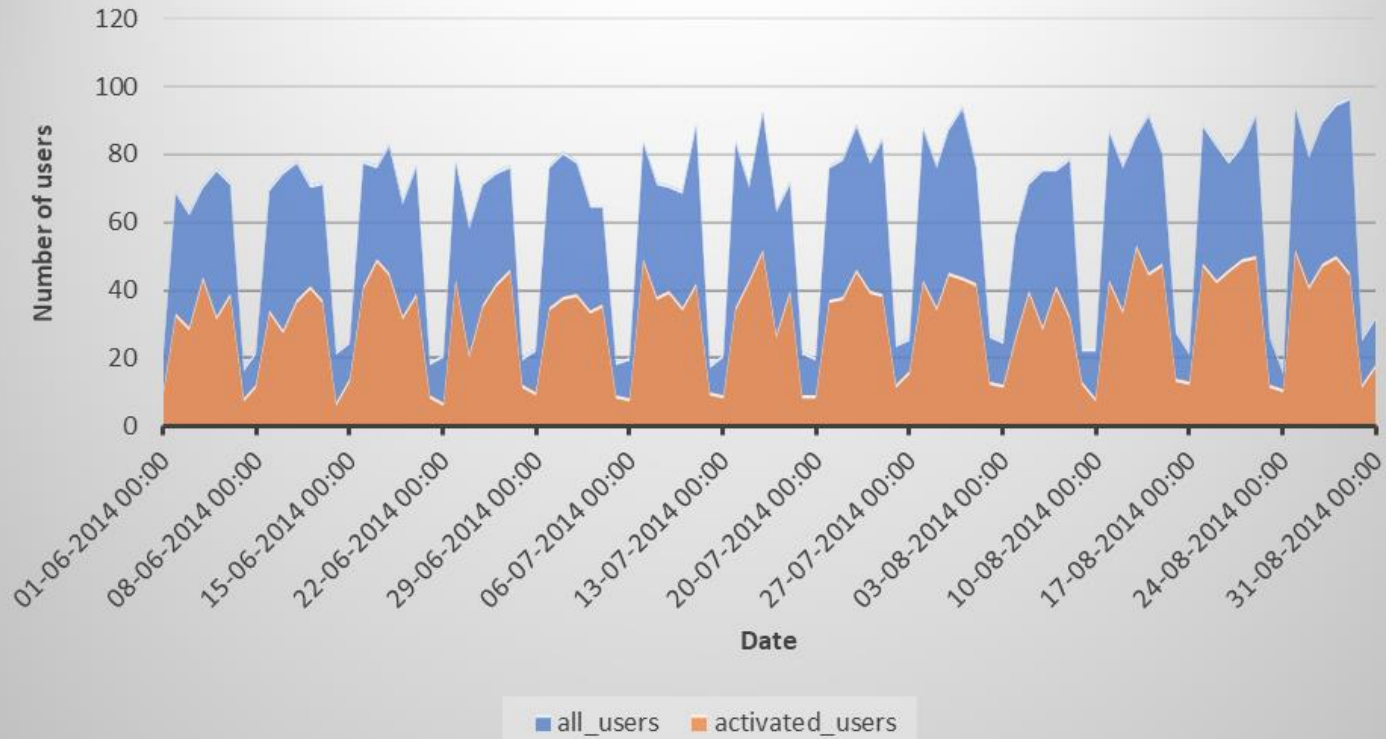
ANSWERS TO BUSINESS QUESTIONS

All queries can be found in attached SQL Script. The result sets generated are exported to attached Excel file to visualize data

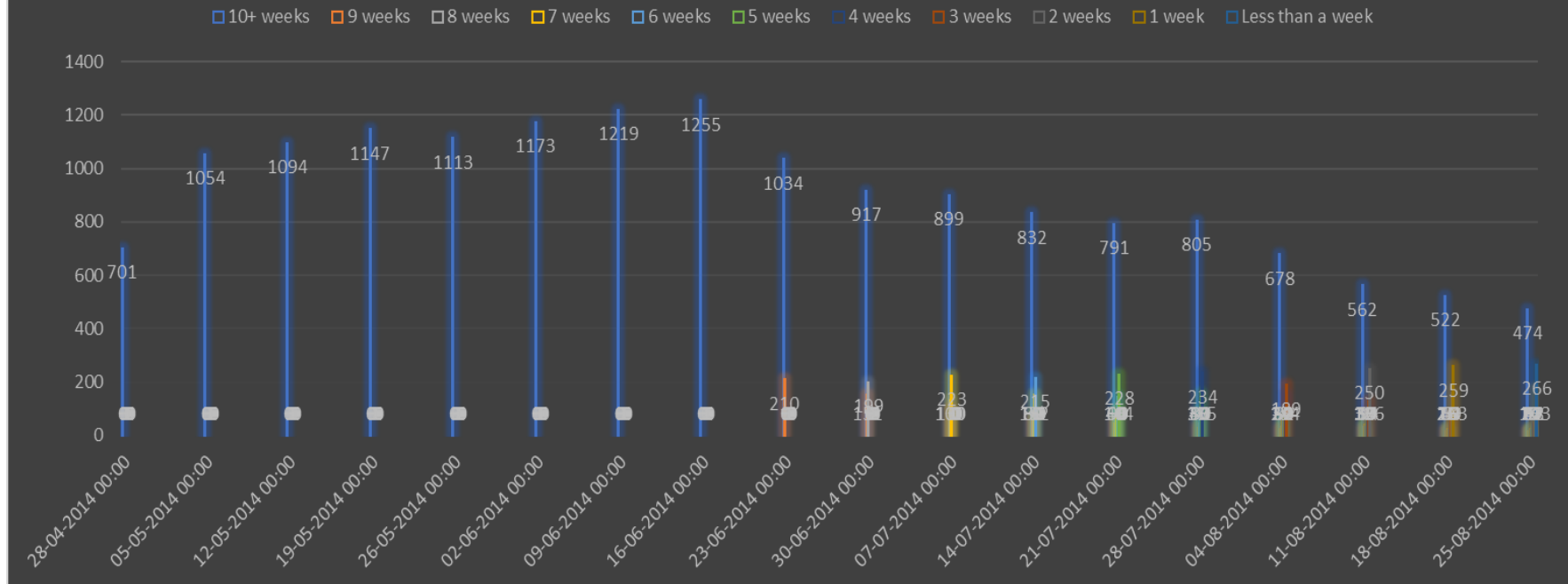
User engagement



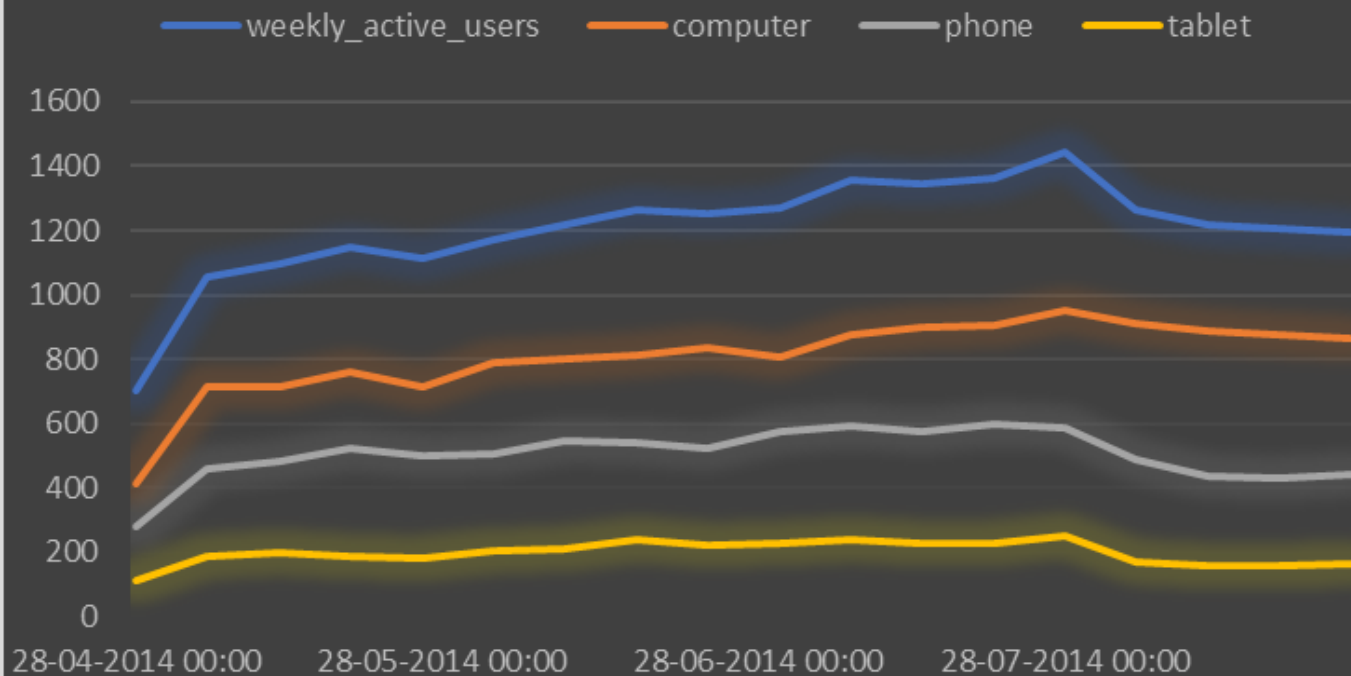
User growth



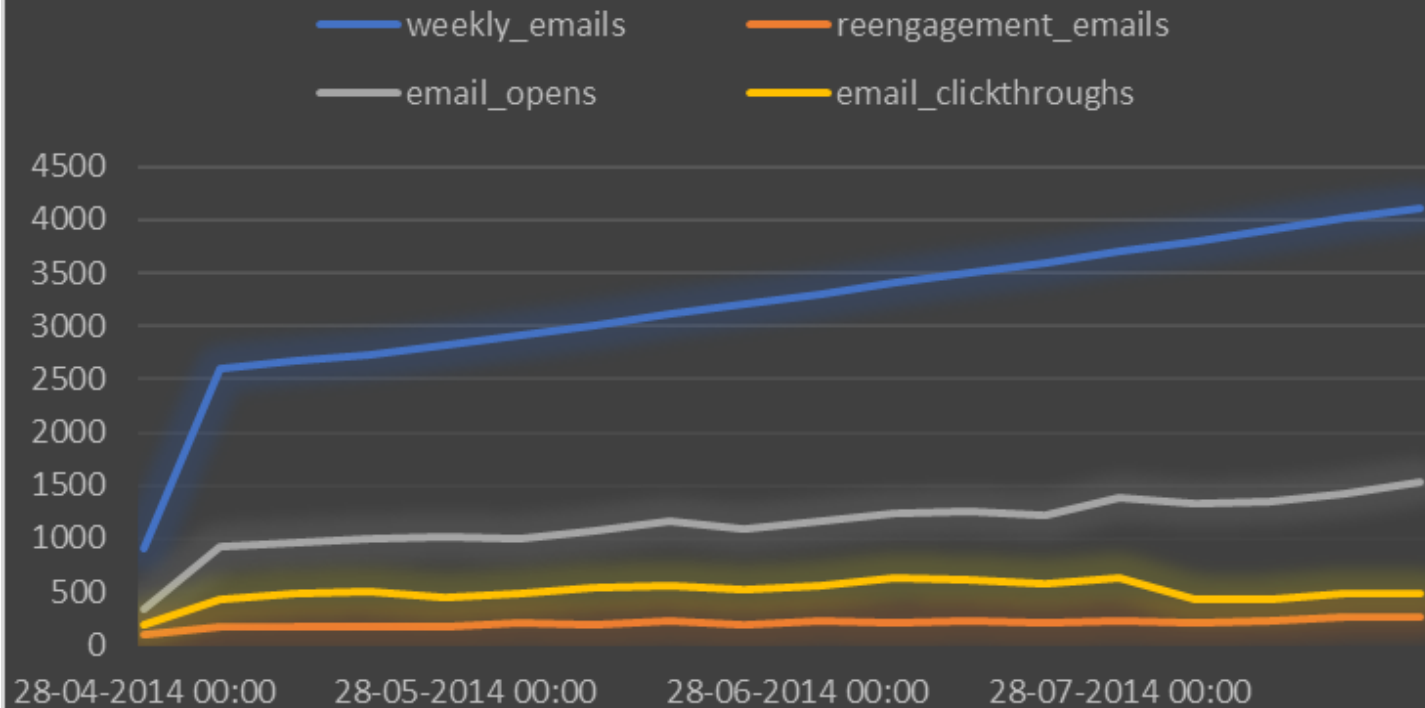
Weekly Retention



Weekly engagement by device



Email engagement



01

INSIGHTS

Insights from the analysis

INSIGHTS

- **User Engagement:** we see a massive spike and a sudden dip during end of July and start of august, there might be a advertisement event causing this.
- **User growth:** Growth rate continues to be high during the week, low on weekends.
- **Weekly retention:** This chart shows a decrease in engagement among users who have signed up more than 10 weeks.
- **Weekly engagement by device:** There is very big drop in phone engagement rates compared to computer and tablet, so there might be an issue with the mobile app of the service that is hindering long term user retention.
- **Email engagement:** Email_opens are on a rise but email_clickthroughs are having a significant drop during late July and early august, so there might be a problem with the content present in the email, company should focus on email content marketing.



THANKS