• CASE STUDY 1

The event is the record of job data for the month of November of different actors, who spoke different languages and the decision on their job interviews that whether it is skip/transfer or left to take decision on it.

Used MySQL for performing operations on this Case Study

ANS- A

    USE JOB;

    select ds,ROUND(1.0*COUNT(job_id)*3600/sum(time_spent),2) as Throughput
    from job_data
    where EVENT in ('transfer','decision') and
            ds between '2020-11-01' and '2020-11-30'
    group by ds

ANS- B
        Will be considering the language for selecting the average throughput of the 7 days. I would prefer daily metrics because the data for each day is changing with different candidates for the job.

ANS- C
        select language , count(*) * 100.0 / sum(count(*)) over() as percentage
         from job_data
         group by language

ANS- D
            SELECT *,COUNT(*)
            FROM job_data
            HAVING COUNT(*) > 1

• CASE STUDY 2

The data is the record for the Users account and their Details , the various activities in which they were engaged or participated and last table contains data specifically related to the Sending of Emails.

Used Microsoft Excel for performing operations on this Case Study.
QA.)
Weekly User Engagement of the Users is defined by taking all the data in the Table in MS Excel and inserting a Pivot Table with it. Now we can select 'Months' and 'Occurred at' under 'Rows' and Count of Event type under Values. From there we can get the weekly user engagement.

QB.)
User Growth for product can be seen by the same above procedure because the Increase in User Engagement tells us the growth for product by the users. Here to calculate the user growth we can additionally see the increase in number of counts in the user engagement per month or weekly basis, that count will tell us about the User Growth for Product.

QC.)
From the Data in the table 2, we can create a Pivot table, where event_type will be under Columns, Months and event_name under Rows and 'count of event_name' under values. Now this data will represent the User-SignUp metrics.

QD.)

For calculating the Weekly Engagement per Device, we can create a Pivot table from the given data, where we will select Event_type as Filters, Device under Rows, Months under Columns and lastly 'count of Occurred_at' under Values. This will give us the Weekly Engagement per device data in our MS Excel Sheet. QE.)For calculating the E-Mail Engagement Metrics from the table 3, we can create a pivot table from the given data in table 3, and then after we can put Months under Rows, action under columns and 'count of occurred_at' under Values. This will give us the different email activities like, sent_weekly_digest, email_open, email_clickthrough, etc , that will further tell us how the 'email engagement' works among the users

Given the link of Excel Sheets showing the operations performed on these case studies to obtain the solutions. ->

https://drive.google.com/drive/folders/1kFCauWmk-NBcrCwN-Jp5G9K4FuZrY_D-?usp=sharing