**SQL Practice questions - Part 2**

Orders table description:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| date | amount | **order\_id** | order\_type | seller\_id | buyer\_id | is\_FTB | is\_FTS | FTB\_created\_at | gig\_id | platform | category\_id | SC\_id | is\_tip |

* **date [timestamp]:** The date when the order was **created**
* **amount [float]:** the amount of the order
* **order\_id [integer]:** the order\_id [This is the key of this table]
* **order\_type [string]:** we have two types of orders:
  + ‘gig’ - regular order from purchasing the gig as is
  + ‘custom\_offer’ - order that was customized specifically to the buyer
* **seller\_id [integer]:** the unique id of the seller
* **buyer\_id [integer]:** the unique id of the buyer
* **is\_FTB [integer]:** FTB meaning is a First Time Buyer. If 1 then the order is the first order ever for the buyer. 0 otherwise
* **is\_FTS [integer]:** FTS meaning is a First Time Seller. If 1 then the order is the first order ever for the seller. 0 otherwise.
* **FTB\_createt\_at [timestamp]:** The timestamp of the buyer’s first order ever
* **gig\_id [integer]:** The gigs that was purchase in the order
* **platform [string]:** The platform (web, mobile\_web, app) where the order was made
* **category\_id [integer]:** the category identifier `
* **SC\_id [integer]:** The Sub Category identifier. Each category have several sub categories under it
* **Is\_tip [integer]:** a tip given to the seller by the buyer is also registered in the database as an order. This field indicating if the order was a tip

Users registration table description:

|  |  |  |
| --- | --- | --- |
| **User\_id** | registration\_created\_at | country |

* **User\_id [integer]:** The user\_id [This is the key of this table]
* **registration created\_at [timestamp]:** The registration timestamp
* **country [string]:** The country of the user

**Part 2:**Here is a description of another table

Orders\_events table description:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| created\_at | **order\_id** | **type** | is\_late | Is\_auto\_compete | platform |

* **created\_at [timestamp]:** The timestamp when status (type) happened
* **order\_id [integer]:** The order\_id [This is one of 2 keys of this table]
* **type [string]:** The action on the order [This is the second key of this table].  
  Relevant values (for columns type):
  + **order.success**  - action indicating that the order was created
  + **requirement.submitted** - action indicating that requirement submitted by the buyer
  + **order.delivered**- the order was delivered by the buyer
  + **delivery.rejected** - the buyer rejected the delivery and asked the seller to fix the delivery
  + **delivery.accepted** - the buyer accepted the delivery
  + **order.completed** - the order was completed and finished (happens immediately when the buyer accepting the delivery)
  + **order.canceled** - the order was canceled. Can happen at any time and can be initiated by the buyer or the seller
  + **order.mutual\_cancellation\_requested\_by\_seller -** seller asked the buyer to to cancel the order via resolution center (buyer can agree or not)
  + **order.mutual\_cancellation\_requested\_by\_buyer -** buyer asked the seller to to cancel the order via resolution center (seller can agree or not)
* **is\_late [bool]:** This attribute will be sent on the first *order\_delivered* event, The value will be *True* if the first delivery was sent after the order original due date. This value will be duplicated for every event after the first *order\_delivered* event.
* **Is\_auto\_compete [bool]:** if the buyer didn’t respond 72 hours after he got a delivery then the order will complete automatically. In this case is Is\_auto\_compete will get the value True else False
* **platform [string] -** The platform (web, mobile\_web, app) where each event happened

**NOTE: we have only 2 final statuses possible for an order; order\_completed, order\_canceled. Orders that do not have this status are still in progress.   
Notice that *order can have more than 1 finish status* for example it can be completed but then cancel via resolution center or customer support**

**Questions part - 2:**

1. Show a daily trend line from 2021 that shows the 7 days SPB (Spend per Buyer) .

Each day should show the SPB for the following 7 days. E.g - The value on Jan 1st should include the revenue till Jan 7th)

1. For FTBs only - what is the 7 days retention rate for Sep 2021 by order type.
2. What is the % of late orders for completed and canceled final status.
3. What is % of delivery’s rejection per price bucket (please create 5 price buckets accordingly 5, 5-15, 15-50, 50-100, >100] and notice that because of taxes the order about is a continuance value)
4. What is the average total\_duration (in hours) of an order per category. Please ignore orders that were not finished
5. For orders with ASP greater than 50$ that were finished please find the average number of deliveries per order by finish status *(order.completed / order.canceled*). Every time the seller send something to the buyer it creates*order\_delivered*event in our table
6. What is the distribution of the finish (order.completed, order.cancel) platform for each started platform?   
   Please present the results like this:

|  |  |  |  |
| --- | --- | --- | --- |
| Start platform \ finish platform | web | Mobile web | app |
| web | 0.8 | 0.02 | 0.18 |
| Mobile web | 0.5 | 0.3 | 0.2 |
| app | 0.7 | 0.05 | 0.25 |

1. Out of all orders with cancellation requests (from buyer or seller) what is the percent of order that was **finished** (please also break to finish and complete) **and didn’t finish**.  
   Note - Please do not take orders in progress. For that please assume that each order that 7 days didn’t pass from creation (order.success) is still in progress. In other words please remove from all orders that didn’t have finish status within 7 days from creation