

Copy of Getting Start...

Count Rows :

Display Table

Report Builder
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DATA
Count Rows
Display Table
New chart

RunLimit 100FormatView history

```
1 --question 1) We are running an experiment at an item-level, which means all users who visit will see the same page, but the layout of different item pages may differ.
2 --Compare this table to the assignment events we captured for user_level_testing.
3 --Does this table have everything you need to compute metrics like 30-day view-binary?
4
5
6 SELECT
7   *
8 FROM
9   dsv1069.final_assignments_qa
10
11 --ANSWER: No, we need the date and time of assignment to compute metrics like 30-day view-binary!
```

Window Snip

Ready

Data	Fields	Source						
	item_id	test_a	test_b	test_c	test_d	test_e	test_f	
1	2512	1	0	1	1	0	1	
2	482	0	1	1	1	0	0	
3	2446	0	1	1	0	1	0	
4	1312	0	0	0	0	0	1	
5	3556	1	1	0	1	0	0	
6	131	0	0	0	0	1	1	
7	1178	1	0	1	0	1	1	
8	110	0	1	1	1	1	0	
9	47	0	0	1	0	1	1	
10	1696	0	0	1	1	1	1	
11	3196	0	0	0	1	0	1	
12	1578	1	0	0	1	0	1	
13	0	1	0	1	1	0	0	
14	107	0	1	0	1	1	1	
15	487	0	0	1	0	1	1	

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Showing rows 1-100 of 2,198 Columns 7 Size 123KB Run a few seconds ago Executed in 594ms

Mode Public Warehouse (everyone)
Search this Connection...
dsv1069.users
dsv1069.final_assignments_qa
tutorial
aapl_historical_stock_price
accounts
animal_crossing_achievements
animal_crossing_art
animal_crossing_bags
animal_crossing_bottoms
animal_crossing_construction
animal_crossing_dress_up
animal_crossing_fencing
animal_crossing_fish
animal_crossing_floors
animal_crossing_fossils
animal_crossing_headwear
animal_crossing_housewares
animal_crossing_insects
animal_crossing_miscellaneous
animal_crossing_music
animal_crossing_other
animal_crossing_photos
animal_crossing_posters
animal_crossing_recipes
animal_crossing_rugs
animal_crossing_shoes
animal_crossing_tools
animal_crossing_tops
animal_crossing_umbrellas
animal_crossing_villagers
animal_crossing_wall_mounted
animal_crossing_wallpaper
animal_crossing_accessories
billboard_top_100_year_end
city_populations

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David

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Count Rows

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Run

Limit 100

Format

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DATA

Count Rows

Display Table

New chart

--question 2) Reformat the final_assignments_qa to look like the final_assignments table, filling in any missing values with a placeholder of the appropriate data type.

SELECT item_id,
test_a AS test_assignment,
'test_a' AS test_number,
CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
test_b AS test_assignment,
'test_b' AS test_number,
CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
test_c AS test_assignment,
'test_c' AS test_number,
CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
test_d AS test_assignment,

Mode Public Warehouse (everyone)

Search this Connection...

dsv1069.users

dsv1069.final_assignments_qa

There are no tables to display

Data

Fields

Source

Export

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	item_id	test_assignment	test_number	dummy_test_start_date
1	2512	1 test_a	2020-01-01 00:00:00	
2	482	0 test_a	2020-01-01 00:00:00	
3	2446	0 test_a	2020-01-01 00:00:00	
4	1312	0 test_a	2020-01-01 00:00:00	
5	3556	1 test_a	2020-01-01 00:00:00	
6	131	0 test_a	2020-01-01 00:00:00	
7	1178	1 test_a	2020-01-01 00:00:00	
8	110	0 test_a	2020-01-01 00:00:00	
9	47	0 test_a	2020-01-01 00:00:00	
10	1696	0 test_a	2020-01-01 00:00:00	
11	3196	0 test_a	2020-01-01 00:00:00	
12	1578	1 test_a	2020-01-01 00:00:00	
13	0	1 test_a	2020-01-01 00:00:00	
14	107	0 test_a	2020-01-01 00:00:00	
15	487	0 test_a	2020-01-01 00:00:00	

Showing rows 1-100 of 13,188 Columns 4 Size 396KB Run a few seconds ago Executed in 674ms

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Count Rows

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DATA

Count Rows

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New chart

1

-- question 3) Use this table to

2

-- compute order_binary for the 30 day window after the test_start_date

3

-- for the test named item_test_2

4

5

SELECT order_binary.test_assignment,

6

COUNT(DISTINCT order_binary.item_id) AS num_orders,

7

SUM(order_binary.orders_bin_30d) AS sum_orders_bin_30d

8

FROM

9

(SELECT assignments.item_id,

10

assignments.test_assignment,

11

MAX(CASE

12

WHEN (DATE(orders.created_at)-DATE(assignments.test_start_date)) BETWEEN 1 AND 30 THEN 1

13

ELSE 0

14

END) AS orders_bin_30d

15

FROM dsv1069.final_assignments AS assignments

16

LEFT JOIN dsv1069.orders AS orders

17

ON assignments.item_id=orders.item_id

18

WHERE assignments.test_number='item_test_2'

19

GROUP BY assignments.item_id,

20

assignments.test_assignment) AS order_binary

21

GROUP BY order_binary.test_assignment

Succeeded

Data

Fields

Source

test_assignment

num_orders

sum_orders_bin_30d

1

0

1130

331

2

1

1068

306

Page 1 of 1

Showing rows 1-2 of 2

Columns 3

Size 48B

Run a few seconds ago

Executed in 671ms

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Search this Connection...

dsv1069.users

dsv1069.final_assignments_qa

dsv1069.final_assignments

dsv1069.orders

There are no tables to display

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Count RowsDisplay Table

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DATA

Count RowsDisplay TableNew chart

RunLimit 100FormatView history

```
1 -- question 4) Use this table to
2 -- compute view_binary for the 30 day window after the test_start_date
3 -- for the test named item_test_2
4
5 SELECT view_binary.test_assignment,
6       COUNT(DISTINCT view_binary.item_id) AS num_views,
7       SUM(view_binary.view_bin_30d) AS sum_view_bin_30d,
8       AVG(view_binary.view_bin_30d) AS avg_view_bin_30d
9 FROM
10 (SELECT assignments.item_id,
11      assignments.test_assignment,
12      MAX(CASE
13          WHEN (DATE(views.event_time)-DATE(assignments.test_start_date)) BETWEEN 1 AND 30 THEN 1
14          ELSE 0
15      END) AS view_bin_30d
16 FROM dsv1069.final_assignments AS assignments
17 LEFT JOIN dsv1069.view_item_events AS views
18 ON assignments.item_id=views.item_id
19 WHERE assignments.test_number='item_test_2'
20 GROUP BY assignments.item_id,
21          assignments.test_assignment
22 ORDER BY item_id) AS view_binary
```

Succeeded

DataFieldsSource

	test_assignment	num_views	sum_view_bin_30d	avg_view_bin_30d
1	0	1130	915	0.8097
2	1	1068	881	0.8249

Page 1 of 1

Showing rows 1-2 of 2Columns 4Size 80BRun a few seconds agoExecuted in 741ms

Mode Public Warehouse (everyone)

Search this Connection...

dsv1069.users

dsv1069.final_assignments_qa

dsv1069.final_assignments


dsv1069.orders

dsv1069.view_item_events


There are no tables to display

 Run☐ Limit 100

Format

 View history

```
1 --question 5) Use the https://thumbtack.github.io/abba/demo/abba.html to compute the lifts in metrics and the p-values for the binary metrics ( 30 day order binary and 30 day view binary) using a interval
2 -- 95% confidence.
3 --For orders_bin: lift is -15% - 11% (-2.2%) and pval is 0.74
4 --For views_bin: lift is and pval is -2.1% - 5.9% (1.9%) and pval is 0.36
5 --Therefore for item_test_2, there was no significant difference in either the number of views or the number of orders between control and experiment
6
```

 Ready

CODE:

QUESTION1)

--We are running an experiment at an item-level, which means all users who visit will see the same page, but the layout of different item pages may differ.

--Compare this table to the assignment events we captured for user_level_testing.

--Does this table have everything you need to compute metrics like 30-day view-binary?

SELECT

*

FROM

dsv1069.final_assignments_qa

--ANSWER: No, we need the date and time of assignment to compute metrics like 30-day view-binary!

QUESTION2)

--Reformat the final_assignments_qa to look like the final_assignments table, filling in any missing values with a placeholder of the appropriate data type.

```
SELECT item_id,  
       test_a AS test_assignment,  
       'test_a' AS test_number,  
       CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date  
FROM dsv1069.final_assignments_qa  
UNION ALL  
SELECT item_id,  
       test_b AS test_assignment,  
       'test_b' AS test_number,  
       CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date  
FROM dsv1069.final_assignments_qa  
UNION ALL  
SELECT item_id,  
       test_c AS test_assignment,  
       'test_c' AS test_number,
```

```
        CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
       test_d AS test_assignment,
       'test_d' AS test_number,
       CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
       test_e AS test_assignment,
       'test_e' AS test_number,
       CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
FROM dsv1069.final_assignments_qa
UNION ALL
SELECT item_id,
       test_f AS test_assignment,
       'test_f' AS test_number,
       CAST('2020-01-01 00:00:00' AS timestamp) AS dummy_test_start_date
```



```
FROM dsv1069.final_assignments_qa
```

QUESTION 3)

```
-- Use this table to
```

```
-- compute order_binary for the 30 day window after the test_start_date
```

```
-- for the test named item_test_2
```

```
SELECT order_binary.test_assignment,
```

```
       COUNT(DISTINCT order_binary.item_id) AS num_orders,
```

```
       SUM(order_binary.orders_bin_30d) AS sum_orders_bin_30d
```

```
FROM
```

```
(SELECT assignments.item_id,
```

```
       assignments.test_assignment,
```

```
       MAX(CASE
```

```
           WHEN (DATE(orders.created_at)-DATE(assignments.test_start_date)) BETWEEN 1 AND 30 THEN 1
```

```
           ELSE 0
```

```
       END) AS orders_bin_30d
```

```
FROM dsv1069.final_assignments AS assignments
```

```
LEFT JOIN dsv1069.orders AS orders
```

```
ON assignments.item_id=orders.item_id
WHERE assignments.test_number='item_test_2'
GROUP BY assignments.item_id,
        assignments.test_assignment) AS order_binary
GROUP BY order_binary.test_assignment
```

QUESTION 4)

```
-- Use this table to
-- compute view_binary for the 30 day window after the test_start_date
-- for the test named item_test_2
```

```
SELECT view_binary.test_assignment,
        COUNT(DISTINCT view_binary.item_id) AS num_views,
        SUM(view_binary.view_bin_30d) AS sum_view_bin_30d,
        AVG(view_binary.view_bin_30d) AS avg_view_bin_30d
FROM
        (SELECT assignments.item_id,
                assignments.test_assignment,
                MAX(CASE
```

```
        WHEN (DATE(views.event_time)-DATE(assignments.test_start_date)) BETWEEN 1 AND 30 THEN 1
        ELSE 0
    END) AS view_bin_30d
FROM dsv1069.final_assignments AS assignments
LEFT JOIN dsv1069.view_item_events AS views
    ON assignments.item_id=views.item_id
WHERE assignments.test_number='item_test_2'
GROUP BY assignments.item_id,
        assignments.test_assignment
ORDER BY item_id) AS view_binary
GROUP BY view_binary.test_assignment
```