

Final Assignment_AB Testing

1. Data Quality Check

| | item_id | test_a | test_b | test_c | test_d | test_e | test_f |
|---|---------|--------|--------|--------|--------|--------|--------|
| | 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 | 1212 | 0 | 0 | 0 | 0 | 0 | 1 |

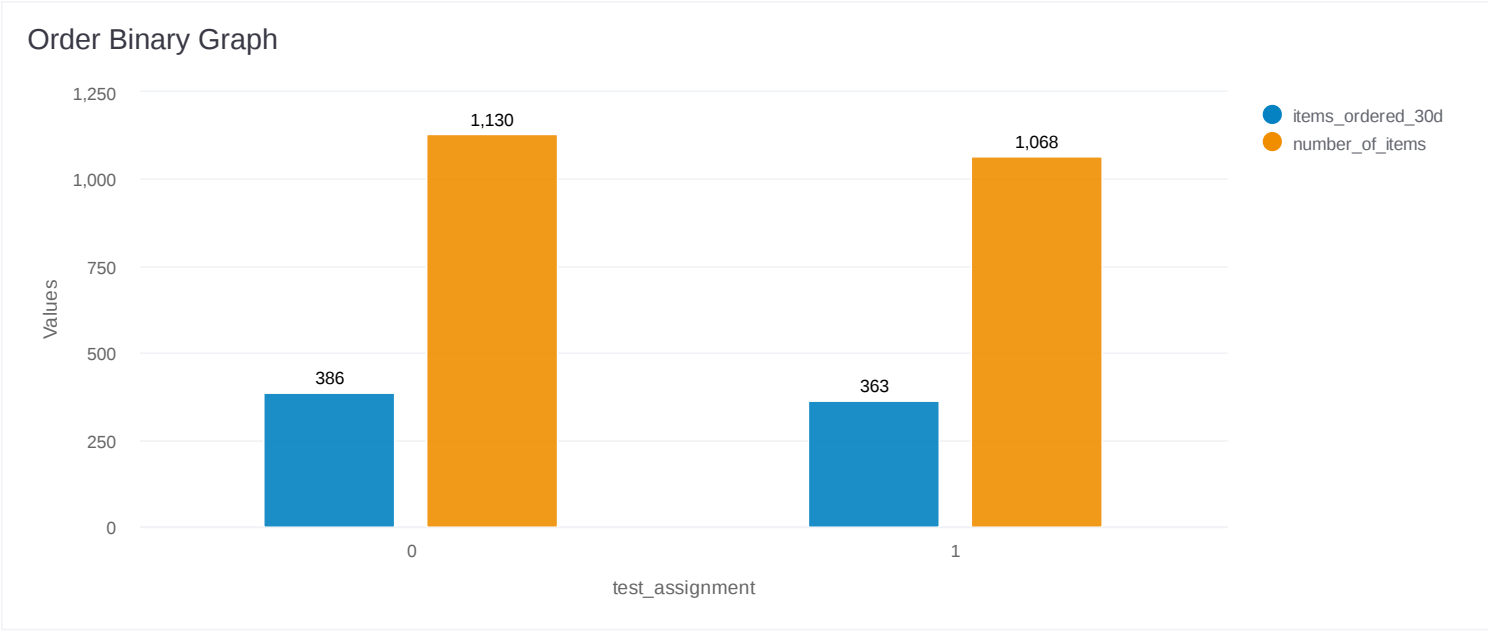
ANSWER:
Answer is No, the 'created_at' date is needed

2. Reformat the Data

| | item_id | test_assignment | test_number | test_created_at |
|---|---------|-----------------|-------------|---------------------|
| | item_id | test_assignment | test_number | test_created_at |
| 1 | 3572 | 1 | test_a | 2013-01-05 00:00:00 |
| 2 | 1090 | 0 | test_a | 2013-01-05 00:00:00 |
| 3 | 761 | 1 | test_a | 2013-01-05 00:00:00 |
| 4 | 2075 | 1 | test_a | 2013-01-05 00:00:00 |

3. Compute Order Binary

| | test_assignment | number_of_items | items_ordered_30d |
|---|-----------------|-----------------|-------------------|
| | test_assignment | number_of_items | items_ordered_30d |
| 1 | 0 | 1130 | 386 |
| 2 | 1 | 1068 | 363 |



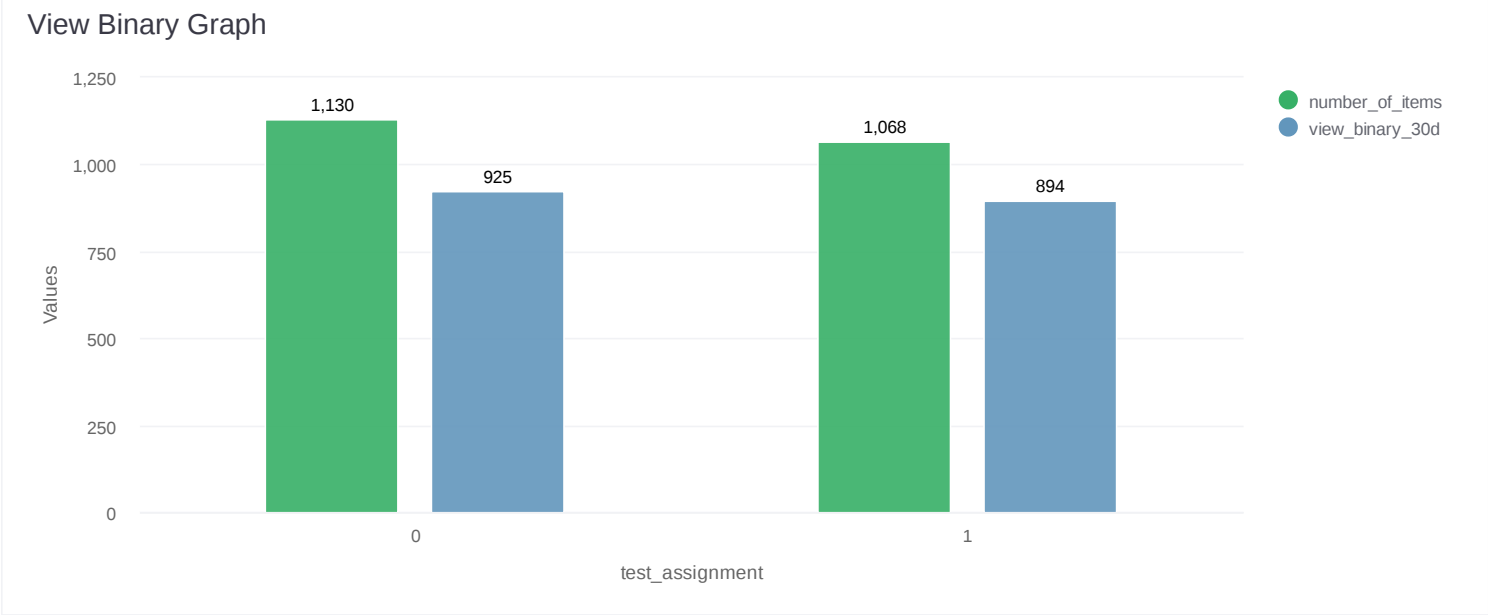
4. Compute View Item Metrics

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| | item_id | test_assignment | test_number | view_binary |
|---|---------|-----------------|-------------|-------------|
| | item_id | test_assignment | test_number | view_binary |
| 1 | 0 | 0 | item_test_2 | 1 |
| 2 | 1 | 1 | item_test_2 | 1 |
| 3 | 2 | 1 | item_test_2 | 1 |

5. Compute lift and p-value

| | test_assignment | test_number | number_of_items | view_binary_30d |
|---|-----------------|-------------|-----------------|-----------------|
| 1 | 0 | item_test_2 | 1130 | 925 |
| 2 | 1 | item_test_2 | 1068 | 894 |



After calculating on ABBA Testing Statistics:
OrderBin: Improvement is -12% - 11% (-0.5%) and pval is 0.93
ViewsBin: Improvement is -1.6% - 6.1% (2.3%) and pval is 2.3%
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