

TIKI MARKETPLACE TEST

For Data Analyst


TIKI Marketplace Data Analyst Test

Test Overview and Instructions

This test assesses your ability to solve business problems using deductive, inductive, and quantitative reasoning and also your SQL skills. The test contains 3 parts: SQL, Logical & Problem Solving and Case Study. It is designed to finish in 3 days, yet we expect you could get back to us as soon as you can.

Data is provided to answer, yet if you find something not provided yet reasonable to know, please make assumption and use it to solve questions while competing this test. Some questions will require you to make up data on your own.

Please provide your answers in written format in pdf/PowerPoint (pdf & .pptx)



PART I: SQL

SQL

Question 1:

Given three following columns in table X:

Seller ID	Category	Sales (Millions VND)
1	Book	258
2	Electronics	299
3	Electronics	123
4	Book	272
5	FMCG	485
6	Book	187
7	FMCG	349
8	FMCG	61
9	Electronics	321
10	FMCG	20

a. Write a SQL query to find the best seller by each category. Expected result:

Seller ID	Category	Sales (Millions VND)
4	Book	272
9	Electronics	321
5	FMCG	485

PART I: SQL

b. Given three following columns in table Y:

Award Year	Award	Seller ID
2017	Best Seller	9
2018	Best Seller	5
2017	Best Operations	5
2018	Best Quality	10
2018	Best Operations	6
2017	Best Seller	4
2017	Best Operations	5
2017	Best Quality	7
2017	Best Quality	10

Write a SQL query to find of 3 best sellers in (a), how many award did they received in 2017. Expected Result:

Seller ID	Category	Award In 2017
4	Book	1
9	Electronics	1
5	FMCG	2

PART I: SQL

Question 2:

You have one sample dataset attached to this test:

- product_history.csv: records of product's status & stock changes from May – October 2018.

Dimension	Definition
Date	Log Date
Product ID	Unique ID for each product
Product Status	Status of a product: + ON: Available for Sales + OFF: Unavailable for Sales
Stock	Total stock of a product at specific log date

- Write a SQL query to find the number of product that were available for sales at the end of each month.
- Average stock is calculated as: Total stock in a month/ total date in a month. Write a SQL query to find Product ID with the most “average stock” by month.

Logical & Problem Solving

Question 1:

A Seller wants to sell cosmetics on Tiki.vn. However, he concerns about the total volume he would make via Tiki.vn. Supposed you have accessed to Tiki's data warehouse (sales record, items record...), how do you estimate the total sales he is going to have via selling on Tiki.vn? Feel free to make assumptions in the answer.

Case Study

Question 1:

Please refer to the sample dataset tiki_test.csv attached.

Case Study Overview:

Dimension	Definition
Seller ID	Unique ID for each seller
Seller's Vertical	Seller's main selling category
Sign-up Time	Time seller signing up on Tiki.vn
Activation Time	Time that seller's registration was approved by Tiki team
1st Listing	1st time seller uploading their product's image & content on Tiki.vn
1st Salable	1st time seller's product were available for sales
1st Transaction	1 st time seller having 1st transaction

A standard Seller on Tiki usually go through these below stages:

- Sign-up -> Seller's Account Activated by Tiki Team -> Listing Product -> Stocking to make product(s) available for sales -> Having transaction

Based on the data file provided, please tell us what is going on with Tiki's Marketplace. How was it performed? What are your recommendations to make it better? For this section, your tasks are cleaning, processing, aggregating and visualizing the outputs of one classifier to draw conclusions about its performance. You can choose whatever language/tool you prefer to perform. Please present your analysis on slide summary (pptx).