

Dear Data Analyst,

On behalf of all of us at BuyBuy, I am excited to welcome you to the team. We are a crew of passionate professionals who find delight in satisfying our customer's every need. We are known globally for delivering a high level of customer experience - this often involves predicting new products that our customers would absolutely need and love to have.

As you may already know, BuyBuy is an e-commerce platform that offers a wide range of products to our loyal customers. In the role of Data Analyst on the BuyBuy team, you are considered the '*Commander-In-Chief*' of all-things-data and we look forward to the amazing contributions you will bring to improve our offerings.

As a welcome gift, I have prepared the following tasks for you to complete and submit your report on. You'll report your process and insights from the following analysis. It may please you to know that your report will help inform management's decision on the next phase of our plans to improve the company's product offerings to our customers. Therefore, you must ensure that you do your work in the best way possible.

Complete the following tasks using only SQL and any spreadsheet package (Google Sheets/Microsoft Excel) of your choice:

1. Time-Profit Analysis

- a. *Write a query that returns the total profit made by BuyBuy from 1Q11 to 4Q16 (all quarters of every year).*
- b. *Write queries that return the total profit made by BuyBuy in Q2 of every year from 2011 to 2016.*
- c. *Write a query that returns the annual profit made by BuyBuy from the year 2011 to 2016.*
- d. *Create a chart to visualize the data from your analysis in 1(b).*

Hint 1: use the Revenue and Cost data to find Profit.

Hint 2: "...of all-time" means from 2011 to 2016.

2. Region-Profit Analysis

- a. *Write 2 queries that return the countries where BuyBuy has made the most profit and also the least profit of all-time. Your query must display both results on the same output.*
- b. *Write a query that shows the Top-10 most profitable countries for BuyBuy sales operations from 2011 to 2016*
- c. *Write a query that shows the all-time Top-10 least profitable countries for BuyBuy sales operations.*

d. *Create a chart to visualize your analysis in 2(b)*

3. Product-Revenue Analysis

- a. *Write a query that ranks all product categories sold by Buybuy, from least amount to the most amount of all-time revenue generated.*
- b. *Write a query that returns Top-2 product categories offered by Buybuy with an all-time high number of units sold.*
- c. *Write a query that shows the Top 10 highest-grossing products sold by BuyBuy based on all-time profits.*
- d. *Create a chart to visualize your analysis in 3(b)*

Remember, in order to complete this task, you'll need to accomplish the following:

- Prepare a PDF report that summarizes the above analysis.
- In no less than 200 words, use insights derived from your analysis to advise Buybuy's Board of Directors on where you think the company should focus its resources.
- Attach the PDF report in your response to this mail.

Bear in mind, the deadline for submission of your report is by C.O.B on Tuesday - June 23rd, 2020. We are all counting on you.

Once again, welcome to the team.

Regards,

Abdulquadri Aliyu

Snr. Growth Analyst | BuyBuy

P.S: You'll find every resource you need has been attached to this email - including Buybuy's sales data (2011 - 2016) and upload codes (if you choose to COPY your data into SQL).