### SQL

*++ The answer for each question is a T-SQL script that should run correctly assuming there is a database that has the same tables provided in the Excel file with the same structure/schema. If you want to be sure it is working properly you can create such a database on your side but no need to submit it.*

*++ Please submit all scripts in one .sql file. Use comments to specify which script belongs to which answer. Also use comments to provide the final answer for each query.*

1. We need a table to show the Fail Rate per Talabat week, sorted by talabat week.
2. How many customers churned in December (i.e. ordered in November and did not in December)? Segment those churned customers into 4 groups: “Frequent & Consistent”, “Frequent”, “Consistent”, “Neither”. *Frequent* customers are the ones that placed at least 12 orders in total from Sep to Nov. *Consistent* customers are the ones who did not miss a month without placing at least 1 order (apart from Dec, because this is when they churned).
3. We want to track if our customers pay more with each new order. For this, we need to know: In how many orders did the customer pay more than their previous order? Ignore each customer's first order since we cannot know if it was more than the previous one. Please also write down the resulting number in a comment below your query.
4. We need to calculate the MTD (Month-To-Date) active customers for every day. This means for every day of the month, we need to know how many customers placed successful orders throughout that month until this day (accumulative). For instance, if in day 1 of the month, 200 customers placed successful orders, that value will be 200 for day 1. Then the next day (day 2) 250 customers placed successful orders, of which 150 already ordered in day 1, then the value for day 2 is 300 (which is the total count of customers that ordered in that month up to day 2).**This value for the last day of each month will basically reflect all customers that placed successful orders during this month**. Output is 2 columns: date, MTD customers. What month has the highest MTD active customers by day 16? How many?
5. We need to do the same MTD calculation but for % of retained customers. A retained customer is one who placed at least one successful order last month, and then showed up again with at least one successful order in the current month. Retention Rate % = customers who placed successful orders this month and the month before, divided by all the customers that placed successful orders last month. We need to calculate the MTD retention rate for every day of the provided dataset. Output is 2 columns: date, MTD Retention Rate%. What month has the highest MTD Retention Rate by day 25? How many?