Section – A: Theory Questions

1. **What is aggregation and how can it help for large databases?**
2. **How do you find the count of distinct values for a column, and the count of columns containing null values in SQL?**
3. **What is the difference between "COUNT(\*)" and "COUNT(column)" in SQL?**
4. **What is the flow of the execution of aggregation?**
5. **Draw a pictorial representation of grouped customers who placed the orders**

For example, the data present in the below table named "Orders"

| order\_id | order\_name | price | customer\_id |
| --- | --- | --- | --- |
| 1 | "Pizza" | 3.34 | 5 |
| 2 | "Burger" | 12.5 | 1 |
| 3 | "Noodles" | 6.6 | 1 |
| 4 | "Hot-Dog" | 2.28 | 3 |
| 5 | "Fried Rice" | 5.12 | 3 |
| 6 | "Chicken 65" | 15.2 | 4 |
| 7 | "Sch.Soup" | 1.04 | 4 |
| 8 | "Manchuria" | 5.28 | 3 |
| 9 | "Dumplings" | 4.52 | 2 |

1. filter each customers based on customer\_id and show order\_name and price

2. find min, max, count, avg, sum of prices in the orders table (group customers based on customer\_id)

1. **What is the average formula and write an sql query to find the average of column "price"**
2. **What is the purpose of having instead of where clause in sql?**

Section – B: Practice Exercises

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# Dataset Used: Video Games.csv

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1. **Find the unique genre in video\_games table and sort by alphabetic order**
2. **How many individual platform present in video\_games table**
3. **Calculate sum the global\_sales for individual platform and round up to 2 decimals in video\_games table**
4. **Find the average global\_sales for individual platform and round up to 2 decimals in video\_games table**
5. **Find the maximum global\_sales for individual platform in video\_games table**
6. **Find the minimum global\_sales for individual platform in video\_games table**
7. **Find the application name released in between 2019 and 2020 year\_of\_release in video\_games table**
8. **Find the null values in the video\_games table**
9. **Find the sum critic\_score for each publisher and check if any null values replace with “0” in video\_games table**
10. **Display the name along with publisher of the top 5 Games with highest Critic Score.**
11. **Find the total user\_count on every year\_of\_release and filter null values and check if any null values replace with "unknown year" in video\_games table**