**Access Total Query Highlights/Key Points with Examples**

Studying this closely can earn you 5-10 points in Exam 1

Dr. Yue “Jeff” Zhang, Version 2, September 26, 2017

Using the Restaurants table in the Restaurants database as example:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Field and Data Type** | **Suitable Total Query Function** | **Notes** | **Interpretation** |
|  |  |  |  |
| 1 | COUNT | Unique-valued field | # rows in group |
| 2 | COUNT | Unique-valued field | # rows in group |
| 3 | GROUP BY, COUNT | For grouping |  |
| 4 | GROUP BY, COUNT | For grouping |  |
| 5 | GROUP BY, COUNT | For grouping |  |
| 6 | COUNT | Unique-valued field | # rows in group |
| 7 | AVG/SUM/MIN/MAXStDev | Num; Unique-val | Av/sum/min in group |
| 8 | AVG/SUM/MIN/MAXStDev | Num; Unique-val | Av/sum/min in group |
| 9 | AVG, MIN, MAX | Date; Unique-val | Av/sum/min in group |
| 10 | GROUP BY, COUNT | For grouping |  |
| 11 | GROUP BY, COUNT | For grouping |  |
| 12 | GROUP BY, COUNT | For grouping |  |
| 13 | GROUP BY, COUNT | For grouping |  |
| 14 | GROUP BY, COUNT | For grouping |  |

More examples applicable to other scenarios –

1. SALES (StoreID, SalesAmount, Quarter, Region, …)
2. STUDENT (SID, LName, FName, DOB, Major, GPA, FacAdvisor, …)
3. RESTAURANT (RID, Address, City, AnnualSales, SqFt, DateOpened, FranchidseeID, TypeOfService…)
4. PURCHASE (CustID, Date, ProductID, UnitPrice, Quantity, …)
5. SHIPMENT (ShipmtID, ProductID, Vendor, Destination, Cost…)

Possible application of Total Query Functions. Try to interpret EACH of the above cells.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Scenario** | **Group By** | **COUNT** | **SUM** | **AVG** | **MIN/MAX** |
| 1 | SALES | Region,  Quarter | StoreID | SalesAmount | SalesAmount | SalesAmount |
| 2 | STUDENT | Major, FacAdvisor | SID |  | GPA, DOB | GPA, DOB |
| 3 | RESTAU-RANT | City, Type, FranchiseeID | RID | AnnualSales, SqFt | AnnualSales, SqFt | AnnualSales, SqFt |
| 4 | PURCHASE | CustID,  ProductID | Date, Quantity | Quantity\*  UnitPrice | UnitPrice, Quant\*UPrice | UnitPrice, Date, Quant\*UPrice |
|  | SHIPMENT | PrdID, Vendor, Destination | ShipmtID | Cost | Cost | Cost |
| Observation: | | What type of fields? | What type of fields? | What type of fields? | What type of fields? | What type of fields? |
| **Interpretation /Remarks** | | “In/For each group” | Number of members/items in each group | Total amount /quantity in each group | Avg amount for the group / Avg amt for a typical member in each group | The min/max value of the min/max field in group (“Min GPA in each major”) |