**SQL Multi Row Function**

**Aggregate Functions**

## Part 1 – Basic Usage

1. select max(LAST\_NAME) from CUSTOMERS

2. select avg(MONTHLY\_PAYMENT) from PACKAGES

3. select min(LAST\_NAME) from CUSTOMERS

4. select count(PACK\_ID) from PACKAGES

5. select count(all CUSTOMER\_ID ) from CUSTOMERS

6. select count(distinct STATE) from CUSTOMERS

7. select count(distinct SPEED) from PACKAGES

8. select count(FAX) from CUSTOMERS

9. select count(\*)-count(FAX) from CUSTOMERS

select count(\*) from CUSTOMERS where FAX is null

10. select max(MONTHLY\_DISCOUNT),min(MONTHLY\_DISCOUNT),avg(MONTHLY\_DISCOUNT) from CUSTOMERS

## Part 2 – GROUP BY and HAVING clauses

11. select STATE,count(CUSTOMER\_ID) AS No\_of\_Cust from CUSTOMERS group by STATE

12. select SPEED,avg(MONTHLY\_PAYMENT)AS Avg\_Payment from PACKAGES group by SPEED

13. select STATE,count(distinct CITY)AS No\_Cities from CUSTOMERS group by STATE

14. select SECTOR\_ID,max(MONTHLY\_PAYMENT)AS Highest\_Pay from PACKAGES group by SECTOR\_ID

15. a)select PACK\_ID,avg(MONTHLY\_DISCOUNT) from CUSTOMERS group by PACK\_ID

b) select PACK\_ID,avg(MONTHLY\_DISCOUNT) from CUSTOMERS where PACK\_ID in(22,13)

group by PACK\_ID

16. select SPEED,max(MONTHLY\_PAYMENT),min(MONTHLY\_PAYMENT),avg(MONTHLY\_PAYMENT) from PACKAGES group by SPEED

17.a) select PACK\_ID,count(CUSTOMER\_ID) as No\_Of\_Cust from CUSTOMERS group by PACK\_ID

b) select PACK\_ID,count(CUSTOMER\_ID) as No\_Of\_Cust from CUSTOMERS where MONTHLY\_DISCOUNT>20 group by PACK\_ID

c) select PACK\_ID,count(CUSTOMER\_ID) as No\_Of\_Cust from CUSTOMERS group by PACK\_ID having count(CUSTOMER\_ID)>100

18. select STATE,CITY,count(CUSTOMER\_ID) from CUSTOMERS group by STATE,CITY

19.a) select CITY,avg(MONTHLY\_DISCOUNT) from CUSTOMERS group by CITY

b) select CITY,avg(MONTHLY\_DISCOUNT) from CUSTOMERS where MONTHLY\_DISCOUNT>20 group by CITY

20. a)select STATE,min(MONTHLY\_DISCOUNT) from CUSTOMERS group by STATE

b) select STATE,min(MONTHLY\_DISCOUNT) from CUSTOMERS group by STATE having min(MONTHLY\_DISCOUNT)>10

21. select SPEED,count(PACK\_ID) from PACKAGES group by SPEED having count(PACK\_ID)>8