1. **Functions :** UPPER, LOWER, ABS, ACOS, SIN, GREATEST, LEAST, LN, LOG, LOGIO, LOG2, MOD, CEIL, FLOOR, TRUNCATE, DEGREES, RADIANS, etc.

   DEGREES → Radian to Degree
   EXP → EXP(10) = e^{10}
   GREATEST → GREATEST(1, 2, 3, 4, 5, 6, 7, 8, 9) = 9
   LN → $Log_e()$ = value
   LOG → LN
   LOG10 → $Log_{10}()$ = value, LOG2 → $Log_2()$ = value
   MOD → 10 MOD 3 = 1
   POW → POW(2, 3)
   RADIANS → Degree to Radian
   RAND → Random value(range 0 to 1)
   ROUND → ROUND(135.375, 2) = 135.38
   SQRT → SQRT(9) = 3
   TRUNCATE → TRUNCATE(135.27432453, 2) = 135.27

   Syntax : *Function_Name( )*
   SELECT UPPER("this is a pen) = THIS IS A PEN

2. **Group Functions :** MAX, MIN, COUNT, SUM, AVS ; Because result comes from a group of dataset.

   Syntax :
   SELECT MAX(salary)
   FROM *employees*

   SELECT AVG(salary)
   FROM employees;

3. **GROUP BY :** Divide group-wise / Divide into groups

   SELECT job_id, COUNT(*)
   FROM employees

```
GROUP BY job_id;

SELECT job_id, MAX(salary)
FROM employees
GROUP BY job_id;
```

4. **HAVING :** to implement conditions we need to use HAVING instead of WHERE for a GROUP. Simply Conditions over GROUP BY Function. WHERE works for overall conditions.

   Example :

   ```
   SELECT job_id, COUNT(*)
   FROM employees
   GROUP BY job_id
   HAVING COUNT(*) > 1;  (Job_id have more than 1 elements in a table)
   ```

   Select and group by have to same field names. Any missing will be give error. Group by Primary Key will make group for each entity.

5. **ALTER TABLE :** Alter → Newly Added in database. Example : Sign Up Without hampering existing data, for adding new field/column or info/data we need to use ALTER TABLE.

   Syntax :

   ```
   ALTER TABLE Table_Name
   ADD phone_no CHAR(11)
   ```