CREATE TABLE:

Number	Elapsed	Statement	Feedback	Rows
1	0.01	CREATE TABLE DBMS(DEPT_ID INTEGER, SALARY INTEGER)	Table created.	0
2	0.01	INSERT INTO DBMS VALUES(90,24000)	1 row(s) inserted.	1
3	0.00	INSERT INTO DBMS VALUES(90,17000)	1 row(s) inserted.	1
4	0.00	INSERT INTO DBMS VALUES(90,17000)	1 row(s) inserted.	1
5	0.00	INSERT INTO DBMS VALUES(60,9000)	1 row(s) inserted.	1
6	0.00	INSERT INTO DBMS VALUES(60,6000)	1 row(s) inserted.	1
7	0.00	INSERT INTO DBMS VALUES(60,4200)	1 row(s) inserted.	1
8	0.00	INSERT INTO DBMS VALUES(50,5800)	1 row(s) inserted.	1
9	0.00	INSERT INTO DBMS VALUES(50,3500)	1 row(s) inserted.	1
10	0.00	INSERT INTO DBMS VALUES(50,3100)	1 row(s) inserted.	1
11	0.00	INSERT INTO DBMS VALUES(50,2600)	1 row(s) inserted.	1
12	0.01	SELECT * FROM DBMS	10 rows selected.	10

DEPT_ID	SALARY
90	24000
90	17000
90	17000
60	9000
60	6000
60	4200
50	5800
50	3500
50	3100
50	2600

MAX

```
1   SELECT MAX(SALARY) FROM DBMS;
```

```
SELECT MAX(SALARY) FROM DBMS
```

MAX(SALARY)
24000

Statement processed. 0.00 seconds

MIN

```
1   SELECT MIN(SALARY) FROM DBMS;
```

```
SELECT MIN(SALARY) FROM DBMS
```

MIN(SALARY)
2600

AVG:

```
1   SELECT AVG(SALARY) FROM DBMS;
```

```
SELECT AVG(SALARY) FROM DBMS
```

AVG(SALARY)
9220

COUNT:

```
SELECT COUNT(SALARY) FROM DBMS
```

COUNT(SALARY)
10

SUM:

```
SELECT SUM(SALARY) FROM DBMS
```

SUM(SALARY)
92200

Statement processed. 0.00 seconds

VARIANCE:

```
SELECT VARIANCE(SALARY) FROM DBMS
```

VARIANCE(SALARY)
55646222.22222222222222222222222222222222

GROUP FUNCTION:

```
SELECT ROUND(AVG(SALARY),2) FROM DBMS WHERE DEPT_ID=90
```

ROUND(AVG(SALARY),2)
19333.33

MORE THAN ONE GROUP FUNCTION:

```
SELECT MAX(SALARY),MIN(SALARY),MIN(DEPT_ID) FROM DBMS WHERE DEPT_ID=60
```

MAX(SALARY)	MIN(SALARY)	MIN(DEPT_ID)
9000	4200	60

DISTICNT VALUES:

```
SELECT DISTINCT DEPT_ID FROM DBMS
```

DEPT_ID
50
90
60

NVL:

```
SELECT AVG(NVL(SALARY,0)) FROM DBMS
```

AVG(NVL(SALARY,0))
9220

MAX USING GROUP BY:

```
SELECT MAX(SALARY) FROM DBMS GROUP BY DEPT_ID
```

MAX(SALARY)
5800
24000
9000

3 rows selected. 0.01 seconds

GROUP BY IN SELECT:

```
SELECT DEPT_ID,MAX(SALARY) FROM DBMS GROUP BY DEPT_ID
```

DEPT_ID	MAX(SALARY)
50	5800
90	24000
60	9000

HAVING:

```
SELECT DEPT_ID,MAX(SALARY) FROM DBMS GROUP BY DEPT_ID HAVING COUNT(*)>1 ORDER BY DEPT_ID
```

DEPT_ID	MAX(SALARY)
50	5800
60	9000
90	24000

ROLLUP RESULT:

```
SELECT DEPT_ID, SALARY,SUM(SALARY) FROM DBMS WHERE DEPT_ID>50 GROUP BY ROLLUP(DEPT_ID,SALARY)
```

DEPT_ID	SALARY	SUM(SALARY)
60	4200	4200
60	6000	6000
60	9000	9000
60	-	19200
90	17000	34000
90	24000	24000
90	-	58000
-	-	77200

8 rows selected. 0.01 seconds

CUBE:

```
SELECT DEPT_ID,SALARY,SUM(SALARY) FROM DBMS WHERE DEPT_ID>50 GROUP BY CUBE(DEPT_ID,SALARY)
```

DEPT_ID	SALARY	SUM(SALARY)
-	-	77200
-	4200	4200
-	6000	6000
-	9000	9000
-	17000	34000
-	24000	24000
60	-	19200
60	4200	4200
60	6000	6000
60	9000	9000
90	-	58000
90	17000	34000
90	24000	24000

SETTING THE STAGE:

```
1   CREATE TABLE A_TAB(A_ID INTEGER);
2   CREATE TABLE B_TAB(B_ID INTEGER);
3   INSERT INTO A_TAB VALUES(1);
4   INSERT INTO A_TAB VALUES(2);
5   INSERT INTO A_TAB VALUES(3);
6   INSERT INTO A_TAB VALUES(4);
7   INSERT INTO A_TAB VALUES(5);
8   INSERT INTO B_TAB VALUES(4);
9   INSERT INTO B_TAB VALUES(5);
10  INSERT INTO B_TAB VALUES(6);
11  INSERT INTO B_TAB VALUES(7);
12  INSERT INTO B_TAB VALUES(8);
```

```
SELECT * FROM A_TAB
```

A_ID
1
2
3
4
5

5 rows selected. 0.01 seconds

```
SELECT * FROM B_TAB
```

B_ID
4
5
6
7
8

5 rows selected. 0.00 seconds

UNION:

```
SELECT A_ID FROM A_TAB UNION SELECT B_ID FROM B_TAB
```

A_ID
1
2
3
4
5
6
7
8

8 rows selected. 0.00 seconds

UNION OF ALL:

```
SELECT A_ID FROM A_TAB UNION ALL SELECT B_ID FROM B_TAB
```

A_ID
1
2
3
4
5
4
5
6
7
8

INTERSECTION:

```
SELECT A_ID FROM A_TAB INTERSECT SELECT B_ID FROM B_TAB
```

A_ID
4
5

MINUS:

```
SELECT A_ID FROM A_TAB MINUS SELECT B_ID FROM B_TAB
```

A_ID
1
2
3

SUBQUERY:

```
SELECT A_ID FROM A_TAB WHERE A_ID<(SELECT B_ID FROM B_TAB WHERE B_ID=4)
```

A_ID
1
2
3

SUBQUERY NULL:

```
SELECT A_ID FROM A_TAB WHERE A_ID<(SELECT B_ID FROM B_TAB WHERE B_ID=9)

no data found

Statement processed. 0.01 seconds
```

NEW TABLE CREATION:

```
1  CREATE TABLE CLASS_TAB(ID_NUM INTEGER, FIRST_NAME CHAR(30));
2  INSERT INTO CLASS_TAB VALUES(1,'UDAY');
3  INSERT INTO CLASS_TAB VALUES(2,'UZHMAA');
4  INSERT INTO CLASS_TAB VALUES(3,'YOGI');
5  INSERT INTO CLASS_TAB VALUES(4,'FINGER');
6  INSERT INTO CLASS_TAB VALUES(5,'VARUN');
7  SELECT * FROM CLASS_TAB;
```

SAVEPOINTS:

```
1  INSERT INTO CLASS_TAB VALUES(6,'KID');
2  COMMIT;
3  UPDATE CLASS_TAB SET FIRST_NAME = 'ADA' WHERE ID_NUM=2;
4  SAVEPOINT A;
5  INSERT INTO CLASS_TAB VALUES(7,'ARYA STARK');
6  SAVEPOINT B;
7  INSERT INTO CLASS_TAB VALUES(8,'JON SNOW');
8  SAVEPOINT C;
9  SELECT * FROM CLASS_TAB;
```

ID_NUM	FIRST_NAME
1	UDAY
2	ADA
3	YOGI
4	FINGER
5	VARUN
6	KID
7	ARYA STARK
6	KID
7	ARYA STARK
8	JON SNOW

10 rows selected. 0.00 seconds