Pseudo Columns in Oracle

The pseudo columns are just like table columns. There are two types of Pseudo columns available in Oracle. They are as follows.

1. **ROWID**
2. **ROWNUM**

ROWID Pseudo Column in Oracle:

1. A new row inserts into a table
2. Unique id address/number for each row-wise.
3. Store in database

```
SELECT ROWID, ENAME FROM EMPLOYEE;
```

```
SELECT ROWID, ENAME, DEPTNO FROM EMPLOYEE WHERE DEPTNO=10;
```

```
SELECT MIN(ROWID) FROM EMPLOYEE;
```

```
SELECT MAX(ROWID) FROM EMPLOYEE;
```

How to delete multiple duplicate rows except for one duplicate row from a table?

```
SELECT * FROM TEST;
```

```
SELECT ROWID, SNO,NAME FROM TEST;
```

```
DELETE FROM TEST WHERE ROWID NOT IN(SELECT MAX(ROWID) FROM TEST GROUP BY SNO);
```

ROWNUM Pseudo Column in Oracle:

1. Generate numbers to each row wise / group of rows wise

2. Not saved in database (temporary)

```
SELECT ROWNUM, ENAME FROM EMPLOYEE;
```

```
SELECT ROWNUM, ENAME, DEPTNO FROM EMPLOYEE WHERE DEPTNO=10;
```

1. Write a query to fetch the first-row employee details from Employee Table by using rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM=1;
```

2. Write a query to fetch the second-row employee details from the Employee table by using rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM=2;
```

Note: Generally, rownum is always starting with 1 from every selected row in a table. So to avoid this problem we can use <,<= operators.

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=2
MINUS
SELECT * FROM EMPLOYEE WHERE ROWNUM=1;
```

3. Write a query to fetch the first five rows from the Employee table by using rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=5;
```

4. Write a query to fetch the fifth-row employee details from the Employee table by using rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=5
MINUS
SELECT * FROM EMPLOYEE WHERE ROWNUM<=4;
```

5. Write a query to fetch from 3rd to 9th row from Employee table by using rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=9
MINUS
```

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<3;
```

6. Write a query to fetch the last two rows from the Employee table by rownum?

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=14
```

```
MINUS
```

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=12;
```

(or)

```
SELECT * FROM EMPLOYEE
```

```
MINUS
```

```
SELECT * FROM EMPLOYEE WHERE ROWNUM<=(SELECT COUNT(*)-2 FROM EMPLOYEE);
```