MCQs MSSQL

[**1.Query to find Second Highest Salary of Employee?**](http://www.complexsql.com/query-to-find-second-highest-salary-of-employee/)

create table employee(

id int,

emp\_name varchar(25),

departement varchar(25),

salary int

)

insert into employee values (1,'Amit','HR',68000),

(2,'Saqib','Employee',68000),(3, 'Mehvish','Admin',100000),

(4,'Ahamd','UR',68000),(5, 'Sana','Peon',15000)

-- highest sallary ----

select Max(salary) as 'hiest Sallary' from employee

-- Remove doublicate sallary ----

select count(distinct salary) as 'hiest Sallary' from employee

--\_\_\_\_\_\_\_\_\_\_ 1st Way \_\_\_\_\_\_\_\_\_\_\_

select Max(salary) from employee

-- 2nd Hightist ---

select Max(salary) from employee where salary < (select Max(salary) from employee) -- Max salars saa less then wali

--\_\_\_\_\_\_\_\_\_\_ 2nd Way \_\_\_\_\_\_\_\_\_\_\_

select distinct salary from employee

order by salary desc offset 1 row fetch next 1 rows only

--\_\_\_\_\_\_\_\_\_\_ calculate 3rd salary \_\_\_\_\_\_\_\_\_\_\_

select distinct salary from employee

order by salary desc offset 2 row fetch next 1 rows only

--\_\_\_\_\_\_\_\_\_\_ 3rd Way \_\_\_\_\_\_\_\_\_\_\_

select top 1 salary as '2ndHighestSalary'

from (

select top 2 salary from employee

order by salary desc

) as emp --- sub query kaa record ko Ultaa kr ka --> 1st Top lga do

order by salary asc

[**2.Query to find duplicate rows in table?(click here for explaination )**](http://www.complexsql.com/query-to-find-duplicate-records-in-table/)

some times Mistakly dublicate values -🡪 Insert ho gati han 🡪 delete krna ka lya hum 🡪 values find krta han

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1st Way \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

insert into employee values (2,'Saqib','Employee',68000),(3, 'Mehvish','Admin',100000)

select emp\_name,departement , count(\*) numbdublicateRow from employee

group by emp\_name , departement

having count(\*) > 1

select emp\_name , count(\*) from employee

group by emp\_name

order by count(\*) desc

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2nd Way (if ids Unique) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

create table employee2(

id int primary key identity,

name varchar(25),

department varchar(25),

salary int

)

insert into employee2 values ('Amit','HR',68000),

('Saqib','Employee',68000),('Mehvish','Admin',100000),

('Ahamd','UR',68000),('Sana','Peon',15000)

select \* from employee2

select e1.name, e1.department , count (\*) dublicatNumber from employee2 e1

inner join Employee2 e2

on e1.name = e2.name and e1.department = e2.department

and e1.id <> e2.id

group by e1.name , e1.department

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3rd Way (if ids Unique) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

select e1.name,e1.department from employee2 e1, employee2 e2

where e1.name = e2.name and e1.department = e2.department

and e1.id > e2.id

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4th Way (if ids Unique) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SELECT e.name, e.department, e.salary

FROM Employee2 e

INNER JOIN (

SELECT name, department, COUNT(\*) as NumDuplicates

FROM Employee2

GROUP BY name, department

HAVING COUNT(\*) > 1

) d

ON e.name = d.name AND e.department = d.department

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5th Way\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--show dublicate reocrd used in delete

select emp\_name,departement , Min(id) minimumIdofEmpoyee

from employee

group by emp\_name, department

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6th Way (Row\_number) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--\_\_\_ ROW\_NUMBER() is a window function in SQL ----- Agaa parhin gaa ----

--\_\_\_ OVER is Clouse

--\_\_\_ Partititon by is Clouse

--1 Unique Sequence of name Column ----

select

name,

ROW\_NUMBER() OVER (ORDER BY name asc) as RowNumber

from employee2

--2 Partition by Unique Repation of name Column

select

name,

ROW\_NUMBER() OVER (partition by name ORDER BY name asc) as RowNumber

from employee2

-- partition by name,department , Unieque Rows Repation

SELECT

[name],

[department],

ROW\_NUMBER() OVER(PARTITION BY [name], [department] ORDER BY ID) AS DuplicateCount

FROM employee2

[3.](http://www.complexsql.com/query-to-find-duplicate-records-in-table/) Delete Duplicate Records.

* **Must has Unique Id table**

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1st way \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DELETE FROM Employee

select \* from employee2

delete from employee2

where (id) not in (

select Min(id)

from employee2

group by name , department

)

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2nd way (CTE)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--We can use Common Table Expressions commonly known as CTE to remove duplicate rows in SQL Server. It is available starting from SQL Server 2005.

insert into employee2 values ('Amit','HR',68000),

('Saqib','Employee',68000),('Mehvish','Admin',100000),

('Ahamd','UR',68000),('Sana','Peon',15000)

--\_\_ CTE \_\_

-- common table Expression -- Imagenary Table -- which works with - select,delelet,

With xyz(

[name],

[department],

salary

)

as (

select

name,

department,

salary

from employee2

)

select name , department,salary FROM xyz

--- (CTE) delete dublicate record ------

WITH CTE(

[name],

department,

DuplicateCount

)

as(

select

name,

department,

ROw\_number() over(partition by [name],[department] order by id) as DuplicateCount

from employee2

)

DELETE FROM cte

WHERE DuplicateCount > 1;

**4.** [**How to fetch  monthly Salary of Employee if annual salary is given?(click here for Explaination)**](http://www.complexsql.com/query-find-monthly-salary-employee-annual-salary-given/)

Ager Salana Sallery ho to -🡪 monthly kasaa nekalain gaa

(Divide Value / 12)

CREATE TABLE employees (

employee\_id INT PRIMARY KEY,

employee\_name VARCHAR(50),

annual\_salary DECIMAL(10, 2)

);

INSERT INTO employees (employee\_id, employee\_name, annual\_salary)

VALUES

(1, 'John Smith', 60000.00),

(2, 'Jane Doe', 75000.00),

(3, 'Bob Johnson', 50000.00),

(4, 'Mary ,', 90000.00),

(5, 'David Kim', 65000.00)

select employee\_name, annual\_salary , Convert(DECIMAL(10,2),annual\_salary/12) montlysalery from employees

where employee\_id = 1

select employee\_name, annual\_salary , Convert(DECIMAL(10,2),annual\_salary/12) montlysalery from employees

**5. What is the Query to fetch first record from Employee table? (90% asked Complex SQL Queries Examples)**

select top 1 \* from employees order by employee\_id asc;

**6. What is Query to display first 5 Records from Employee table?(90% asked Complex SQL Queries Examples)**

select top 5 from employees order by employee\_id asc;

**7. What is the Query to fetch last record from the table?**

select top 1 \* from employees order by employee\_id desc

**8. How to get 3 Highest salaries records from Employee table?**

select top 3 \* from employees order by salary desc

**9. How to get 3red Highest salaries Complete records from Employee table?**

**Gives only Salary record**

select top 1 \* from (

select top 3 salary from employee1

order by salary desc

) as emp\_salary

order by salary asc

**10. Display odd Number Records**

select \* from employee1

where id % 2 = 1;

**11. Display odd Number Records**

select \* from employee1

where id % 2 = 0;

**12. Display 1st half Records of Table Recors**

***------ Give Record 1st half -------***

select top (select COUNT(\*)/2 from employees) \* from employees;

select COUNT(\*)/2 from employees;

**13. Display Last half Records of Table Recors**

***------ Give half Record 2nd half-------***

SELECT \*

FROM (

SELECT ROW\_NUMBER() OVER (ORDER BY (SELECT NULL)) AS RowNum, \*

FROM employee1

) AS employee1

WHERE RowNum > (SELECT COUNT(\*) / 2 FROM employee1);

**14. Create table with same structure of Employee table**

SELECT \* INTO new\_table\_name FROM employee WHERE 1=0;

**15. Create table with same structure with data of Employee table**

SELECT \* INTO new\_table\_name1 FROM employee

**16. Insert 2nd table Records in 1st table.**

INSERT INTO new\_table\_name (employee\_id,first\_name,department\_id)

SELECT employee\_id,first\_name,department\_id

FROM new\_table\_name1;