-- Simple query questions.

-- Return Employee records with highest salary

-- Return highest salary in the employee table.

-- Return 2nd highest salary form employee table.

-- Retrun 3rd, 4th , 5th highest salary from the employee table

-- Select range of employee based on id.

-- Returns employee record with higest salary and the employee's department name.

-- Return Highest salary, employee name, department name for each department.

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| --- |
| create table Employee  (employee\_id nvarchar(50),first\_name nvarchar(50),last\_name nvarchar(50),  gender nvarchar(50),department\_id nvarchar(50), salary nvarchar(50),  PRIMARY KEY (employee\_id)); |
| insert into [dbo].[Department] values('1', 'IT'),('2','Salse'); |
| **Adding foreign key in the already created Employee Table**  ALTER TABLE dbo.Employee ADD FOREIGN KEY (department\_id) REFERENCES Department(department\_id); |
| **Insert Query for Employee and Department Table:**  insert into dbo.Employee values  ('1002','Spider','Man','M','Developer','1','12000'),  ('1003','Arun','Gupta','M','Developer','1','12000'),  ('1004','Bunty','Agarwal','M','Developer','1','12000'),  ('1005','Shilpi','Agarwal','F','Developer','2','12000'),  ('1006','Atharv','Gupta','M','Developer','2','12000'), ('1007','Ram','Kumar','M','Developer','2','12000'),  ('1008','Ramesh','Sippi','M','Developer','2','12000'),  ('1009','Gaurav','Kumar','M','Developer','2','12000');  insert into [dbo].[Department] values  ('1', 'IT'),  ('2','Salse'); |

**Updating already inserted salary based on employee\_id**

|  |
| --- |
| update [dbo].[Employee] set salary ='9000' where employee\_id='1003'  update [dbo].[Employee] set salary ='8000' where employee\_id='1004'  update [dbo].[Employee] set salary ='7000' where employee\_id='1005'  update [dbo].[Employee] set salary ='6000' where employee\_id='1006'  update [dbo].[Employee] set salary ='5000' where employee\_id='1007'  update [dbo].[Employee] set salary ='4000' where employee\_id='1008'  update [dbo].[Employee] set salary ='3000' where employee\_id='1009' |

**Getting all the record from Employee Table:**

select \* from dbo.Employee

|  |
| --- |
| 1001 Super Man M Developer 1 12000.00  1002 Spider Man M Developer 1 10000.00  1003 Arun Gupta M Developer 1 9000.00  1004 Bunty Agarwal M Developer 1 8000.00  1005 Shilpi Agarwal F Developer 2 7000.00  1006 Atharv Gupta M Developer 2 6000.00  1007 Ram Kumar M Developer 2 5000.00  1008 Ramesh Sippi M Developer 2 4000.00  1009 Gaurav Kumar M Developer 2 3000.00 |

**-- Return Employee records with highest salary**

Using subquery or nested query to get highest salary

In this case the output of subquery will be the input for main query used in the where clause for filter the record:

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| --- |
| **select \* from [dbo].[Employee]**  **where salary= (select MAX (salary) from employee)**  **Explanation**: Here we have used subquery which returns the Max salary and this subquery result will be the input for outer main query.  Let’s say the Max salary is 12000 then now the outer query will become like given below:  **select \* from [dbo]. [Employee] where salary='12000'**  and the **final output** will be:  employee\_id first\_name last\_name gender designation department\_id salary  1001 Super Man M Developer 1 12000.00 |

In this way we can get the highest salary from the employee table:

**-Return highest salary in the employee table.**

|  |
| --- |
| select MAX (salary) from employee  output: 12000 |

**-- Return 2nd highest salary form employee table.**

|  |
| --- |
| select MAX(salary)  from [dbo].[Employee]  where salary Not in (select MAX (Salary) from [dbo].[Employee] )  ouput: **10000** |

Note: if in the above query we want to get first name and last name then the above query can be written as:

|  |
| --- |
| select MAX(salary)  from [dbo].[Employee]  where salary Not in (select MAX (Salary) from [dbo].[Employee] )  In the above query we are trying to get MAX salary which will not be equal to MAX salary of subquery. |

But the above query we will get error as given below:

Error:

Column 'dbo.Employee.first\_name' is invalid in the select list because it is not contained in either an aggregate function or the GROUP BY clause.

**Since here we are using aggregate function MAX so we cannot use other fields**

**In the above we have written sub queries:**

**Now we will write co-related query:**

Getting 2nd, 3rd ,4th salary from the Employee Table using co-related query: