

SQL SERVER INTERVIEW QUESTIONS BY “Vikas Ahlawat”

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SQL SERVER INTERVIEW QUERY SET : 1 WITH ANSWERS/SOLUTION

Here I come with more than 100 SQL Server queries for Database/.NET/SQL Server developers, So keep visiting this page.

This is for both fresher and experienced developers which would be helpful for Interview preparation.

First try to answer these queries and put comment. After that see the answers of each query in solution set.

Tables:-

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

SQL SERVER INTERVIEW QUERY FOR FRESHER SET : 1 SOLUTION

--1. Write query to get all employee detail from "EmployeeDetail" table

--ANS:

```
SELECT * FROM [EmployeeDetail]
```

Results		Messages					
	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--2. Write query to get only "FirstName" column from "EmployeeDetail" table

--ANS:

```
SELECT FirstName FROM [EmployeeDetail]
```

	FirstName
1	Vikas
2	nikita
3	Ashish
4	Nikhil
5	anish

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--3. Write query to get FirstName in uppler case as "First Name".

--ANS:

```
SELECT UPPER(FirstName) AS [First Name] FROM [EmployeeDetail]
```

ResultsMessages

	First Name
1	VIKAS
2	NIKITA
3	ASHISH
4	NIKHIL
5	ANISH

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--4. Write query to get FirstName in lower case as "First Name".

--ANS:

```
SELECT LOWER(FirstName) AS [First Name] FROM [EmployeeDetail]
```

	First Name
1	vikas
2	nikita
3	ashish
4	nikhil
5	anish

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--5. Write query for combine FirstName and LastName and display it as "Name" (also include white space between first name & last name)

--ANS:

```
SELECT FirstName + ' ' + LastName AS [Name] FROM [EmployeeDetail]
```

Results

Messages

	Name
1	Vikas Ahlawat
2	nikita Jain
3	Ashish Kumar
4	Nikhil Shama
5	anish kadian

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--6. Select employee detail whose name is "Vikas"

--ANS:

```
SELECT * FROM [EmployeeDetail] WHERE FirstName = 'Vikas'
```

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male

--7. Get all employee detail from EmployeeDetail table whose "FirstName" start with latter 'a'.

--ANS:

```
SELECT * FROM [EmployeeDetail] WHERE FirstName like 'a%'
```

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
2	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--8. Get all employee details from EmployeeDetail table whose "FirstName" contains 'k'

--ANS:

```
SELECT * FROM [EmployeeDetail] WHERE FirstName like '%k%'
```

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male

--9. Get all employee details from EmployeeDetail table whose "FirstName" end with 'h'

--ANS:

```
SELECT * FROM [EmployeeDetail] WHERE FirstName like '%h'
```

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
2	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--10. Get all employee detail from EmployeeDetail table whose "FirstName" start with any single character between 'a-p'

--ANS:

```
SELECT * FROM [EmployeeDetail] WHERE FirstName like '[a-p]%'
```

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
2	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
3	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
4	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

SQL SERVER QUERY INTERVIEW QUESTION SET : 2
SQL Query Interview Questions Set-2 - String

Related Tables:-

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Sharma	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--11. Get all employee detail from EmployeeDetail table whose "FirstName" not start with any single character between 'a-p'

SELECT * FROM [EmployeeDetail] WHERE FirstName like '[^a-p]%'

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male

--12. Get all employee detail from EmployeeDetail table whose "Gender" end with 'le' and contain 4 letters.

--The Underscore(_) Wildcard Character represents any single character.

SELECT * FROM [EmployeeDetail] WHERE Gender like '__le' --there are two "_"

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
3	4	Nikhil	Sharma	480000.00	2014-01-09 09:00:07.793	HR	Male
4	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--13. Get all employee detail from EmployeeDetail table whose "FirstName" start with 'A' and contain 5 letters.

SELECT * FROM [EmployeeDetail] WHERE FirstName like 'A____' --there are two "_"

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--14. Get all employee detail from EmployeeDetail table whose "FirstName" containing '%'. ex:-"Vik%as".

```
SELECT * FROM [EmployeeDetail] WHERE FirstName like '%[%]%' --there are two
" "
--According to our table it would return 0 rows, because no name containing
'%'
```

--15. Get all unique "Department" from EmployeeDetail table.

```
SELECT DISTINCT(Department) FROM [EmployeeDetail]
```

	Department
1	HR
2	IT
3	Payroll

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--16. Get the highest "Salary" from EmployeeDetail table.

```
SELECT MAX(Salary) FROM [EmployeeDetail]
```

	(No column name)
1	1000000.00

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--17. Get the lowest "Salary" from EmployeeDetail table.

```
SELECT MIN(Salary) FROM [EmployeeDetail]
```

	(No column name)
1	480000.00

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*****SQL SERVER DATE RELATED INTERVIEW

QUERY*****

--18. Show "JoiningDate" in "dd mmm yyyy" format, ex- "15 Feb 2013"

```
SELECT CONVERT(VARCHAR(20),JoiningDate,106) FROM [EmployeeDetail]
```

	(No column name)
1	15 Feb 2013
2	09 Jan 2014
3	09 Jan 2014
4	09 Jan 2014
5	09 Jan 2014

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--19. Show "JoiningDate" in "yyyy/mm/dd" format, ex- "2013/02/15"

```
SELECT CONVERT(VARCHAR(20),JoiningDate,111) FROM [EmployeeDetail]
```

	(No column name)
1	2013/02/15
2	2014/01/09
3	2014/01/09
4	2014/01/09
5	2014/01/09

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--20. Show only time part of the "JoiningDate".

```
SELECT CONVERT(VARCHAR(20),JoiningDate,108) FROM [EmployeeDetail]
```

	(No column name)
1	11:16:28
2	17:31:07
3	10:05:07
4	09:00:07
5	09:31:07

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*****SQL DATETIME RELATED QUERIES*****

--21. Get only Year part of "JoiningDate".

```
SELECT DATEPART(YEAR, JoiningDate) FROM [EmployeeDetail]
```

	(No column name)
1	2013
2	2014
3	2014
4	2014
5	2014

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--22. Get only Month part of "JoiningDate".

```
SELECT DATEPART(MONTH,JoiningDate) FROM [EmployeeDetail]
```

--23. Get system date.

```
SELECT GETDATE()
```

--24. Get UTC date.

```
SELECT GETUTCDATE()
```

--25. Get the first name, current date, joiningdate and diff between current date and joining date in months.

```
SELECT FirstName, GETDATE() [Current Date], JoiningDate,
DATEDIFF(MM,JoiningDate,GETDATE()) AS [Total Months] FROM [EmployeeDetail]
```

	FirstName	Current Date	JoiningDate	Total Months
1	Vikas	2014-07-08 11:50:34.600	2013-02-15 11:16:28.290	17
2	nikita	2014-07-08 11:50:34.600	2014-01-09 17:31:07.793	6
3	Ashish	2014-07-08 11:50:34.600	2014-01-09 10:05:07.793	6
4	Nikhil	2014-07-08 11:50:34.600	2014-01-09 09:00:07.793	6
5	anish	2014-07-08 11:50:34.600	2014-01-09 09:31:07.793	6

--26. Get the first name, current date, joiningdate and diff between current date and joining date in days.

SELECT FirstName, GETDATE() [Current Date], JoiningDate,
DATEDIFF(DD,JoiningDate,GETDATE()) AS [Total Months] FROM [EmployeeDetail]

	FirstName	Current Date	JoiningDate	Total Months
1	Vikas	2014-07-08 11:52:09.247	2013-02-15 11:16:28.290	508
2	nikita	2014-07-08 11:52:09.247	2014-01-09 17:31:07.793	180
3	Ashish	2014-07-08 11:52:09.247	2014-01-09 10:05:07.793	180
4	Nikhil	2014-07-08 11:52:09.247	2014-01-09 09:00:07.793	180
5	anish	2014-07-08 11:52:09.247	2014-01-09 09:31:07.793	180

--27. Get all employee details from EmployeeDetail table whose joining year is 2013.

SELECT * FROM [EmployeeDetail] WHERE DATEPART(YYYY,JoiningDate) = '2013'

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male

--28. Get all employee details from EmployeeDetail table whose joining month is Jan(1).

SELECT * FROM [EmployeeDetail] WHERE DATEPART(MM,JoiningDate) = '1'

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
2	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
3	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
4	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--29. Get all employee details from EmployeeDetail table whose joining date between "2013-01-01" and "2013-12-01".

SELECT * FROM [EmployeeDetail] WHERE JoiningDate BETWEEN '2013-01-01' AND '2013-12-01'

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male

--30. Get how many employee exist in "EmployeeDetail" table.

SELECT COUNT(*) FROM [EmployeeDetail]

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So lets start SQL Quiz. SET-4 (31-41)
 Related Tables:-

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Sharma	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--31. Select only one/top 1 record from "EmployeeDetail" table.

SELECT TOP 1 * FROM [EmployeeDetail]

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male

--32. Select all employee detail with First name "Vikas", "Ashish", and "Nikhil".

SELECT * FROM [EmployeeDetail] WHERE FirstName IN('Vikas','Ashish','Nikhil')

--33. Select all employee detail with First name not "Vikas", "Ashish", and "Nikhil".

SELECT * FROM [EmployeeDetail] WHERE FirstName NOT IN('Vikas','Ashish','Nikhil')

Results		Messages					
	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
2	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--34. Select first name from "EmployeeDetail" table after removing white spaces from right side

SELECT RTRIM(FirstName) AS [FirstName] FROM [EmployeeDetail]

	FirstName
1	Vikas
2	nikita
3	Ashish
4	Nikhil
5	anish

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--35. Select first name from "EmployeeDetail" table after removing white spaces from left side

SELECT LTRIM(FirstName) AS [FirstName] FROM [EmployeeDetail]

	FirstName
1	Vikas
2	nikita
3	Ashish
4	Nikhil
5	anish

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--36. Display first name and Gender as M/F.(if male then M, if Female then F)

SELECT FirstName, CASE WHEN Gender = 'Male' THEN 'M'
WHEN Gender = 'Female' THEN 'F'
END AS [Gender]
FROM [EmployeeDetail]

	FirstName	Gender
1	Vikas	M
2	nikita	F
3	Ashish	M
4	Nikhil	M
5	anish	M

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--37. Select first name from "EmployeeDetail" table prefixed with "Hello "

SELECT 'Hello ' + FirstName FROM [EmployeeDetail]

	(No column name)
1	Hello Vikas
2	Hello nikita
3	Hello Ashish
4	Hello Nikhil
5	Hello anish

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--38. Get employee details from "EmployeeDetail" table whose Salary greater than 600000

SELECT * FROM [EmployeeDetail] WHERE Salary > 600000

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male

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--39. Get employee details from "EmployeeDetail" table whose Salary less than 700000

SELECT * FROM [EmployeeDetail] WHERE Salary < 700000

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
4	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

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--40. Get employee details from "EmployeeDetail" table whose Salary between 500000 than 600000

SELECT * FROM [EmployeeDetail] WHERE Salary BETWEEN 500000 AND 600000

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

--41. Select second highest salary from "EmployeeDetail" table.

SELECT TOP 1 Salary FROM

(

SELECT TOP 2 Salary FROM [EmployeeDetail] ORDER BY Salary DESC

) T ORDER BY Salary ASC

Results		Messages	
	Salary		
1	600000.00		

The GROUP BY statement is used in conjunction with the aggregate functions to group the result-set by one or more columns.

Related Table:

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

ProjectDetail table

	ProjectDetailID	EmployeeDetailID	ProjectName
1	1	1	Task Track
2	2	1	CLP
3	3	1	Survey Managment
4	4	2	HR Managment
5	5	3	Task Track
6	6	3	GRS
7	7	3	DDS
8	8	4	HR Managment
9	9	6	GL Managment

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*****GROUP BY RELATED SQL(MS SQL SERVER) INTERVIEW QUERIES*****

--42. Write the query to get the department and department wise total(sum) salary from "EmployeeDetail" table.

--ANS :

```
SELECT Department, SUM(Salary) AS [Total Salary] FROM [EmployeeDetail]
GROUP BY Department
```

	Department	Total Salary
1	HR	1010000.00
2	IT	1600000.00
3	Payroll	500000.00

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--43. Write the query to get the department and department wise total(sum) salary, display it in ascending order according to salary.

--ANS :

```
SELECT Department, SUM(Salary) AS [Total Salary] FROM [EmployeeDetail]
GROUP BY Department ORDER BY SUM(Salary) ASC
```

	Department	Total Salary
1	Payroll	500000.00
2	HR	1010000.00
3	IT	1600000.00

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--44. Write the query to get the department and department wise total(sum) salary, display it in descending order according to salary.

--ANS :

```
SELECT Department, SUM(Salary) AS [Total Salary] FROM [EmployeeDetail]
GROUP BY Department ORDER BY SUM(Salary) DESC
```

	Department	Total Salary
1	IT	1600000.00
2	HR	1010000.00
3	Payroll	500000.00

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--45. Write the query to get the department, total no. of departments, total(sum) salary with respect to department from "EmployeeDetail" table.

--ANS :

```
SELECT Department, COUNT(*) AS [Dept Counts], SUM(Salary) AS [Total
Salary] FROM [EmployeeDetail]
GROUP BY Department
```

	Department	Dept Counts	Total Salary
1	HR	2	1010000.00
2	IT	2	1600000.00
3	Payroll	1	500000.00

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--46. Get department wise average salary from "EmployeeDetail" table order by salary ascending

--ANS:

```
SELECT Department, AVG(Salary) AS [Average Salary] FROM [EmployeeDetail]
GROUP BY Department ORDER BY AVG(Salary) ASC
```

	Department	Average Salary
1	Payroll	500000.000000
2	HR	505000.000000
3	IT	800000.000000

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--47. Get department wise maximum salary from "EmployeeDetail" table order by salary ascending

--ANS:

```
SELECT Department, MAX(Salary) AS [Average Salary] FROM [EmployeeDetail]
GROUP BY Department ORDER BY MAX(Salary) ASC
```

	Department	Average Salary
1	Payroll	500000.00
2	HR	530000.00
3	IT	1000000.00

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--48. Get department wise minimum salary from "EmployeeDetail" table order by salary ascending

--ANS:

```
SELECT Department, MIN(Salary) AS [Average Salary] FROM [EmployeeDetail]
GROUP BY Department ORDER BY MIN(Salary) ASC
```

	Department	Average Salary
1	HR	480000.00
2	Payroll	500000.00
3	IT	600000.00

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--USE OF HAVING

--49. Write down the query to fetch Project name assign to more than one Employee

--ANS:

```
Select ProjectName, Count(*) [NoofEmp] from [ProjectDetail] GROUP BY Project
Name HAVING COUNT(*) > 1
```

	ProjectName	NoofEmp
1	HR Managment	2
2	Task Track	2

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ProjectDetail table

	ProjectDetailID	EmployeeDetailID	ProjectName
1	1	1	Task Track
2	2	1	CLP
3	3	1	Survey Managment
4	4	2	HR Managment
5	5	3	Task Track
6	6	3	GRS
7	7	3	DDS
8	8	4	HR Managment
9	9	6	GL Managment

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*****SQL JOINS RELATED INTERVIEW QUERIES*****

--51. Get employee name, project name order by firstname from "EmployeeDetail" and "ProjectDetail" for those employee which have assigned project already.
 --ANS:

SELECT FirstName,ProjectName **FROM** [EmployeeDetail] A **INNER JOIN** [ProjectDetail] B **ON** A.EmployeeID = B.EmployeeDetailID **ORDER BY** FirstName

	FirstName	ProjectName
1	Ashish	Task Track
2	Ashish	GRS
3	Ashish	DDS
4	Nikhil	HR Managment
5	nikita	HR Managment
6	Vikas	Task Track
7	Vikas	CLP
8	Vikas	Survey Managment

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--52. Get employee name, project name order by firstname from "EmployeeDetail" and "ProjectDetail" for all employee even they have not assigned project.

--ANS:

SELECT FirstName,ProjectName FROM [EmployeeDetail] A LEFT OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID ORDER BY FirstName

	FirstName	ProjectName
1	anish	NULL
2	Ashish	Task Track
3	Ashish	GRS
4	Ashish	DDS
5	Nikhil	HR Managment
6	nikita	HR Managment
7	Vikas	Task Track
8	Vikas	CLP
9	Vikas	Survey Managment

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--53(35.1) Get employee name, project name order by firstname from "EmployeeDetail" and "ProjectDetail" for all employee if project is not assigned then display "-No Project Assigned".

--ANS:

SELECT FirstName, ISNULL(ProjectName, '-No Project Assigned') FROM [EmployeeDetail] A LEFT OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID ORDER BY FirstName

--54. Get all project name even they have not matching any employeeid, in left table, order by firstname from "EmployeeDetail" and "ProjectDetail".

--ANS:

SELECT FirstName,ProjectName FROM [EmployeeDetail] A RIGHT OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID ORDER BY FirstName

	FirstName	ProjectName
1	NULL	GL Managment
2	Ashish	Task Track
3	Ashish	GRS
4	Ashish	DDS
5	Nikhil	HR Managment
6	nikita	HR Managment
7	Vikas	Task Track
8	Vikas	CLP
9	Vikas	Survey Managment

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--55. Get complete record(employee name, project name) from both tables([EmployeeDetail],[ProjectDetail]), if no match found in any table then show NULL.

--ANS:

SELECT FirstName,ProjectName FROM [EmployeeDetail] A FULL OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID ORDER BY FirstName

	FirstName	ProjectName
1	NULL	GL Managment
2	anish	NULL
3	Ashish	Task Track
4	Ashish	GRS
5	Ashish	DDS
6	Nikhil	HR Managment
7	nikita	HR Managment
8	Vikas	Task Track
9	Vikas	CLP
10	Vikas	Survey Managment

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--56. Write a query to find out the employee name who has not assigned any project, and display "-No Project Assigned" (tables :- [EmployeeDetail],[ProjectDetail]).

--ANS:

```
SELECT FirstName, ISNULL(ProjectName, '-No Project Assigned') AS [ProjectName] FROM [EmployeeDetail] A LEFT OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID WHERE ProjectName IS NULL
```

	FirstName	ProjectName
1	anish	-No Project Assigned

--57. Write a query to find out the project name which is not assigned to any employee (tables :- [EmployeeDetail],[ProjectDetail]).

--ANS:

```
SELECT ProjectName FROM [EmployeeDetail] A RIGHT OUTER JOIN [ProjectDetail] B ON A.EmployeeID = B.EmployeeDetailID WHERE ProjectName IS NULL
```

	ProjectName
1	GL Managment

--58. Write down the query to fetch EmployeeName & Project who has assigned more than one project.

--ANS:

```
Select EmployeeID, FirstName, ProjectName from [EmployeeDetail] E INNER JOIN [ProjectDetail] P ON E.EmployeeID = P.EmployeeDetailID WHERE EmployeeID IN (SELECT EmployeeDetailID FROM [ProjectDetail] GROUP BY EmployeeDetailID HAVING COUNT(*) > 1 )
```

	EmployeeID	FirstName	ProjectName
1	1	Vikas	Task Track
2	1	Vikas	CLP
3	1	Vikas	Survey Managment
4	3	Ashish	Task Track
5	3	Ashish	GRS
6	3	Ashish	DDS

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--59. Write down the query to fetch ProjectName on which more than one employee are working along with EmployeeName.

--ANS:

Select FirstName, ProjectName from [EmployeeDetail] E INNER JOIN [ProjectDetail] P
ON E.EmployeeID = P.EmployeeDetailID

	FirstName	ProjectName
1	Vikas	Task Track
2	nikita	HR Managment
3	Ashish	Task Track
4	Nikhil	HR Managment

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COMPLEX JOINS : MS SQL SERVER JOINS QUERIES INTERVIEW QUESTIONS AND ANSWERS FOR
EXPERIENCED WITH EXAMPLES(MORE THAN 3 YEARS)

Following are the related tables for joins:

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Sharma	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

ProjectDetail table

	ProjectDetailID	EmployeeDetailID	ProjectName
1	1	1	Task Track
2	2	1	CLP
3	3	1	Survey Managment
4	4	2	HR Managment
5	5	3	Task Track
6	6	3	GRS
7	7	3	DDS
8	8	4	HR Managment
9	9	6	GL Managment

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TBL_1

	ID
1	1
2	1

TBL_2

	ID
1	1
2	1
3	1

Table_1

	ID	Name
1	1	Vikas Ahlawat
2	2	Sachin Aggarwal
3	3	Manoj Kumar

Table_2

	ID	Name
1	1	Vikas Ahlawat
2	4	Sanjay Kumar
3	5	Sachin Aggarwal
4	3	Sandeep Kumar

COMPLEX SQL JOINS INTERVIEW QUERIES SET- 7

LETS START

--60. What would be the output of the following query(INNER JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 INNER JOIN TBL_2 T2 ON T1.ID = T2.ID
```

--ANS:

	ID	ID
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1

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--61. What will be the output of the following query(LEFT OUTER JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 LEFT OUTER JOIN TBL_2 T2 ON T1.ID = T2.ID
```

--ANS: Output would be same as 60th Question

--62. What will be the output of the following query(LEFT OUTER JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 LEFT OUTER JOIN TBL_2 T2 ON T1.ID = T2.ID
```

--ANS: Output would be same as 60th Question

--63. What will be the output of the following query(RIGHT OUTER JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 RIGHT OUTER JOIN TBL_2 T2 ON T1.ID = T2.ID
```

--ANS: Output would be same as 60th Question

--64. What will be the output of the following query(FULL OUTER JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 FULL OUTER JOIN TBL_2 T2 ON T1.ID = T2.ID
```

--ANS: Output would be same as 60th Question

--65. What will be the output of the following query(CROSS JOIN)

```
SELECT T1.ID, T2.ID FROM TBL_1 T1 CROSS JOIN TBL_2 T2
--ANS: Output would be same as 60th Question
```

--66. What will be the output of the following query.(Related Tables : Table_1,Table_2)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID = B.ID
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat
2	3	Manoj Kumar	3	Sandeep Kumar

--67. What will be the output of the following query.(Related Tables : Table_1,Table_2)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID = B.ID AND A.[Name] = B.[Name]
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat

--68. What will be the output of the following query.(Related Tables : Table_1,Table_2)

--(INNER JOIN WITH AND)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID = B.ID AND A.[Name] = B.[Name]
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat

--69. What will be the output of the following query.(Related Tables : Table_1,Table_2)

--(INNER JOIN WITH OR)

```
SELECT A.[ID] , A.[Name],B.[ID] , B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID = B.ID OR A.[Name] = B.[Name]
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat
2	2	Sachin Aggarwal	5	Sachin Aggarwal
3	3	Manoj Kumar	3	Sandeep Kumar

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<http://www.interviewquestionspdf.com/2014/07/sql-queries-interview-questions-answers.html>

--70. What will be the output of the following query.(Related Tables : Table_1,Table_2)

```
--(INNER JOIN WITH NOT EQUAL !=)
SELECT A.[ID], A.[Name],B.[ID], B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID != B.ID
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	4	Sanjay Kumar
2	1	Vikas Ahlawat	5	Sachin Aggarwal
3	1	Vikas Ahlawat	3	Sandeep Kumar
4	2	Sachin Aggarwal	1	Vikas Ahlawat
5	2	Sachin Aggarwal	4	Sanjay Kumar
6	2	Sachin Aggarwal	5	Sachin Aggarwal
7	2	Sachin Aggarwal	3	Sandeep Kumar
8	3	Manoj Kumar	1	Vikas Ahlawat
9	3	Manoj Kumar	4	Sanjay Kumar
10	3	Manoj Kumar	5	Sachin Aggarwal

--71. What will be the output of the following query.(Related Tables : Table_1,Table_2)

```
--(INNER JOIN WITH NOT)
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON NOT(A.ID = B.ID)
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	4	Sanjay Kumar
2	1	Vikas Ahlawat	5	Sachin Aggarwal
3	1	Vikas Ahlawat	3	Sandeep Kumar
4	2	Sachin Aggarwal	1	Vikas Ahlawat
5	2	Sachin Aggarwal	4	Sanjay Kumar
6	2	Sachin Aggarwal	5	Sachin Aggarwal
7	2	Sachin Aggarwal	3	Sandeep Kumar
8	3	Manoj Kumar	1	Vikas Ahlawat
9	3	Manoj Kumar	4	Sanjay Kumar
10	3	Manoj Kumar	5	Sachin Aggarwal

--72. What will be the output of the following query.(Related Tables : Table_1,Table_2)

```
--(INNER JOIN WITH IN)
SELECT A.[ID], A.[Name],B.[ID], B.[Name] FROM [Table_1]
A INNER JOIN [Table_2] B
ON A.ID IN(1)
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat
2	1	Vikas Ahlawat	4	Sanjay Kumar
3	1	Vikas Ahlawat	5	Sachin Aggarwal
4	1	Vikas Ahlawat	3	Sandeep Kumar

--73. What will be the output of the following query. (Related Tables : Table_1, Table_2)

--(INNER JOIN WITH NOT)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
```

```
A INNER JOIN [Table_2] B
```

```
ON NOT (A.ID = B.ID)
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	4	Sanjay Kumar
2	1	Vikas Ahlawat	5	Sachin Aggarwal
3	1	Vikas Ahlawat	3	Sandeep Kumar
4	2	Sachin Aggarwal	1	Vikas Ahlawat
5	2	Sachin Aggarwal	4	Sanjay Kumar
6	2	Sachin Aggarwal	5	Sachin Aggarwal
7	2	Sachin Aggarwal	3	Sandeep Kumar
8	3	Manoj Kumar	1	Vikas Ahlawat
9	3	Manoj Kumar	4	Sanjay Kumar
10	3	Manoj Kumar	5	Sachin Aggarwal

--74. What will be the output of the following query. (Related Tables : Table_1, Table_2)

--(LEFT OUTER JOIN)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
```

```
A LEFT OUTER JOIN [Table_2] B
```

```
ON A.ID = B.ID
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	1	Vikas Ahlawat
2	2	Sachin Aggarwal	NULL	NULL
3	3	Manoj Kumar	3	Sandeep Kumar

--75. Write down the query to fetch record from Table_1 which not exist in Table_2 (based on ID column)

--ANS:

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
```

```
A LEFT OUTER JOIN [Table_2] B
```

```
ON A.ID = B.ID WHERE B.[ID] IS NULL
```

	ID	Name	ID	Name
1	2	Sachin Aggarwal	NULL	NULL

--76. What will be the output of the following query.(Related Tables : Table_1,Table_2)

--(LEFT OUTER JOIN WITH !=)

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A LEFT OUTER JOIN [Table_2] B
ON A.ID != B.ID
```

--ANS:

	ID	Name	ID	Name
1	1	Vikas Ahlawat	4	Sanjay Kumar
2	1	Vikas Ahlawat	5	Sachin Aggarwal
3	1	Vikas Ahlawat	3	Sandeep Kumar
4	2	Sachin Aggarwal	1	Vikas Ahlawat
5	2	Sachin Aggarwal	4	Sanjay Kumar
6	2	Sachin Aggarwal	5	Sachin Aggarwal
7	2	Sachin Aggarwal	3	Sandeep Kumar
8	3	Manoj Kumar	1	Vikas Ahlawat
9	3	Manoj Kumar	4	Sanjay Kumar
10	3	Manoj Kumar	5	Sachin Aggarwal

--77. Write down the query to fetch record from Table_2 which not exist in Table_1(based on ID column)

--ANS:

```
SELECT A.[ID] ,A.[Name],B.[ID] ,B.[Name] FROM [Table_1]
A RIGHT OUTER JOIN [Table_2] B
ON A.ID = B.ID WHERE A.[ID] IS NULL
```

	ID	Name	ID	Name
1	NULL	NULL	4	Sanjay Kumar
2	NULL	NULL	5	Sachin Aggarwal

So lets start: SQL DDL RELATED QUERIES

--78. Write down the query to create employee table with Identity column([EmployeeID])

--ANS:

```
CREATE TABLE EmployeeDetail([EmployeeID] INT IDENTITY(1,1) NOTNULL, [FirstName] NVARCHAR(50) NULL,
[LastName] NVARCHAR(50) NULL, [Salary] DECIMAL(10, 2) NULL, [JoiningDate] DATETIME NULL, [Department] NVARCHAR(20) NULL,
[Gender] VARCHAR(10) NULL)
```

--79. Write down the query to create employee table with Identity column([EmployeeID])

--ANS:

```
CREATE TABLE EmployeeDetail( [EmployeeID] INT IDENTITY(1,1) NOT NULL PRIMARY KEY, [FirstName] NVARCHAR(50) NULL,
[LastName] NVARCHAR(50) NULL, [Salary] DECIMAL(10, 2) NULL, [JoiningDate] DATETIME NULL, [Department] NVARCHAR(20) NULL,
[Gender] VARCHAR(10) NULL)
```

```
--80. Write down the query to create employee table with primary key
(EmployeeID)
--ANS:
CREATE TABLE EmployeeDetail( [EmployeeID] INT IDENTITY(1,1) NOT NULL PRIMARY KEY,
    [FirstName] NVARCHAR(50) NULL, [LastName] NVARCHAR(50) NULL, [Salary] DECIMAL(10, 2) NULL, [JoiningDate] DATETIME NULL, [Department] NVARCHAR(20) NULL,
    [Gender] VARCHAR(10) NULL)

--81. How to set Primary key using Alter command
--ANS:
ALTER TABLE EmployeeDetail ADD PRIMARY KEY (P_EmployeeID)

--82. How to set primary key and foreignkey relationship using query(set EmployeeID column of ProjectDetail table as a foreignkey)
--ANS:
ALTER TABLE ProjectDetail
ADD CONSTRAINT fk_EmployeeDetailID_Eid FOREIGN KEY(EmployeeDetailID) REFERENCES EmployeeDetail(EmployeeID)
```

So following query seems very easy but play roll of complex/tricky sql query.

ANSWERS :

99) A 98) D 97) A 96) C
 95) C 94) C 93) D 92) B
 91) A 90) A 89) C 88) D
 87) A 86) D 85) C 84) D 83) B

So lets start

83). **SELECT** 15

--output of this query would be.

- A). Throw error
- B). 15
- C). 0
- D). 1

84).**SELECT** \$

--output of this query would be.

- A). Throw error
- B). \$
- C). 1
- D). 0.00

85). **SELECT COUNT**(*)

--output of this query would be.

- A). Throw error
- B). 0
- C). 1
- D). *

86). `SELECT COUNT('7')`

--output of this query would be.

- A). Throw error
- B). 7
- C). 0
- D). 1

87). `SELECT 'VIKAS' + 1`

--output of this query would be.

- A). Throw error
- B). 'VIKAS'
- C). VIKAS
- D). VIKAS1

88). `SELECT 'VIKAS' + '1'`

--output of this query would be.

- A). Throw error
- B). 'VIKAS'
- C). VIKAS
- D). VIKAS1

89). `SELECT (SELECT 'VIKAS')`

--output of this query would be.

- A). Throw error
- B). 'VIKAS'
- C). VIKAS
- D). VIKAS1

90). `SELECT SELECT 'VIKAS'`

--output of this query would be.

- A). Throw error
- B). 'VIKAS'
- C). VIKAS
- D). VIKAS1

91). `SELECT * FROM 'Country'`

--output of this query would be.

- A). Throw error
- B). Select all data from country table
- C). Country

D). Throw error

92). `SELECT * FROM Country , EmployeeDetail`

--output of this query would be.

A). Throw error

B). Output will be cross join of both tables

C). Output will be inner join

D). Output will be only Country table data

93). `SELECT COUNT(*) + COUNT(*)`

--output of this query would be.

A). Throw error

B). 0

C). 1

D). 2

94). `SELECT 'VIKAS' FROM Country`

--output of this query would be.

A). Throw error

B). Display one time "VIKAS"

C). Display "VIKAS" as many rows in Country table

D). Will select country table data

95). `SELECT SUM(1+2*3)`

--output of this query would be.

A). Throw error

B). 9

C). 7

D). 6

96). `SELECT MAX(1+2*3)`

--output of this query would be.

A). Throw error

B). 3

C). 7

D). 6

97). `SELECT MAX(1,3,4)`

--output of this query would be.

A). Throw error

B). 1

C). 3

D). 4

98). `SELECT MAX('VIKAS')`

--output of this query would be.

- A). Throw error
- B). 1
- C). 2
- D). VIKAS

99). Select Count(SELECT CountryID FROM Country)

--output of this query would be.

- A). Throw error
- B). Will display count of country table
- C). 0
- D). 1

FOR NEW/LATEST SQL SERVER INTERVIEW QUESTIONS/QUERIES VISIT
<http://www.interviewquestionspdf.com/2014/07/sql-queries-interview-questions-answers.html>

Related Tables :

EmployeeDetail table

	EmployeeID	FirstName	LastName	Salary	JoiningDate	Department	Gender
1	1	Vikas	Ahlawat	600000.00	2013-02-15 11:16:28.290	IT	Male
2	2	nikita	Jain	530000.00	2014-01-09 17:31:07.793	HR	Female
3	3	Ashish	Kumar	1000000.00	2014-01-09 10:05:07.793	IT	Male
4	4	Nikhil	Shama	480000.00	2014-01-09 09:00:07.793	HR	Male
5	5	anish	kadian	500000.00	2014-01-09 09:31:07.793	Payroll	Male

ProjectDetail table

	ProjectDetailID	EmployeeDetailID	ProjectName
1	1	1	Task Track
2	2	1	CLP
3	3	1	Survey Managment
4	4	2	HR Managment
5	5	3	Task Track
6	6	3	GRS
7	7	3	DDS
8	8	4	HR Managment
9	9	6	GL Managment

FuelDetail Table

	ID	Fuel	Date
1	1	10	2014-04-25 10:00:00.000
2	2	9	2014-04-25 11:00:00.000
3	3	8	2014-04-25 12:00:00.000
4	4	6	2014-04-25 13:00:00.000
5	5	12	2014-04-25 14:00:00.000
6	6	11	2014-04-25 15:00:00.000
7	7	10	2014-04-25 16:00:00.000
8	8	9	2014-04-25 17:00:00.000
9	9	8	2014-04-25 18:00:00.000
10	10	10	2014-04-25 19:00:00.000
11	11	9	2014-04-25 20:00:00.000
12	12	8	2014-04-25 21:00:00.000
13	13	7	2014-04-25 22:00:00.000
14	14	15	2014-04-25 23:00:00.000

fuel increased



--100. Write down the query to print first letter of a Name in Upper Case and all other letter in Lower Case.(EmployDetail table)

ANS:

```
SELECT UPPER(SUBSTRING(FirstName,1,1))+LOWER(SUBSTRING(FirstName,2,LEN(FirstName)-1)) AS [FirstName]
```

Output:-

	First Name
1	Vikas
2	Nikita
3	Ashish
4	Nikhil
5	Anish

--101. Write down the query to display all employee name in one cell seprated by ',' ex: -"Vikas, nikita, Ashish, Nikhil , anish"(EmployDetail table)

ANS:

```
SELECT STUFF(( SELECT ',' + E.FirstName FROM [EmployeeDetail] AS E FOR XML PATH(''), 1, 2, '' ) AS [All Emp Name]
```

Output:-

	All Emp Name
1	Vikas, nikita, Ashish, Nikhil , anish

--102. Write down the query to get ProjectName and respective EmployeeName(firstname) which are working on the project,
 --if more then one employee working on same project, then it should be in same cell seprated by comma
 --for example :- Task Tracker : Vikas, Ashish

ANS:
 SELECT ProjectName, STUFF((SELECT ' , ' + FirstName FROM EmployeeDetail
 E1 INNER JOIN [ProjectDetail] P1 ON E1.EmployeeID = P1.EmployeeDetailID
 WHERE P1.ProjectName = P2.ProjectName FOR XML PATH('')),1,2, ") AS [Employee
 Name] FROM EmployeeDetail E2
 INNER JOIN [ProjectDetail] P2 ON E2.EmployeeID = P2.EmployeeDetailID
 GROUP BY ProjectName

Output:-

	ProjectName	Employee Name
1	CLP	Vikas
2	DDS	Ashish
3	GRS	Ashish
4	HR Managment	nikita, Nikhil
5	Survey Managment	Vikas
6	Task Track	Vikas, Ashish

AND THE VERY VERY COMPLEX QUERY HERE

--103: You have a table(FuelDetail) with ID, Fuel, And Date columns.
 --Fuel column is contain fuel quantity at a particular time when car start traveling. So we need to find out that when the driver fill Petrol in his/her car.
 --By below image you can understand the query.
 --Car start driving at 10 Am on 25th April with petrol(10 liter)
 --at 11 AM Petrol was 9 liters
 --at 12 AM petrol was 8 liters
 --at 2 PM (14) petrol was 12 liters...
 --This means that he/she fill the petrol at 25th April 2014 at 2PM
 --Next time he fill petrol at 7PM 25th April 2014
 --and Next time he fill petrol at 11PM 25th April 2014
 ANS:

```
SELECT c1.fuel AS [Fuel quantity Now],c1.[Date],c.fuel AS [Fuel quantity  
Before],c.[Date]  
FROM FuelDetail c  
JOIN
```

```
FuelDetail
c1 ON c1.[Date] =(SELECT MIN([Date]) FROM FuelDetail WHERE [Date]>c.[Date]
)
WHERE c1.fuel>c.fuel
```

Output will be:

	Fuel quantity Now	Date	Fuel quantity Before	Date
1	12	2014-04-25 14:00:00.000	6	2014-04-25 13:00:00.000
2	10	2014-04-25 19:00:00.000	8	2014-04-25 18:00:00.000
3	15	2014-04-25 23:00:00.000	7	2014-04-25 22:00:00.000

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COMMON SQL SERVER INTERVIEW QUESTIONS AND ANSWERS FOR FRESHER/(1or 2 Years exp)

Here is set-1 sql server common interview questions and answers, following are most frequently asked interview questions of sql server, These can be asked in any type of interview (.net).

1). What are the different locks in Sql Server?

Ans:

Intent

Shared

Update

Exclusive

Schema

Bulk Update

2). What are the different types of BACKUPS available in SQL Server 2005?

Ans:

In SQL Server 2005 Backup Types are

Full

Transaction Log

Differential

Partial

Differential Partial

File and Filegroup

Copy Only Database Backups.

3). What are Data files?

Ans:

This is the physical storage for all of the data on disk. Pages are read into the buffer cache

when users request data for viewing or modification. After data has been modified in memory (the buffer cache), it is written back to the data file during the checkpoint process.

4).

What is SQL Profiler?

Ans:

SQL Profiler is a graphical tool that allows system administrators to monitor events in an instance of Microsoft SQL Server. You can capture and save data about each event to a file or SQL Server table to analyze later.

5). What is the difference between DELETE and TRUNCATE statement?

Ans:

A DELETE statement enables you to selectively remove data from a table, whereas The TRUNCATE statement unconditionally removes all rows from a table.

6). What are the types of transaction levels in SQL SERVER?

Ans:

There are four transaction levels in SQL SERVER.

Read committed

Read uncommitted

Repeatable read

Serializable

7). What is the difference between a DDL trigger and a DML trigger?

Ans:

A DDL trigger executes in response to a change to the structure of a database (for example, CREATE, ALTER, DROP).

A DML trigger executes in response to a change in data (INSERT, UPDATE, DELETE).

8).

What database does SQL Server use for temporary tables?

Ans:

TempDB

9). What is a linked server?

Ans:

A linked server enables you to work with other SQL Servers as well as databases other than SQL Server databases, right from within Management Studio.

10). Define Synonym?

Ans:

Synonym is an alternative method to creating a view that includes the entire table or view from another user it to create a synonym.

A synonym is a name assigned to a table or view that may thereafter be used to refer to it.

11). What is an active database?

Ans:

Active database is a database that includes active rules, mostly in the form of ECA rules(Event Condition rules). Active database systems enhance traditional database functionality with

powerful rule processing capabilities, providing a uniform and efficient mechanism for database system applications

12). What is the difference between a HAVING CLAUSE and a WHERE CLAUSE?

Ans:

HAVING can be used only with the SELECT statement. HAVING is typically used in a GROUP BY clause. When GROUP BY is not used, HAVING behaves like a WHERE clause. Having Clause is basically used only with the GROUP BY function in a query whereas WHERE Clause is applied to each row before they are part of the GROUP BY function in a query.

13).

What are the purpose of Normalisation?

Ans:

Minimize redundancy in data.

Remove insert, delete and update anomaly during the database activities.

Reduce the need to reorganize data it is modified or enhanced.

Normalisation reduces a complex user view to a set of small and stable subgroups of fields or relations.

14). What are the types of database recovery models?

Ans:

Full

Simple

Bulk Logged

15). What the difference between UNION and UNIONALL?

Ans:

Union will remove the duplicate rows from the result set while Union all doesn't.

FOR NEW/LATEST SQL SERVER INTERVIEW QUESTIONS/QUERIES VISIT

<http://www.interviewquestionspdf.com/2014/07/sql-queries-interview-questions-answers.html>

16). What is the difference between a local and a global variable?

Ans:

A Local temporary table exists only for the duration of a connection or, if defined inside a compound statement, for the duration of the compound statement.

A Global temporary table remains in the database permanently, but the rows exist only within a given connection. When connection are closed, the data in the global temporary table disappears. However, the table definition remains with the database for access when database is opened next time.

17). What is NOT NULL Constraint?

Ans:

A NOT NULL constraint enforces that the column will not accept null values. The not null constraints are used to enforce domain integrity, as the check constraints.

18). What is log shipping?

Ans:

Log shipping is the process of automating the backup of database and transaction log files on a production SQL server, and then restoring them onto a standby server. Enterprise Editions only supports log shipping. In log shipping the transactional log file from one server is automatically updated into the backup database on the other server.

19). Define Joins?

Ans:

A Join combines columns and data from two or more tables (and in rare cases, of one table with itself).

20). What is Cross Join?

Ans:

A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join. The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table.

This is the new set of MS SQL Server index related interview questions-answers, In every sql server interview/.net interview you must face questions related to speed up query? or what is index? etc.

So set of questions will clear your doubt about index. This set is for both experienced as well as fresher ms sql server users,

First you can see the SQL Server index video tutorial by Shivprasad Koirala

<https://www.youtube.com/watch?v=rtmeNwn4mEg>

Then go-through following questions-answers series

SQL SERVER INDEX RELATED INTERVIEW QUESTIONS:

What is an Index?

Indexes of SQL Server are similar to the indexes in books. They help SQL Server retrieve the

data quicker. Index is a database object, which can be created on one or more columns. When creating the index will read the column(s) and forms a relevant data structure to minimize the number of data comparisons. The index will improve the performance of data retrieval and adds some overhead on data modification such as create, delete and modify. So it depends on how much data retrieval can be performed on table versus how much of DML (Insert, Delete and Update) operations.

How many clustered indexes there can be in one table?

Only one.

How many non-clustered indexes there can be in one table?

For SQL Server 2005: 249 Nonclustered Index

For SQL Server 2008: 999 Nonclustered Index

What is clustered table?

A table having clustered index also called as clustered table.

Disadvantages of the Indexes?

Inserts and updates takes longer time with clustered index.

It takes some disk space to create Non-Clustered index

How many columns can we include in non clustered index?

Max 16 columns can be combined to make a single composite index key, with a cap that the max size of the combined values is 900 bytes.

Why Use an Index?

Use of SQL server indexes provide many facilities such as:

- * Rapid access of information
- * Efficient access of information
- * Enforcement of uniqueness constraints

Types of Indexes?

SQL Server has two major types of indexes:

Clustered

Non-Clustered

What is Clustered index?

A clustered index sorts and stores the data rows of the table or view in order based on the clustered index key. The clustered index is implemented as a B-tree index structure that supports fast retrieval of the rows, based on their clustered index key values.

What is Non-Clustered index?

A nonclustered index can be defined on a table or view with a clustered index or on a heap.

Each index row in the nonclustered index contains the nonclustered key value and a row locator. This locator points to the data row in the clustered index or heap having the key value. The rows in the index are stored in the order of the index key values, but the data rows are not guaranteed to be in any particular order unless a clustered index is created on the table.

For understand deeply follow the link

<http://blog.sqlauthority.com/2013/02/10/sql-server-primary-key-and-nonclustered-index-in-simple-words/>

Write the T-Sql statement/syntax for create and index?

Creates an index on a table. Duplicate values are allowed:

```
CREATE INDEX index_name  
ON table_name (column_name)
```

SQL CREATE UNIQUE INDEX Syntax

Creates a unique index on a table. Duplicate values are not allowed:

```
CREATE UNIQUE INDEX index_name  
ON table_name (column_name)
```

Difference Between Unique Index vs Unique Constraint?

Unique Index and Unique Constraint are the same. They achieve same goal. SQL Performance is same for both.

What is the difference between a Clustered and Non-Clustered Index?

Clustered Index

1. There can be only one Clustered index for a table
2. Usually made on the primary key
3. The leaf nodes of a clustered index contain the data pages.
4. A clustered index actually describes the order in which records are physically stored on the disk, hence the reason you can only have one.

Non-Clustered Index

1. There can be only 249/999(2005/2008) Non-Clustered index for a table
2. Usually made on the any key
3. The leaf node of a nonclustered index does not consist of the data pages. Instead, the leaf nodes contain index rows
4. A Non-Clustered Index defines a logical order that does not match the physical order on disk.

Is Clustered index store the table data in sorted order?

Yes!

When you create an index on a column or number of columns in MS SQL Server, you can specify that the index on each column be either ascending or descending.

Generally which index perform faster Clustered or Non-Clustered?

Generally it is faster to read from a clustered index if you want to get back all the columns.

You do not have to go first to the index and then to the table.

But not its not always true, have a look on the following article

<http://www.mssqltips.com/sqlservertip/3041/when-sql-server-nonclustered-indexes-are-faster-than-clustered-indexes/>

What is Fill Factor and What is the Best Value for Fill Factor?

Fill factor is the value that determines the percentage of space on each leaf-level page to be filled with data. In an SQL Server, the smallest unit is a page, which is made of Page with size 8K. Every page can store one or more rows based on the size of the row. The default value of the Fill Factor is 100, which is same as value 0. The default Fill Factor (100 or 0) will allow the

SQL Server to fill the leaf-level pages of an index with the maximum numbers of the rows it can fit. There will be no or very little empty space left in the page, when the fill factor is 100. Ref. <http://blog.sqlauthority.com/2011/01/31/sql-server-what-is-fill-factor-and-what-is-the-best-value-for-fill-factor/>

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