

20 USEFUL QUERIES

1. How many students enrolled in the previous year?(Reason)

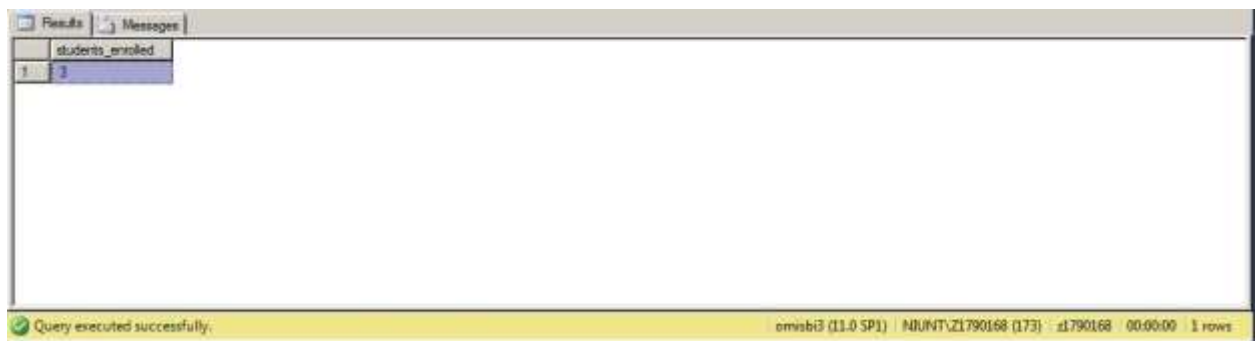
A:

Q: Display the number of students whose year of enrollment is the previous year(Question)

Use: This query tells us the enrollment of the school in the previous year so as to plan things for the school like marketing, budget, etc.

Query:

```
SELECT count(*)AS students_enrolled from Student
where datepart(yy, enr_date) = datepart(yy, dateadd(yy,-1,getdate()));
```



	students_enrolled
1	3

2. Display the name of all the parents whose first name starts with 'J'?

A:

Display first name, last name for all the parents where first name starts with 'J'

Use: This query is useful in letting the management know the parents with names starting with J so that if in case they need to send some personalized gifts to them this may be used.

Query:

```
SELECT fname, lname
FROM Parent
WHERE fname like 'J%';
```



	fname	lname
1	Jesse	Forisfeldt
2	Jared	Velas

3. Display the number of hours each staff member works during the week?

A:

Display eid, fname, lname and number of hours each employee works

Use: This query helps in knowing the number of hours each staff works.

Query:

```
SELECT s.eid, s.fname, s.lname, s.e_hours  
FROM Staff s;
```



The screenshot shows a SQL query results window with a table containing 11 rows of employee data. The columns are eid, fname, lname, and e_hours. The data is as follows:

	eid	fname	lname	e_hours
1	e1	Desire	Genie	20
2	e10	Otilia	Idalia	40
3	e11	Stanton	Georgine	40
4	e12	Sooki	Enil	20
5	e13	Karoline	Garnet	20
6	e14	Rasanti	Meeha	40
7	e15	Percy	Lillie	40
8	e16	Stephany	Charrell	40
9	e17	Iso	Ramona	20
10	e18	Jessi	Kacy	20
11	e19	Belva	Cherlyn	20

At the bottom of the window, a status bar indicates: "Query executed successfully. omisbi3 (11.0 SP1) NIUNT\Z1790168 (173) z1790168 00:00:00 30 rows".

4. Display the details of the employee who has the highest pay rate?

A:

Use: This query tells us the details of the employee who has the highest pay rate in the school which can be used for the statistics.

Query:

```
SELECT s.eid, s.fname, s.lname, s.pay_rate  
from Staff s  
where s.pay_rate = (select max(s.pay_rate)  
                    from staff s);
```



The screenshot shows a SQL query results window with a table containing 1 row of employee data. The columns are eid, fname, lname, and pay_rate. The data is as follows:

	eid	fname	lname	pay_rate
1	e7	Carna	Ade	\$3.50

At the bottom of the window, a status bar indicates: "Query executed successfully. omisbi3 (11.0 SP1) NIUNT\Z1790168 (173) z1790168 00:00:00 1 rows".

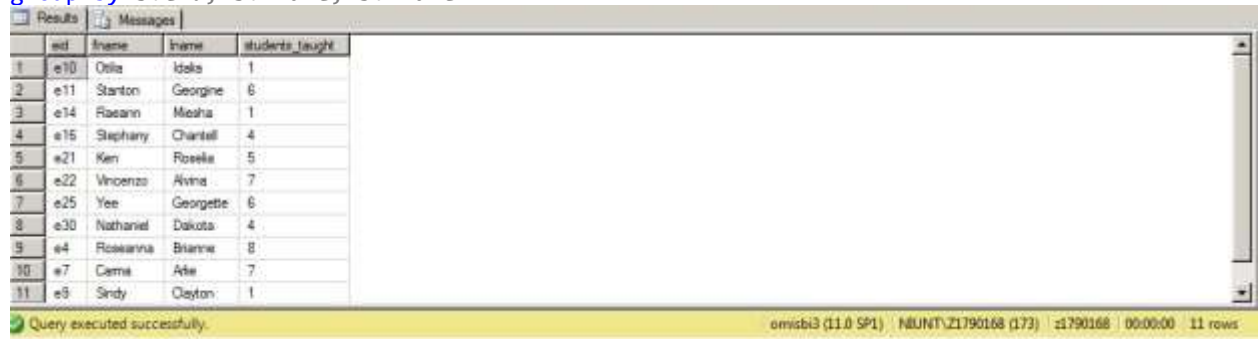
5. Display the staff id, name, and number of students each staff member teaches?

A:

Use: This query tells us the details of the staff members and the number of students each faculty teaches. This will let the school know which faculty is teaching the maximum and least amount of students.

Query:

```
select s.eid, s.fname, s.lname, count(*) as students_taught
from staff s, class c, takes t
where s.eid = c.eid and c.class_id = t.cl_id
group by s.eid, s.fname, s.lname
```



The screenshot shows a database query results window with a table containing 11 rows. The columns are 'eid', 'fname', 'lname', and 'students_taught'. The data is as follows:

	eid	fname	lname	students_taught
1	e10	Otila	Idola	1
2	e11	Stanton	Georgine	6
3	e14	Rosann	Mesha	1
4	e16	Stephani	Chantell	4
5	e21	Ken	Rosella	5
6	e22	Vincenzo	Alvina	7
7	e25	Yee	Georgette	6
8	e30	Nothaniel	Dakota	4
9	e4	Rosanna	Bianne	8
10	e7	Cama	Ake	7
11	e8	Sindy	Clayton	1

Query executed successfully. omisbi3 (11.0 SP1) NIUNT\Z1790168 (173) z1790168 00:00:00 11 rows

6. Display the budget for the year 2012

A:

Use: This query will let us know the budget of the school in a particular year.(Here 2012)

Query:

```
SELECT amount
FROM BUDGET
WHERE datepart(yy,date_budget) = 2012;
```



The screenshot shows a database query results window with a table containing 1 row. The column is 'amount'. The data is as follows:

	amount
1	68000.00

Query executed successfully. omisbi3 (11.0 SP1) NIUNT\Z1790168 (173) z1790168 00:00:00 1 rows

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7. Display the total budget for expenses during the year 2015

A:

Use: This query will let us know the amount of budget spent on expenses in the year 2015

Query:

```
SELECT sum(g.amount)
FROM Expenses e, Gives g
where e.exid = g.exid and datepart(yy,g.date_budget) = 2015;
```



	(No column name)
1	8700.00

8. Display the gender and DOB of all the students

A:

Use: This query will let us the gender and birth details of all the students.

Query:

```
SELECT s.fname, s.lname, s.gender, s.DOB
FROM student s;
```



	fname	lname	gender	DOB
1	Jaffer	Ali	Male	2003-01-07
2	Kaushik	Dhamaseelan	Male	2003-02-05
3	Kamran	Yar Khan	Male	2002-05-01
4	Joe	Sno	Male	2004-02-23
5	Sharif	Cyri	Female	2001-03-15
6	Ali	Aeger	Male	2002-12-01
7	Sydney	Hall	Male	2004-11-22
8	Sunny	Adams	Male	2002-05-22
9	Mohammed	Ali	Male	2003-04-25
10	Ryan	Well	Male	2004-03-22
11	Samantha	David	Female	2002-02-21

9. How many students are enrolled in the daycare

A:

Use: This query will let us know the number of students who are enrolled in day care.

Query:

```
SELECT COUNT(*) AS no_of_students  
FROM Student  
WHERE stype = 'Daycare';
```



The screenshot shows a SQL query execution window with a 'Results' tab. The results table has one column, 'no_of_students', and one row with the value '10'. The status bar at the bottom indicates 'Query executed successfully.' and 'omnisb3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

	no_of_students
1	10

10. Display the number of employees living in zipcode 60115

A:

Use: This query will let us know the number of students living in a particular zipcode.

Query:

```
SELECT count(*) as no_of_employees  
FROM staff s, zipcode z  
where s.zipcode = z.zipcode and z.zipcode = '60115';
```



The screenshot shows a SQL query execution window with a 'Results' tab. The results table has one column, 'no_of_employees', and one row with the value '4'. The status bar at the bottom indicates 'Query executed successfully.' and 'omnisb3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

	no_of_employees
1	4

11. Display the number of students born in 2002

A:

Use: This query lets us know the number of students born in a particular year.

Query:

```
select count(*) as no_of_students
from student
where datepart(yy, DOB) = '2002';
```



no_of_students
7

Query executed successfully. | omisbi3 (11.0 SP1) | NIUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows

12. What is the number of classes taught per staff member?

A:

Use: This query will let us know the number of classes each staff member teaches.

Query:

```
SELECT fname, lname, count(*)
from Staff s, Class c
where s.eid = c.eid
group by fname, lname;
```



	fname	lname	(No column name)
1	Vincent	Abma	4
2	Carm	Arie	4
3	Roseanna	Branne	8
4	Stephany	Chantell	3
5	Sindy	Clayton	2
6	Nathaniel	Dakota	3
7	Yee	Georgetta	8
8	Stanton	Georgine	8
9	Okla	Idella	2
10	Roseann	Meehs	2
11	Ken	Rosella	4

Query executed successfully. | omisbi3 (11.0 SP1) | NIUNT\Z1790168 (173) | z1790168 | 00:00:00 | 11 rows

13. Display the number of boys in the school

A:

Use: This query will let us know the number of boys that has been enrolled in the school

Query:

```
select count(*) as boys
from student
where gender = 'Male';
```



The screenshot shows a SQL query execution window with two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with one column named 'boys' and one row containing the value '18'. The status bar at the bottom indicates 'Query executed successfully.' and provides details: 'omisbi3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

boys
18

14. Display the number of employees who are teachers

A:

Use: This query lets us know out of the employees how many are teaching faculty.

Query:

```
select count(*)
from Staff
where eid in (select eid from Class);
```



The screenshot shows a SQL query execution window with two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with one column labeled '(No column name)' and one row containing the value '11'. The status bar at the bottom indicates 'Query executed successfully.' and provides details: 'omisbi3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

(No column name)
11

--NOTE: I have set my database so that it is compulsory for all the teachers to take up at least one class

15. Display all students first name starting with 'D' and birth month 'April'

A:

Use: This query lets us know the details of the students whose names starts with a particular letter.

Query:

```
select fname, lname  
from Student  
where fname like 'D%' and datepart(mm,DOB) = '4';
```



The screenshot shows a SQL Server query results window. The 'Results' tab is active, displaying a table with two columns: 'fname' and 'lname'. There is one row of data with the values 'Dhya' and 'Mundada'. The status bar at the bottom indicates 'Query executed successfully.' and 'omishb3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

	fname	lname
1	Dhya	Mundada

16. How much spent on Gas in 2016

A:

Use: This query lets us know the amount of budget spent on a particular expense, here Gas.

Query:

```
select sum(amount) as sum  
from expenses e, gives g  
where e.type = 'Gas' and datepart(yy,date_budget) = 2016;
```



The screenshot shows a SQL Server query results window. The 'Results' tab is active, displaying a table with one column: 'sum'. There is one row of data with the value '7600.00'. The status bar at the bottom indicates 'Query executed successfully.' and 'omishb3 (11.0 SP1) | NIJUNT\Z1790168 (173) | z1790168 | 00:00:00 | 1 rows'.

	sum
1	7600.00

17. Display the salary of all employees, sort by highest

A:

Use: This query lets us know the per month salary of each employee.

Query:

```
select fname, lname, (e_hours * pay_rate * 4) as salary
from staff
order by salary desc;
```



The screenshot shows a database query results window with a table containing 11 rows of employee data. The columns are labeled 'fname', 'lname', and 'salary'. The data is sorted by salary in descending order. A status bar at the bottom indicates 'Query executed successfully' and '30 rows'.

	fname	lname	salary
1	Came	Arle	8560.00
2	Vincenzo	Alvina	8000.00
3	Ken	Rosella	7520.00
4	Roseanna	Brianne	7200.00
5	Stanton	Georgine	4800.00
6	Yee	Georgette	4480.00
7	Okla	Idalia	4000.00
8	Raeann	Meeha	4000.00
9	Sindy	Clayton	3920.00
10	Nathaniel	Dakota	3840.00
11	Stephany	Chantell	3680.00

18. Display the contact information (name and phone) of each students' parent/guardian. Sort by first name

A:

Use: This query lets us know the details of all the parents.

Query:

```
select fname, lname, phone_number
from parent
order by fname;
```



The screenshot shows a database query results window with a table containing 11 rows of parent/guardian data. The columns are labeled 'fname', 'lname', and 'phone_number'. The data is sorted by first name (fname) in ascending order. A status bar at the bottom indicates 'Query executed successfully' and '29 rows'.

	fname	lname	phone_number
1	Alfredo	Fayers	8335094551
2	Alfredo	Davies	8225269645
3	Anastacia	Davidson	8118786766
4	Ardella	Clark	8986675897
5	Ayub	Ali	8155935635
6	Cleveland	Churchill	8228154263
7	Danny	Cameron	8449656600
8	Darin	Campbell	8118026211
9	Deanna	Coleman	8335383542
10	Del	Rajapopalan	8228179532
11	Enrique	Chapman	8222061816

19. Display the names of students along with their parent's names (include if more than one parent).

A:

Use: This query lets us know the names of all the students along with their parents names.

Query:

```
select s.fname as s_fname, s.lname as s_lname, p.fname as p_fname, p.lname as  
p_lname  
from student s, parent p, has h  
where s.sid = h.sid and h.pid = p.pid;
```



	s_fname	s_lname	p_fname	p_lname
1	Kaushik	Dharmaseelan	Royd	Kynick
2	Kannan	Yar Khan	Fela	Crompton
3	Ali	Aggar	Ivory	Peattie
4	Sydney	Hall	Nicole	Dowd
5	Ryan	Well	Danny	Cameron
6	Samantha	David	Deanna	Coleman
7	Zachery	Malynda	Dal	Pejagopalan
8	Maryam	Bennett	Sandy	Hanks
9	Nanneke	Kimberle	Sergio	Charata
10	Divya	Mundada	Wilmer	Bok
11	Fairy	Genevive	Wilmer	Bok

Query executed successfully. omisbi3 (11.0 SP1) NIJUNT\Z1790168 (173) z1790168 00:00:00 51 rows

20. Display the details of students who have enrolled in course 'Algebra'

A:

Use: This query lets us know the names of the students who have enrolled in a particular course, here Algebra.

Query:

```
select s.fname, s.lname  
from student s, takes t, class cl, course c  
where s.sid = t.sid and t.cl_id = cl.class_id and cl.course_id = c.course_id and  
c.c_name = 'Algebra';
```



	fname	lname
1	Sherly	Cyrl
2	Mohammed	Ali
3	Ryan	Well

Query executed successfully. omisbi3 (11.0 SP1) NIJUNT\Z1790168 (173) z1790168 00:00:00 3 rows