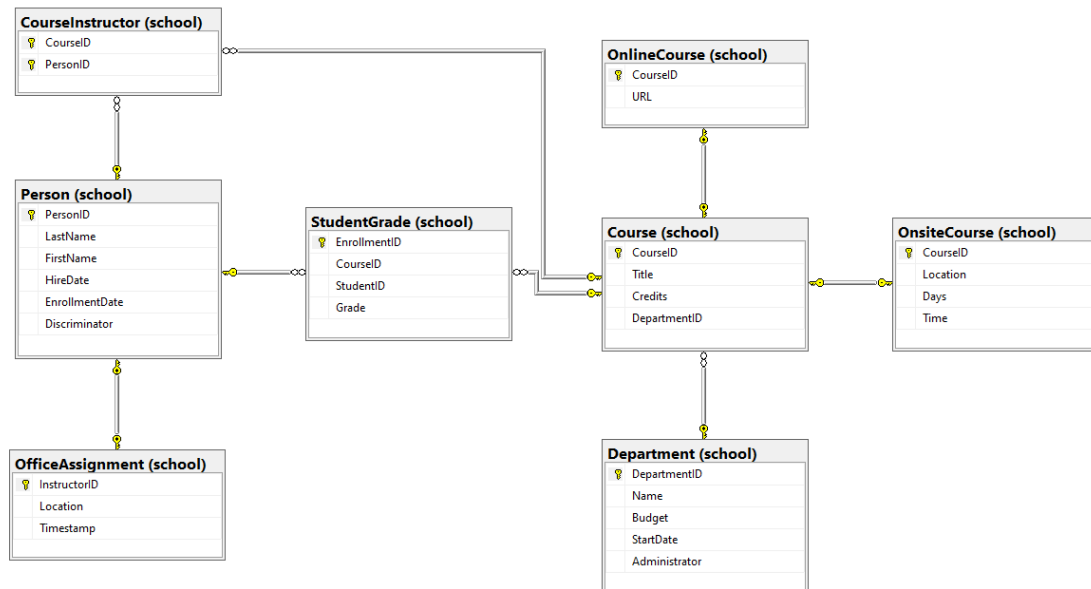


Esercizio SQL

<https://www.sqlservertutorial.net/>

Prendere in considerazione il database School rappresentato dal seguente diagramma



e scrivere le istruzioni SQL necessarie per estrarre le seguenti informazioni:

1. il budget medio dei dipartimenti

```
select avg(budget) from Department
```

Risultati		Messaggi	
(Nessun nome di colonna)			
1	230000,00		

2. i dipartimenti che hanno un budget superiore alla media

```
select name from Department
where budget > (select avg(budget) from Department)
```

Risultati		Messaggi	
	name		
1	Engineering		
2	Mathematics		

3. il dipartimento con il budget più alto

```
select name from Department
where budget = (select max(budget) from Department)
```

	name
1	Engineering

4. l'elenco dei dipendenti

```
select LastName,FirstName from Person
where discriminator = 'Instructor'
```

	LastName	FirstName
1	Abercrombie	Kim
2	Fakhouri	Fadi
3	Harui	Roger
4	Zheng	Roger
5	Kapoor	Candace
6	Serrano	Stacy
7	Stewart	Jasmine
8	Xu	Kristen
9	Van Houten	Roger

5. il numero di studenti

```
select count(discriminator) as n_studenti from Person
where discriminator = 'student'
```

	n_studenti
1	25

6. le persone che si chiamano Roger

```
select FirstName,LastName from Person
where FirstName = 'Roger'
```

	FirstName	LastName
1	Roger	Harui
2	Roger	Zheng
3	Roger	Holt
4	Roger	Van Houten

7. gli studenti che si chiamano Roger

```
select FirstName,LastName from Person
where FirstName = 'Roger' and Discriminator = 'student'
```

	FirstName	LastName
1	Roger	Holt

8. l'elenco degli studenti in ordine alfabetico

```
select LastName,FirstName from Person
where Discriminator = 'student' order by LastName asc
```

	LastName	FirstName
1	Alexander	Carson
2	Alonso	Meredith
3	Anand	Arturo
4	Barzdukas	Gytis
5	Browning	Meredith
6	Bryant	Carson
7	Carlson	Robyn
8	Gao	Erica
9	Griffin	Rachel
10	Holt	Roger
11	Jai	Damien
12	Justice	Peggy
13	Li	Yan
14	Lopez	Sophia
15	Martin	Randall
16	Morgan	Isaiah
17	Norman	Laura
18	Olivotto	Nino

9. gli studenti che si sono iscritti nel 2000

```
select LastName,FirstName from Person
where Discriminator = 'student' and YEAR(EnrollmentDate) = 2000
```

	LastName	FirstName
1	Browning	Meredith
2	Walker	Alexandra

10. il dipendente che ha l'anzianità più alta

```
Select FirstName,LastName from Person
where Discriminator = 'Instructor' and HireDate = (select min(HireDate)
from Person)
```

	FirstName	LastName
1	Kim	Abercrombie

11. i nomi dei corsi onsite

```
select Title from Course
INNER JOIN OnsiteCourse on
Course.CourseID = OnsiteCourse.ID
```

12. i nomi dei corsi online

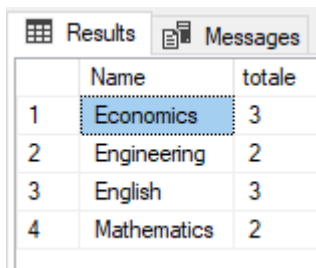
```
select Title from Course
INNER JOIN OnlineCourse on
Course.CourseID = OnlineCourse.ID
```

13. il nomi dei corsi e i nomi dei dipartimenti di appartenenza

```
select Course.Title, Department.Name from school.Course
inner join school.Department on
Course.DepartmentID = Department.DepartmentID
```

14. il numero di corsi per ogni dipartimento

```
Select Name, count(*) as totale
from department
inner join Course on
department.departmentID = Course.departmentID
group by department.Name
```



	Name	totale
1	Economics	3
2	Engineering	2
3	English	3
4	Mathematics	2

15. i dipartimenti con più di 3 corsi

```
Select Name, count(*) from school.department
inner join school.Course on
school.department.departmentID = school.Course.deartmentID
group by school.department.Name
having count(*) > 3
```

16. il dipartimento con più corsi

```
Select Name, count(*) from department
inner join Course on
department.departmentID = Course.DepartmentID
group by department.Name
having count(*) = (

Select max(totale) from
(Select count(*) as totale
from department
```

```
inner join Course on  
department.departmentID = Course.departmentID  
group by department.Name) as t)
```

or

<https://www.sqlsvertutorial.net/sql-server-views/>

```
create view department_courses  
as  
select Name, count(*) as totale  
from department  
inner join Course on  
department.departmentID = Course.DepartmentID  
group by department.Name
```

```
select * from department_courses  
where totale =  
(select max(totale) from department_courses)
```