```
--1.Retrieve number of students who have a value in their age.
select count(*)
from Student
where St_Age is not null

--2.Get all instructors Names without repetition
select distinct ins_name from Instructor
where ins_name is not null -- to eliminate NULL names as ins_name is not pk so it can be
null
```

3- Display student with the following Format (use isNull function)

Student ID	Student Full Name	Department name

```
select st_id as "Student ID", isnull(St_Fname,'')+' '+isnull(St_Lname,'') as "Student
Name" , Dept_name as "Department Name"
from Student,Department
where student.Dept_Id=Department.Dept_Id
```

```sql
--4.Display instructor Name and Department Name  Note: display all the instructors ifthey
are attached to a department or not.
 select * from Instructor left join Department
 on Instructor.Dept_Id=Department.Dept_Id

 --5.Display student full name and the name of the course he is taking For only courses
 which have a grade
 select st_fname,Crs_Name,Grade
 from Student join Stud_Course
 on student.St_Id=Stud_Course.St_Id
  join course on course.Crs_Id=stud_course.Crs_Id

 --6.Display number of courses for each topic name
 Select topic.Top_Name, count(Course.crs_id) as "Number of courses"
 from topic,Course
 where topic.Top_Id=Course.Top_Id
 group by topic.Top_Name

 --7.Display max and min salary for instructors
 select max(salary)as "Instructors Maximum Salary", min(salary) as "Instructors minimum
 Salary"
 from Instructor

 --8.Display instructors who have salaries less than the average salary of all
 instructors.
 select ins_id as "Instructor ID", ins_name as "Instructor Name", salary as "salary"
 from instructor
 where salary < ( select avg(isnull(salary,0)) from Instructor)

 -- 9.Display the Department name that contains the instructor who receives the minimum
 salary.
 select Dept_Name as "Department Name" ,Ins_Name as "Instructor Name"
 from Instructor, Department
 where Instructor.Dept_Id=Department.dept_id and salary = ( select min(salary) from
 Instructor)

 --10.Select max two salaries in instructor table.
 select * from
 (
 select ins_name, salary,
 ROW_NUMBER() over( order by salary desc) t
 from Instructor
 ) c
  where t in(1,2)

 --11.Select instructor name and his salary but if there is no salary display instructor
 bonus keyword. "use coalesce Function"
 select coalesce(convert(varchar(20),salary), 'instructor bounce') from Instructor

 --12.Select Average Salary for instructors
 select avg(isnull(salary,0)) from Instructor -- avg salary of all instrcutors whether
 they get paid or not


 13.Select Student first name and the data of his supervisor
 select normal.St_Fname as "Student first name" ,super.*
 from Student normal, student super where    super.St_Id= normal.St_super
```

```sql
--14.  Write a query to select the highest two salaries in Each Department for
instructors who have salaries."using one of Ranking Functions"
select * from
(
select
row_number() over ( partition by instructor.Dept_Id order by salary desc) as "Ranks"
,instructor.Dept_Id
,ins_id,Ins_Name
,salary
from Instructor,Department
where Instructor.Dept_Id=Department.Dept_id
) as "new_table"
where Ranks in(1,2)
```