# SQL Assignment 2

Q1. Write an SQL query to find the maximum, minimum, and average salary of the employees.

Ans. select max(salary) as max_s, min(salary) as min_s, avg(salary) as avg_s
    from employees;

Q2. Write an SQL query to find the employee id whose salary lies in the range of 9000 and 15000.

Ans. select employeeid ,salary
    from employees
    where salary >= 9000 and salary <= 15000;

Q3.Write an SQL query to fetch the name of employees who either live in California or work under a manager with ManagerId – 321.(Table name is employees. City column contains all the cities like california. And managerid column contains managerid.)

Ans. select name from employees where city = "California" or managerid = "321"

Q4.fetch the employees whose address contains 4 characters. (table name = employees ; column names = name ,address, country)

Ans. select name ,address, country from employees where length(address) = 4;

Q5.fetch the records where first character of name is "f" and whose country is INDIA. (table name = team ; column name = name, country, age,group)

Ans. select * from team where name like 'f%' and country = 'INDIA' ;

Q6.fetch the total number of students having percentage between 70 to 90 and group them up by gender.(table name = students ; column names = name , percentage, country , gender).

Ans. select count(name),percentage, gender from students where percentage between 70 and 90 group by gender;

Q7. fetch the students whose address should be pune and bangalore and country name starting with "I".(table name = students ; column names = name,address,country,gemder).

Ans. select name,address from students where address in ('pune','banglore') and country like "i%";

Q8.How inner join is different from right join? ( short answer only max 2 lines).

Ans. INNER JOIN: returns rows when there is a match in both tables.
     LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table.

Q9.what is the difference between right and left join ? (only one main difference).

Ans.  LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table.
      RIGHT JOIN: returns all rows from the right table, even if there are no matches in the left table.

Q10. How Group by is different from Order by clause? ( short answer only)

Ans. Group by statement is used to group the rows that have the same value.
     Order by statement sort the columns in either in ascending or in descending order.

Q11. what is the main use of JOINS? (define in one sentence only)

Ans. A JOIN clause is used to combine (merge) data from two or more tables

Q12.What is the main purpose of SQL?

Ans. The purpose of SQL is to manipulate data sets. SQL is used to communicate with a database.

Q13. fetch the name and salary from employees table and department_name from department table by using an inner joins.

Ans. select e.name, e.salary d.department_name
     from employees e inner join department d on e.id=d.id;

("id" is the common column in both the tables.)

Q14. fetch name , salary from employees which is our left table and address from country table.Here you need to fetch all the records from left and only common records from right table i.e country.(common column in both the tables is "ID")

Ans. select e.name, e.salary, c.address
     from employees e left join country c on e.ID=c.ID;

Q15. Define Cross join and Full Join?

Ans. Cross join gives cartision product i.e gives gives all the possible output and full join is a combination of left join and right join where it join all data.