**SQL Queries for Employee DB**

**ON DELETE CASCADE** - ON DELETE CASCADE constraint is used in MySQL to delete the rows from the child table automatically, when the rows from the parent table are deleted.

**ON DELETE RESTRICT** means you can't delete a given parent row if a child row exists that references the value for that parent row.

Eg: **FOREIGN KEY (Super\_ssn) REFERENCES EMPLOYEE (Ssn) ON DELETE CASCADE**|SET NULL|RESTRICT.

ON UPDATE CASCADE|SET NULL|RESTRICT

1) Display all the details of all employees working in the company.

select \* from employee;

2) Display ssn, lname, fname, address of employees who work in department no 7.

select ssn,lname,fname,address from employee where dno=7;

3) Retrieve the birthdate and address of the employee whose name is 'Franklin T.Wong'

select bdate,address from employee where fname="Franklin" and minit="T" and lname="Wong";

4) Retrieve the name and salary of every employee

select fname,mname,lname,salary from employee;

5) Retrieve all distinct salary values

select distinct salary from employee;

6) Retrieve all employee names whose address is in ‘Bellaire’

select fname,mname,lname from employee where address like “%Bellaire%";

7) Retrieve all employees who were born during the 1950s

select fname from employee where bdate like ‘195%’;

8) Retrieve all employees in department 5 whose salary is between 50,000 and 60,000(inclusive)

select \* from employee where dno=5 and salary >=50000 and salary<=60000;

9) Retrieve the names of all employees who do not have supervisors

select fname,mname,lname from employee where superssn is null;

10) Retrieve SSN and department name for all employees

select e.ssn, d.dname from employee e, department d;

11) Retrieve the name and address of all employees who work for the 'Research' department

select e.fname, e.address from employee e, department d where d.dname="Research" and d.dnumber = e.dno;

or

select fname, address from employee where dno in (select dnumber from department where dname =’research’); (Nested Query)

12) For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birthdate

select p.pnumber,p.dnum,e.lname,e.address,e.bdate

from project p, department d, employee e

where p.plocation="Stafford" and p.dnum= d.dnumber and d.mgrssn=e.ssn;

13) For each employee, retrieve the employee's name, and the name of his or her immediate supervisor

select e.fname,e.lname,s.fname,s.lname

from employee as e, employee as s

where s.superssn=e.ssn;

14) Retrieve all combinations of Employee Name and Department Name

select e.fname,e.lname,d.dname

from employee e, department d;

15) Make a list of all project numbers for projects that involve an employee whose last name is 'Narayan’ either as a worker or as a manager of the department that controls the project

(select distinct pnumber

from project,department,employee

where dnum=dnumber and mgrssn=ssn and lname="Narayan")

union

(select distinct pnumber

from project,works\_on,employee

where pnumber=pno and essn=ssn and lname="Narayan");

16) Increase the salary of all employees working on the 'ProductX' project by 15% .

select fname,lname.1.1\*salary as increased\_sal

from employee,works\_on,project

where ssn=essn and pno=pnumber and pname="productX";

\*\*updating in DB

17) Retrieve a list of employees and the project name each works in, ordered by the employee's department, and within each department ordered alphabetically by employee first name

select dname,lname,fname,pname

from department,employee,works\_on,project

where dnumber=dno and ssn=essn and pno=pnumber

order by dname,lname,fname;

18) Select the names of employees whose salary greater than salary of any employee in department 10

select fname

from employee

where salary > all(select salary from employee where dno=10);

19) Retrieve the name of each employee who has a dependent with the same first name and same sex as the employee

select e.fname,e.lname

from employee as e

where e.ssn in (select essn from dependent where

e.fname=dependent\_name and e.sex=sex);

20) Find the sum of the salaries of all employees, the maximum salary, the minimum salary, and the average salary. Display with proper headings

select sum(salary),max(salary),min(salary),avg(salary)

from employee;

21) Find the sum of the salaries and number of employees of all employees of the ‘Marketing’ department, as well as the maximum salary, the minimum salary, and the average salary in this department

select sum(salary),count(\*)

from employee, department

where dname like "market%";

22) Select the names of employees whose salary is greater than the average salary of all employees in department 10

select fname

from employee

where dno=10

group by salary

having salary>avg(salary);

23) For each department, retrieve the department number, the number of employees in the department, and their average salary

select dno,count(\*),avg(salary)

from employee

group by dno;

24) For each project, retrieve the project number, the project name, and the number of employees who work on that project

select pnumber,pname,count(\*)

from project

group by pnumber;

25) Change the location and controlling department number for all projects having more than 5 employees to ‘Bellaire’ and 6 respectively

update project

set plocation="Bellaire", dnum=6

where (select count(essn)

from works\_on

where pno=pnumber)>5;

26) For each department having more than 10 employees, retrieve the department no, no of employees drawing more than 40,000 as salary

select dno

from employee

where salary>40000

group by dno

having count(\*)>10;

27) Insert a record in Project table which violates referential integrity constraint with respect to Department number. Now remove the violation by making necessary insertion in the Department table.

insert into project values("Research and development",25,"Bhopal",9);

/\* The above query will give an error since there exists no

department with department number 9 exixts in the department table \*/

/\* To remove this error, we create a record in table department

with dnumber as 9 \*/

insert into department values("Research",9,"123","20-08-2012");

28) Delete all dependents of employee whose ssn is ‘123456789’

delete from dependent

where essn=123456789;

29) Perform a query using alter command to drop/add field and a constraint in Employee table.

alter table drop foreign key(superssn);