Q) Retrieve the cross product of college and department.

mysql> select \*

-> from college,department;

+------------+----------------+----------------+---------+----------------------+-------------+--------+------+

| college\_id | college\_name | principal\_name | dept\_id | dept\_name | hod\_name | intake | c\_id |

+------------+----------------+----------------+---------+----------------------+-------------+--------+------+

| 1 | DJ Sanghvi COE | Hari V. | 1 | Computer Engineering | Narendra S. | 120 | 1 |

| 2 | TSEC | Merlyn A. | 1 | Computer Engineering | Narendra S. | 120 | 1 |

| 3 | KC | Indu S. | 1 | Computer Engineering | Narendra S. | 120 | 1 |

| 4 | Jai Hind | Ashok V. | 1 | Computer Engineering | Narendra S. | 120 | 1 |

| 5 | Gbms | Pratik B. | 1 | Computer Engineering | Narendra S. | 120 | 1 |

| 1 | DJ Sanghvi COE | Hari V. | 2 | Information Tech. | Rajat B. | 60 | 1 |

| 2 | TSEC | Merlyn A. | 2 | Information Tech. | Rajat B. | 60 | 1 |

| 3 | KC | Indu S. | 2 | Information Tech. | Rajat B. | 60 | 1 |

| 4 | Jai Hind | Ashok V. | 2 | Information Tech. | Rajat B. | 60 | 1 |

| 5 | Gbms | Pratik B. | 2 | Information Tech. | Rajat B. | 60 | 1 |

| 1 | DJ Sanghvi COE | Hari V. | 3 | Production | Hari V. | 60 | 1 |

| 2 | TSEC | Merlyn A. | 3 | Production | Hari V. | 60 | 1 |

| 3 | KC | Indu S. | 3 | Production | Hari V. | 60 | 1 |

| 4 | Jai Hind | Ashok V. | 3 | Production | Hari V. | 60 | 1 |

| 5 | Gbms | Pratik B. | 3 | Production | Hari V. | 60 | 1 |

| 1 | DJ Sanghvi COE | Hari V. | 4 | Mechanical | Rushabh D. | 120 | 1 |

| 2 | TSEC | Merlyn A. | 4 | Mechanical | Rushabh D. | 120 | 1 |

| 3 | KC | Indu S. | 4 | Mechanical | Rushabh D. | 120 | 1 |

| 4 | Jai Hind | Ashok V. | 4 | Mechanical | Rushabh D. | 120 | 1 |

| 5 | Gbms | Pratik B. | 4 | Mechanical | Rushabh D. | 120 | 1 |

| 1 | DJ Sanghvi COE | Hari V. | 5 | Bio Med | Rosanlal B. | 60 | 1 |

| 2 | TSEC | Merlyn A. | 5 | Bio Med | Rosanlal B. | 60 | 1 |

| 3 | KC | Indu S. | 5 | Bio Med | Rosanlal B. | 60 | 1 |

| 4 | Jai Hind | Ashok V. | 5 | Bio Med | Rosanlal B. | 60 | 1 |

| 5 | Gbms | Pratik B. | 5 | Bio Med | Rosanlal B. | 60 | 1 |

+------------+----------------+----------------+---------+----------------------+-------------+--------+------+

25 rows in set (0.00 sec)

Q) Retrieve department id of all departments which have c\_id=1

mysql> select dept\_id

-> from department

-> where c\_id=1;

+---------+

| dept\_id |

+---------+

| 1 |

| 2 |

| 3 |

| 4 |

| 5 |

+---------+

5 rows in set (0.00 sec)

Q) Retrieve all exam course name from employees;

mysql> select all e\_course\_name from exam;

+---------------+

| e\_course\_name |

+---------------+

| Intro to CS |

| OOP |

| DS |

| WD |

| Maths 1 |

+---------------+

5 rows in set (0.00 sec)

Q) Retrive all student names having student id starting with '641400'

select student\_name

from student

where student\_id like '641400\_\_';

+--------------+

| student\_name |

+--------------+

| Rajat B. |

| Rushabh D. |

| Chiru J. |

| Niki J. |

| Dhruvil M. |

+--------------+

5 rows in set (0.03 sec)

Q) Retrive all student names who have gender = M

select student\_name

from student

where gender = 'M';

+--------------+

| student\_name |

+--------------+

| Rajat B. |

| Rushabh D. |

| Chiru J. |

| Dhruvil M. |

+--------------+

4 rows in set (0.00 sec)

Q) Retrieve total number of employees.

select count(\*)

from employee;

+----------+

| count(\*) |

+----------+

| 10 |

+----------+

1 row in set (0.01 sec)

Q) Retrieve total number of credit hours

select sum(no\_of\_credit\_hours)

from course;

+-------------------------+

| sum(no\_of\_credit\_hours) |

+-------------------------+

| 46 |

+-------------------------+

1 row in set (0.03 sec)

Q)-Retrive distinct qualification from teaching staff

mysql> select distinct qualification from teaching\_staff;

+---------------+

| qualification |

+---------------+

| Grad |

| Post Grad |

+---------------+

2 rows in set (0.00 sec)

Q)retrive all course names from courses

mysql> select all course\_name

-> from course;

+-----------------+

| course\_name |

+-----------------+

| Intro to CS |

| Maths 1 |

| OOP |

| Data Structures |

| Web Development |

+-----------------+

5 rows in set (0.00 sec)

mysql> alter table employee

-> ADD (salary int);

Query OK, 0 rows affected (0.91 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> update employee

set salary = 100000

where employee\_id=641408;

update employee

set salary = 200000

where employee\_id=641413;

update employee

set salary = 200000

where employee\_id=641418;

update employee

set salary = 100000

where employee\_id=641429;

update employee

set salary = 200000

where employee\_id=641432;

update employee

set salary = 50000

where employee\_id=641409;

update employee

set salary = 50000

where employee\_id=641419;

update employee

set salary = 50000

where employee\_id=641451;

mysql> select \* from employee;

+-------------+---------------+------------+--------+--------+

| employee\_id | employee\_name | start\_date | col\_id | salary |

+-------------+---------------+------------+--------+--------+

| 641408 | RMB | 1996-02-18 | 1 | 100000 |

| 641409 | PB | 1996-02-18 | 1 | 50000 |

| 641413 | GD | 1996-10-17 | 1 | 200000 |

| 641418 | RAD | 1996-01-16 | 1 | 200000 |

| 641419 | KD | 1996-01-16 | 1 | 50000 |

| 641429 | CNJ | 1996-11-22 | 1 | 100000 |

| 641432 | NBJ | 1996-04-24 | 1 | 200000 |

| 641451 | VM | 1996-12-12 | 1 | 50000 |

| 641457 | DPM | 1996-10-17 | 1 | NULL |

| 641478 | NP | 1996-04-24 | 1 | NULL |

+-------------+---------------+------------+--------+--------+

10 rows in set (0.00 sec)

Q) Retrieve all employees in college no.1 whose salary is between 90000 and 200000

select \*

from employee

where (salary between 90000 and 200000) and col\_id=1;

+-------------+---------------+------------+--------+--------+

| employee\_id | employee\_name | start\_date | col\_id | salary |

+-------------+---------------+------------+--------+--------+

| 641408 | RMB | 1996-02-18 | 1 | 100000 |

| 641413 | GD | 1996-10-17 | 1 | 200000 |

| 641418 | RAD | 1996-01-16 | 1 | 200000 |

| 641429 | CNJ | 1996-11-22 | 1 | 100000 |

| 641432 | NBJ | 1996-04-24 | 1 | 200000 |

+-------------+---------------+------------+--------+--------+

5 rows in set (0.00 sec)

Q) Retrieve employee id, name of all employees who work for college number 1 ordered alphabetically in ascending order by employee name.

select employee\_id, employee\_name

from employee

where col\_id=1

order by employee\_name desc;

+-------------+---------------+

| employee\_id | employee\_name |

+-------------+---------------+

| 641451 | VM |

| 641408 | RMB |

| 641418 | RAD |

| 641409 | PB |

| 641478 | NP |

| 641432 | NBJ |

| 641419 | KD |

| 641413 | GD |

| 641457 | DPM |

| 641429 | CNJ |

+-------------+---------------+

10 rows in set (0.01 sec)

Q) Retrieve names of all employees who do not get salary.

select ename

from employee

where salary is null;

+---------------+

| employee\_name |

+---------------+

| DPM |

| NP |

+---------------+

2 rows in set (0.00 sec)

update employee

set salary = 500000

where employee\_id=641457;

update employee

set salary = 20000

where employee\_id=641478;

mysql> select \* from employee

-> ;

+-------------+---------------+------------+--------+--------+

| employee\_id | employee\_name | start\_date | col\_id | salary |

+-------------+---------------+------------+--------+--------+

| 641408 | RMB | 1996-02-18 | 1 | 100000 |

| 641409 | PB | 1996-02-18 | 1 | 50000 |

| 641413 | GD | 1996-10-17 | 1 | 200000 |

| 641418 | RAD | 1996-01-16 | 1 | 200000 |

| 641419 | KD | 1996-01-16 | 1 | 50000 |

| 641429 | CNJ | 1996-11-22 | 1 | 100000 |

| 641432 | NBJ | 1996-04-24 | 1 | 200000 |

| 641451 | VM | 1996-12-12 | 1 | 50000 |

| 641457 | DPM | 1996-10-17 | 1 | 500000 |

| 641478 | NP | 1996-04-24 | 1 | 20000 |

+-------------+---------------+------------+--------+--------+

10 rows in set (0.00 sec)

Q) Retrieve maximum salary offered to employees

select max(salary)

from employee;

+-------------+

| max(salary) |

+-------------+

| 500000 |

+-------------+

1 row in set (0.06 sec)

Q) Retrieve minimum salary offered to employees

select min(salary)

from employee;

+-------------+

| min(salary) |

+-------------+

| 20000 |

+-------------+

1 row in set (0.00 sec)

alter table employee

add (works\_for\_dno int);

update employee

set works\_for\_dno= 1

where employee\_id=641408;

update employee

set works\_for\_dno = 2

where employee\_id=641413;

update employee

set works\_for\_dno = 2

where employee\_id=641418;

update employee

set works\_for\_dno = 1

where employee\_id=641429;

update employee

set works\_for\_dno= 2

where employee\_id=641432;

Q) Retrieve average salary given to employees

select employee\_name, employee\_id, dept\_id, avg(salary)

from employee, department

where dept\_id=works\_for\_dno

group by works\_for\_dno

having avg(salary)>100000;

+---------------+-------------+---------+-------------+

| employee\_name | employee\_id | dept\_id | avg(salary) |

+---------------+-------------+---------+-------------+

| GD | 641413 | 2 | 200000.0000 |

+---------------+-------------+---------+-------------+

1 row in set (0.00 sec)