

5_output

1> Retrieve information (SSN, first name and last name) about students who took the course 'Computer Architecture'.

ANS:

```
select distinct student.ssn,student.first_name,student.last_name from
student,enrolls,course,section where course.COURSE_NAME='Comp_Architecture' and
student.ssn=enrolls.ssn and enrolls.courseno=section.courseno and
section.courseno=course.courseno;
```

RESULT:

SSN	FIRST_NAME	LAST_NAME
999112222	John	Smith

2> Get the information (SSN, first name and last name) about students who have taken the course 'VLSI'. Also get the section number in which they have enrolled in the course.

ANS:

```
select student.ssn,student.first_name,student.last_name,section.sectionno from
student,enrolls,course,section where course.COURSE_NAME='VLSI' and
student.ssn=enrolls.ssn and enrolls.courseno=section.courseno and
section.courseno=course.courseno;
```

RESULT:

SSN	FIRST_NAME	LAST_NAME	SECTIONNO
888112311	Ahmad	Patel	1

3> Get the course names and course numbers which have 2 or more students.

ANS:

```
select course.courseno, course.course_name from course where( select count(*) from
student,section,enrolls where enrolls.ssn=student.ssn and
course.courseno=section.courseno and section.courseno=enrolls.courseno and
section.sectionno=enrolls.sectionno)>=2;
```

RESULT:

COURSENO	COURSE_NAME
C11	Database management

4> Retrieve the information (SSN, first name and last name) of students who got Grade 'A' in at least two exams.

ANS:

```
select s.ssn,s.first_name,s.last_name from student s where (select count(*) from takes t where t.result='A' and s.ssn=t.ssn)>2;
```

RESULT:

SSN	FIRST_NAME	LAST_NAME
998289901	Srinivas	Basani

5> Obtain information (exam number, course number and section number) about the exams taking place in building 'Mendoccino Hall'. Along with that get the room's capacity, room number and its building name.

ANS:

```
select c.examno,c.courseno,c.sectionno,r.roomno,r.building,r.capacity from conducted_in c, classroom r where c.building=r.building and r.building='Mendoccino_Hall';
```

RESULT:

EXAMNO	COURSENO	SECTIONNO	ROOMNO	BUILDING	CAPACITY
1	E110	1	5	Mendoccino_Hall	45
2	E110	1	5	Mendoccino_Hall	45

6>Retrieve information (SSN, first name and last name) about students who are

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enrolled in both the courses 'C11 and 'C21'. ('C11' and 'C21' are course numbers)
(hint: use INTERSECT)

ANS:

```
select distinct s.ssn,s.first_name,s.last_name from student s,enrolls e,course c,
section sec where s.ssn=e.ssn and e.courseno=sec.courseno and c.courseno='C11' and
c.courseno=sec.courseno intersect select distinct s.ssn,s.first_name,s.last_name
from student s,enrolls e,course c, section sec where s.ssn=e.ssn and
e.courseno=sec.courseno and c.courseno='C21' and c.courseno=sec.courseno;
```

RESULT:

SSN	FIRST_NAME	LAST_NAME
999112222	John	Smith

7> Retrieve the courses that have more than 2 sections. (List course name and number of sections)

ANS:

```
select course.course_name, count(section.sectionno) as NUMBER_OF_SECTION from
course,section where section.courseno=course.courseno group by course.course_name
having count(section.sectionno)>2;
```

RESULT:

COURSE_NAME	NUMBER_OF_SECTION
Comp_Architecture	3
Analog Circuits	3