

1) Retrieve information (SSN, first name and last name) about students who take the course 'Database Management Systems'.

```
SELECT Student.SSN,FirstName,LastName
FROM Student,Enrolls,Course
WHERE Student.SSN = Enrolls.SSN AND Enrolls.CourseNo = Course.CourseNo
AND CourseName = 'Database Management Systems';
```

SSN	FirstName	LastName
262556453	Katie	Black
1 row in set (0,00 sec)		

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

```
SELECT Course.CourseName AS 'Course',COUNT(DISTINCT Section.SectionNo)
AS '# of Sections'
FROM Course,Section
WHERE Course.CourseNo = Section.CourseNo
GROUP BY Course.CourseNo
HAVING COUNT(DISTINCT Section.SectionNo) > 2;
```

Course	# of Sections
Object-Oriented Computer Graphics	3
1 row in set (0,00 sec)	

3) List each course number, course name and section number which have 3 or more students in the section.

```
SELECT Enrolls.CourseNo,Enrolls.SectionNo,Course.CourseName
FROM Enrolls,Course
WHERE Enrolls.CourseNo = Course.CourseNo
GROUP BY Enrolls.CourseNo,Enrolls.SectionNo
HAVING COUNT(DISTINCT Enrolls.SSN) >= 3;
```

CourseNo	SectionNo	CourseName
CSC133	12	Object-Oriented Computer Graphics
CSC137	2	Computer Organization
MATH26B	1	Calculus I
3 rows in set (0,00 sec)		

4) Retrieve the information (SSN, first name, and last name) of students who got Grade 'A' in at least 3 exams.

```
SELECT Student.SSN, Student.FirstName, Student.LastName
FROM Student INNER JOIN Takes ON Student.SSN = Takes.SSN
GROUP BY Student.SSN, Student.FirstName, Student.LastName, Takes.Result
HAVING COUNT(Takes.Result) >= 3 AND Takes.Result = 'A'
ORDER BY Student.SSN;
```

SSN	FirstName	LastName
123890365	Jenny	Craigs

1 row in set (0.00 sec)

5) Obtain information (exam number, exam date, course number and section number) about exams taking place in building 'RVR'. Along with that get the room's capacity and room number.

```
SELECT Exam.ExamNo, Exam.E_Date, Exam.CourseNo, Exam.SectionNo,
ClassRoom.Capacity, ClassRoom.RoomNo
FROM      (SELECT *
           FROM ConductedIn
           WHERE ConductedIn.Building = 'RVR'
          ) AS rvr
INNER JOIN Exam ON rvr.CourseNo = Exam.CourseNo AND rvr.SectionNo =
Exam.SectionNo
           AND rvr.ExamNo = Exam.ExamNo
INNER JOIN ClassRoom ON rvr.RoomNo = ClassRoom.RoomNo AND
rvr.Building = ClassRoom.Building;
```

ExamNo	E_Date	CourseNo	SectionNo	Capacity	RoomNo
13	2017-09-03	PHIL4	1	25	1002
15	2017-12-03	PHIL4	1	25	1002
1	2017-04-09	CSC133	8	30	5029

3 rows in set (0.00 sec)

6) Retrieve information (SSN, first name and last name) about students who are enrolled in both the course 'CSC133' and 'CSC137'. 'CSC133' and 'CSC137' are both course numbers.

```
SELECT Student.SSN, Student.FirstName, Student.LastName
FROM Student,Enrolls
WHERE Student.SSN IN      (SELECT Student.SSN
                           FROM Student,Enrolls
                           WHERE Student.SSN = Enrolls.SSN AND Enrolls.CourseNo =
'CSC133')
      AND Student.SSN = Enrolls.SSN AND Enrolls.CourseNo = 'CSC137';
```

SSN	FirstName	LastName
123890365	Jenny	Craigs
262556453	Katie	Black
411996126	Tom	Hansen

3 rows in set (0.00 sec)

7) Get the information (SSN, first name and last name) about students who take the course 'Data structure and algorithms'. Also get the section number in which they have enrolled in the course, as well as the instructor of the section.

```
SELECT Student.SSN, Student.FirstName, Student.LastName,
Section.SectionNo, Section.Instructor
FROM Student,Enrolls,Course,Section
WHERE Student.SSN = Enrolls.SSN AND Enrolls.CourseNo = Course.CourseNo
      AND Enrolls.CourseNo = Section.CourseNo AND Enrolls.SectionNo =
Section.SectionNo
      AND Course.CourseName = 'Data Structure and Algorithms';
```

SSN	FirstName	LastName	SectionNo	Instructor
368989472	Austin	Powers	5	Y. Chen

1 row in set (0.00 sec)