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USE university_sql_prorejt_schema;

-- //The average grade that is given by each professor
SELECT
p.professors_name AS 'Professors',
AVG (grades_grades) AS 'Average'
FROM professors p
JOIN grades g
ON p.professors_class = g.grades_courses
GROUP BY p.professors_name;

-- //The top grades for each student
SELECT
s.students_name AS 'Students Name',
MAX(grades_grades) AS 'Best grades'
FROM grades g
JOIN students s
ON s.students_id = g.grades_id
GROUP BY g.grades_id;

-- //Group students by the courses that they are enrolled in
SELECT COUNT(grades_courses) as 'Enrolled',
c.courses_name as 'Grades'
FROM grades g
JOIN courses c
ON g.grades_courses = c.courses_id
GROUP BY c.courses_id;

-- //Create a summary report of courses and their average grades,
-- sorted by the most challenging course (course with the lowest
average grade) to the easiest course
SELECT
courses_name AS 'Courses',
AVG (grades_grades) AS 'Grades Average'
FROM courses c
JOIN grades g
ON c.courses_id = g.grades_courses
GROUP BY courses_name
ORDER BY AVG (grades_grades) ASC;

-- //Finding which student and professor have the most courses in
common
SELECT professors_name AS 'Professors', COUNT(professors_name) AS

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'Common courses',  
grades_id AS 'Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'Mrs. R'  
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
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```
SELECT professors_name AS 'Professors', COUNT(professors_name) AS  
'Common courses',  
grades_id AS 'ID Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'Miss. D'  
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
```

```
SELECT professors_name AS 'Professors', COUNT(professors_name) AS  
'Common courses',  
grades_id AS 'ID Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'MR. A'  
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
```

```
SELECT professors_name AS 'Professors', COUNT(professors_name) AS  
'Common courses',  
grades_id AS 'ID Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'Mrs. M'  
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
```

```
SELECT professors_name AS 'Professors', COUNT(professors_name) AS  
'Common courses',  
grades_id AS 'ID Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'Miss. J'
```

```
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
```

```
SELECT professors_name AS 'Professors', COUNT(professors_name) AS  
    'Common courses',  
grades_id AS 'ID Students'  
FROM professors p  
JOIN grades g  
ON p.professors_class = g.grades_courses  
WHERE professors_name= 'MR. T'  
GROUP BY grades_id  
ORDER BY COUNT(professors_name) DESC;
```