

1. Help display school information for students interested in a specific program, such as a student interested
in the computer science program.

```
SELECT School_Name, Department_Name, Program_Name, School_State,
Number_of_seats
FROM Department D
JOIN Program P ON D.DepartmentID = P.DepartmentID
JOIN School S ON D.SchoolID = S.SchoolID
WHERE P.Program_Name LIKE '%computer science%';
```

	School_Name	Department_Na...	Program_Name	School_State	Number_of_sea...	
	Lasell College	Fine Arts	Computer Science	Michigan	43	
	Northeastern University	Biology	Computer Science	Nevada	38	
	Mount Senario College	Arts and Sciences	Computer Science	Arizona	29	
	University of the District of Columbia	Education	Computer Science	Texas	24	
	Fort Valley School_State College	Computer Science	Computer Science	Texas	16	
	University of Alaska - Anchorage	Nursing	Computer Science	Nevada	11	

2. Help students set clear preparation goals about SAT for applying to specific programs, 10 highest SAT scores.

```
SELECT DISTINCT P.Program_Name, R.SAT
FROM Requirement R
JOIN Program P ON R.ProgramID = P.ProgramID
WHERE R.SAT > 1400
ORDER BY R.SAT DESC
LIMIT 10;
```

	Program_Name	SAT	
	Dance	1586	
	Public Relations	1586	
	Women's Studies	1586	
	Religious Studies	1581	
	Film Studies	1581	
	Art History	1581	
	Psychology	1580	
	Actuarial Science	1580	
	Communications	1580	
	International Relations	1577	

3. For Schools retrieves a list of all students who have been accepted into their chosen school, useful for enrollment processing.

```
SELECT S.School_Name, ST.First_Name, ST.Last_Name, D.Student_Decision,
D.School_Decision
FROM Student ST
JOIN Decision D ON ST.StudentID = D.StudentID
JOIN Department DE ON D.DepartmentID = DE.DepartmentID
JOIN School S ON DE.SchoolID = S.SchoolID
WHERE D.Student_Decision = 'Enroll' AND D.School_Decision = 'Admit'
ORDER BY S.School_Name;
```

School_Name	First_Name	Last_Name	Student_Decisi...	School_Decisi...	
Alverno College	Ophelie	Feronet	Enroll	Admit	
Ambassador University	Denys	Shipperbottom	Enroll	Admit	
American InterContinental University - Ft. Laude...	Angelle	Paxforde	Enroll	Admit	
American InterContinental University - Ft. Laude...	Gage	Drance	Enroll	Admit	
Andrews University	Rubin	McClaren	Enroll	Admit	
Andrews University	Elora	Camilli	Enroll	Admit	
Andrews University	Pierce	Coultish	Enroll	Admit	
Arizona School_State University, West Campus	Genevieve	Goodey	Enroll	Admit	
Athens School_State College	Noak	Riglesford	Enroll	Admit	
Athens School_State College	La verne	Fudger	Enroll	Admit	
Ave Maria University	Briant	Pfaffel	Enroll	Admit	
Ave Maria University	Katleen	Brader	Enroll	Admit	
Berry College	Clarabelle	Houdhury	Enroll	Admit	
Result 66					

4. Rejection Rates by School for the international students using this database

```
SELECT School.School_Name,
Concat (
ROUND((CAST(COUNT(CASE WHEN Decision.School_Decision = 'Deny' THEN 1 END) AS
DECIMAL) / COUNT(Decision.School_Decision)) * 100, 2),
'%' ) AS Rejection_Percentage
From School
LEFT JOIN Department ON Department.SchoolID = School.SchoolID
LEFT JOIN Decision ON Decision.DepartmentID = Department.DepartmentID
GROUP BY School_Name;
```

School_Name	Rejection_Percenta...	
Shawnee Community College	0.00%	
Rasmussen College, Wisconsin Campuses	33.33%	
Berry College	25.00%	
Concord College	0.00%	
Western Baptist College	50.00%	
Pennsylvania College of Optometry	0.00%	
Grand Valley School_State University	37.50%	
Western New Mexico University	25.00%	
Mount Mary College	50.00%	
Indiana University - Southeast	75.00%	
Webber College	0.00%	
Berne University	50.00%	
Grace College	50.00%	
Result 67		

5. Acceptance Rates by school for the international students using this database

```

SELECT School.School_Name,
Concat (
ROUND((CAST(COUNT(CASE WHEN Decision.School_Decision = 'Deny' THEN 1 END) AS
DECIMAL) / COUNT(Decision.School_Decision)) * 100, 2),
'%' ) AS Rejection_Percentage
From School
LEFT JOIN Department ON Department.SchoolID = School.SchoolID
LEFT JOIN Decision ON Decision.DepartmentID = Department.DepartmentID
GROUP BY School_Name;
```

School_Name	Rejection_Percenta...	
Rasmussen College, Wisconsin Campuses	33.33%	
Berry College	25.00%	
Concord College	0.00%	
Western Baptist College	50.00%	
Pennsylvania College of Optometry	0.00%	
Grand Valley School_State University	37.50%	
Western New Mexico University	25.00%	
Mount Mary College	50.00%	
Indiana University - Southeast	75.00%	
Webber College	0.00%	
Berne University	50.00%	
Grace College	50.00%	
Chapman University	50.00%	
Southern New Hampshire University	66.67%	
Result 68		

6. For each department at Mount Mary College, this query provides a clear and well-structured list of courses, term offerings, and instructor names, making it simple for students to access academic data.

```

SELECT Department.Department_Name, Courses.Course_Name, Courses.Term_Offered,
Courses.Instructor_Name
```

```

FROM School
JOIN Department ON School.SchoolID = Department.SchoolID
JOIN Courses ON Department.DepartmentID = Courses.DepartmentID
WHERE School.School_Name = 'Mount Mary College'
ORDER BY Department.Department_Name, Courses.Course_Name;

```

	Department_Name	Course_Name	Term_Offered	Instructor_Name	
	Environmental Science	Introduction to Computer Science	FA18	Page Keson	
	Fine Arts	Calculus I	SP24	Gaile Britney	
	Sociology	Introduction to Computer Science	SP19	Gannie Hugonnet	

7. This query offers query is a thorough count of applications for each academic program. This makes application strategy planning easier.

```

SELECT Program.ProgramID, Program.Program_Name, COUNT(Application.StudentID) AS
Number_of_Applicants
FROM Program
LEFT JOIN Application_to_Program ON Program.ProgramID =
Application_to_Program.ProgramID
LEFT JOIN Application ON Application_to_Program.ApplicationID =
Application.ApplicationID
GROUP BY Program.ProgramID, Program.Program_Name
ORDER BY Number_of_Applicants DESC;

```

	ProgramID	Program_Name	Number_of_Applica...	
	17601244	Marine Biology	8	
	25819210	Civil Engineering	8	
	52554862	Political Science	8	
	52614946	Neuroscience	8	
	54671099	Sociology	8	
	64227631	Geology	8	
	71474687	Journalism	8	
	75261593	Environmental Science	8	
	82633166	Journalism	8	
	101378669	Computer Science	8	

8. This search provides information about the number of applications received by each university. This helps international students get an idea of what their chances are to get admitted

```

SELECT School.SchoolID, School.School_Name, COUNT(Application.ApplicationID) AS
Number_of_Applications
FROM School
LEFT JOIN Department ON School.SchoolID = Department.SchoolID

```

```

LEFT JOIN Program ON Department.DepartmentID = Program.DepartmentID
LEFT JOIN Application_to_Program ON Program.ProgramID =
Application_to_Program.ProgramID
LEFT JOIN Application ON Application_to_Program.ApplicationID =
Application.ApplicationID
GROUP BY School.SchoolID, School.School_Name
ORDER BY Number_of_Applications DESC;

```

SchoolID	School_Name	Number_of_Applicati...	
214310481	The Boston Conservatory	18	
307001836	Montana School_State University - Northern	18	
749624104	Polytechnic University, Westchester Graduate C...	18	
11926991	Berry College	17	
388983683	University of Oklahoma	17	
392968156	Edward Waters College	17	
430602441	Danville Area Community College	17	
638595649	Fort Valley School_State College	17	
842317002	Guilford College	17	
931809115	Franklin College	17	
7512212	Rasmussen College, Wisconsin Campuses	16	
84517351	School_State University of New York College at...	16	
141476239	Indiana University - East	16	

9. This query searches the courses listed taught by the Public Health department at University of Tennessee

```

SELECT Department.DepartmentID, Department.Department_Name, Courses.CourseID,
Courses.Course_Name, School.School_Name
From School
LEFT JOIN Department ON School.SchoolID = Department.SchoolID
LEFT JOIN Program ON Department.DepartmentID = Program.DepartmentID
LEFT JOIN Courses ON Program.ProgramID = Courses.ProgramID
WHERE School.School_Name = 'University of Tennessee - Knoxville' AND
Department.Department_Name = 'Public Health' ;

```

DepartmentID	Department_Na...	CourseID	Course_Name	School_Name	
174543619	Public Health	33965360	Introduction to Sociology	University of Tennessee - Knoxville	
174543619	Public Health	623148262	Art Appreciation	University of Tennessee - Knoxville	
174543619	Public Health	704380590	Introduction to Psychology	University of Tennessee - Knoxville	

10. Search of schools that has a health and a required IETLS score of 5 or less and contact information

```

SELECT School.School_Name, School.School_State, Program.Program_Name,
Department.Department_Email
From School

```

LEFT JOIN Department ON Department.SchoolID = School.SchoolID
LEFT JOIN Program ON Program.DepartmentID = Department.DepartmentID
LEFT JOIN Requirement ON Requirement.ProgramID = Program.ProgramID
WHERE Requirement.IETLS <=5 AND Program.Program_Name LIKE '%health%';

School_Name	School_State	Program_Name	Department_Email	
Excelsior College	Texas	Public Health	uscotchmoreoy@hhs.gov	
Duke University	Tennessee	Public Health	cbritzman2r@google.co.jp	
New Mexico School_State University	Washington	Healthcare Administration	pleleugp@noaa.gov	
Rensselaer Polytechnic Institute	California	Healthcare Administration	jgillisem3@t.co	

11. For Schools, identifies students whose scores in at least two tests (SAT, ACT, GRE, TOEFL, IETLS) exceed the average scores for their respective tests. This information can be valuable for pinpointing high-performing students in specific areas, aiding in targeted academic support or recognition programs

```
SELECT StudentID, First_Name, Last_Name, SAT, ACT, GRE, TOEFL, IETLS,
CASE WHEN SAT > IFNULL((SELECT AVG(SAT) FROM Student WHERE SAT IS NOT NULL), 0)
THEN 'Above Avg' ELSE 'Below Avg' END AS SAT_Avg_Status,
CASE WHEN ACT > IFNULL((SELECT AVG(ACT) FROM Student WHERE ACT IS NOT NULL), 0)
THEN 'Above Avg' ELSE 'Below Avg' END AS ACT_Avg_Status,
CASE WHEN GRE > IFNULL((SELECT AVG(GRE) FROM Student WHERE GRE IS NOT NULL),
0) THEN 'Above Avg' ELSE 'Below Avg' END AS GRE_Avg_Status,
CASE WHEN TOEFL > IFNULL((SELECT AVG(TOEFL) FROM Student WHERE TOEFL IS NOT
NULL), 0) THEN 'Above Avg' ELSE 'Below Avg' END AS TOEFL_Avg_Status,
CASE WHEN IETLS > IFNULL((SELECT AVG(IETLS) FROM Student WHERE IETLS IS NOT
NULL), 0) THEN 'Above Avg' ELSE 'Below Avg' END AS IETLS_Avg_Status
FROM Student
WHERE
(SAT > IFNULL((SELECT AVG(SAT) FROM Student WHERE SAT IS NOT NULL), 0) AND
ACT > IFNULL((SELECT AVG(ACT) FROM Student WHERE ACT IS NOT NULL), 0)) OR

(SAT > IFNULL((SELECT AVG(SAT) FROM Student WHERE SAT IS NOT NULL), 0) AND
GRE > IFNULL((SELECT AVG(GRE) FROM Student WHERE GRE IS NOT NULL), 0)) OR

(SAT > IFNULL((SELECT AVG(SAT) FROM Student WHERE SAT IS NOT NULL), 0) AND
TOEFL > IFNULL((SELECT AVG(TOEFL) FROM Student WHERE TOEFL IS NOT NULL), 0))
OR

(SAT > IFNULL((SELECT AVG(SAT) FROM Student WHERE SAT IS NOT NULL), 0) AND
IETLS > IFNULL((SELECT AVG(IETLS) FROM Student WHERE IETLS IS NOT NULL), 0)) OR

(ACT > IFNULL((SELECT AVG(ACT) FROM Student WHERE ACT IS NOT NULL), 0) AND
GRE > IFNULL((SELECT AVG(GRE) FROM Student WHERE GRE IS NOT NULL), 0)) OR
```


(ACT > IFNULL((SELECT AVG(ACT) FROM Student WHERE ACT IS NOT NULL), 0) AND
TOEFL > IFNULL((SELECT AVG(TOEFL) FROM Student WHERE TOEFL IS NOT NULL), 0))
OR

(ACT > IFNULL((SELECT AVG(ACT) FROM Student WHERE ACT IS NOT NULL), 0) AND
IETLS > IFNULL((SELECT AVG(IETLS) FROM Student WHERE IETLS IS NOT NULL), 0)) OR

(GRE > IFNULL((SELECT AVG(GRE) FROM Student WHERE GRE IS NOT NULL), 0) AND
TOEFL > IFNULL((SELECT AVG(TOEFL) FROM Student WHERE TOEFL IS NOT NULL), 0))
OR

(GRE > IFNULL((SELECT AVG(GRE) FROM Student WHERE GRE IS NOT NULL), 0) AND
IETLS > IFNULL((SELECT AVG(IETLS) FROM Student WHERE IETLS IS NOT NULL), 0)) OR

(TOEFL > IFNULL((SELECT AVG(TOEFL) FROM Student WHERE TOEFL IS NOT NULL), 0)
AND
IETLS > IFNULL((SELECT AVG(IETLS) FROM Student WHERE IETLS IS NOT NULL), 0));

StudentID	First_Name	Last_Name	SAT	ACT	GRE	TOEFL	IETLS	SAT_Avg_Status	ACT_Avg_Status	GRE_Avg_Status	TOEFL_Avg_Status	IETLS_Avg_Status
5284958	Sallie	McLukie	NULL	25	326	82	8	Below Avg	Above Avg	Above Avg	Above Avg	Above Avg
9727920	Dael	Baker	1010	19	265	56	9	Below Avg	Above Avg	Below Avg	Below Avg	Above Avg
10836593	Florri	MacAlpin	NULL	11	331	97	NULL	Below Avg	Below Avg	Above Avg	Above Avg	Below Avg
16358770	Garald	Edgson	573	NULL	309	26	7	Below Avg	Below Avg	Above Avg	Below Avg	Above Avg
19594961	Sandi	Marquis	NULL	18	267	73	2	Below Avg	Above Avg	Below Avg	Above Avg	Below Avg
36571338	Alicia	Kroll	538	23	285	27	7	Below Avg	Above Avg	Below Avg	Below Avg	Above Avg
36680836	Elien	Crichley	558	24	292	37	6	Below Avg	Above Avg	Below Avg	Below Avg	Above Avg
45995581	Ranee	Thackwray	1389	7	276	77	9	Above Avg	Below Avg	Below Avg	Above Avg	Above Avg
60556951	Augustina	Abramzon	675	19	314	10	2	Below Avg	Above Avg	Above Avg	Below Avg	Below Avg
74852922	Barbie	Romeril	31	333	82	7	Below Avg	Above Avg	Above Avg	Above Avg	Above Avg	Above Avg
77372761	Ynez	Eaglestone	NULL	5	309	111	5	Below Avg	Below Avg	Above Avg	Above Avg	Above Avg
1011327...	Harmonie	Leadston	732	31	281	86	7	Below Avg	Above Avg	Below Avg	Above Avg	Above Avg
1147139	Noak	Biglesford	NULL	15	307	83	16	Below Avg	Below Avg	Above Avg	Above Avg	Above Avg

12. Acceptance Rates by School in the Law Department

```

SELECT School.School_Name,
Concat (
ROUND((CAST(COUNT(CASE WHEN Decision.School_Decision = 'Deny' THEN 1 END) AS
DECIMAL) / COUNT(Decision.School_Decision)) * 100, 2),
'%' ) AS Rejection_Percentage
From School
LEFT JOIN Department ON Department.SchoolID = School.SchoolID
LEFT JOIN Decision ON Decision.DepartmentID = Department.DepartmentID
WHERE Department.Department_Name = 'Law'
GROUP BY School_Name
Having Rejection_Percentage IS NOT NULL
;

```

School_Name	Rejection_Percenta...	
Pennsylvania College of Optometry	0.00%	
St. Norbert College	0.00%	
University of Texas Health Center at Houston	100.00%	
Carleton College	0.00%	
Indiana University - East	0.00%	
Indiana University-Purdue University at Columbus	0.00%	
Meredith College	0.00%	
Marian College	0.00%	
EarthNet Institute	50.00%	
Peace College	50.00%	
University of Tennessee Space Institute	50.00%	
Evangel University	50.00%	
Ohio School State University - Lima	0.00%	

This Procedure allow students to put in their StudentID and it will populate all the applications that they have submitted and return the school information.

```
CREATE DEFINER=`mm_team01_02`@`%` PROCEDURE
`GetStudentDetailsAndDecision`(IN S_StudentID INT)
BEGIN
    -- Retrieve student details and decision for the given application ID
    SELECT
        SC.*,
        D.School_Decision,
        D.Student_Decision
    FROM
        mm_team01_02.Student AS S
    JOIN
        mm_team01_02.Application AS A ON S.StudentID = A.StudentID
    LEFT JOIN
        mm_team01_02.Decision AS D ON S.StudentID = D.StudentID AND A.ApplicationID =
        D.ApplicationID
    JOIN
        mm_team01_02.Application_to_Program AS AP ON AP.ApplicationID =
        A.ApplicationID
    JOIN
        mm_team01_02.Program AS P ON P.ProgramID = AP.ProgramID
    JOIN
        mm_team01_02.Department AS DP ON DP.DepartmentID = P.DepartmentID
    JOIN
        mm_team01_02.School AS SC ON SC.SchoolID = DP.SchoolID
    WHERE
        S.StudentID = S_StudentID;
END
```

Example:

CALL GetStudentDetailsAndDecision(779950775);

SchoolID	School_Name	School_State	School_Decisi...	Student_Decisi...	
356421927	Excelsior College	Tennessee	Admit	Reject	
137266059	Carleton College	Connecticut	Admit	Reject	
912503064	Northwest College of Art	Virginia	Waitlist	Enroll	
213529497	EarthNet Institute	Tennessee	Waitlist	Enroll	
842317002	Gulford College	Florida	Deny	NULL	
282968888	Ohio School_State University - Lima	Florida	Deny	NULL	
214310481	The Boston Conservatory	Maryland	Waitlist	NULL	
516240623	DePauw University	Florida	Waitlist	NULL	
750757638	University of Rochester	Pennsylvania	Waitlist	NULL	
545332648	University of New Haven	Virginia	Waitlist	NULL	
101799270	College of the Atlantic	Oregon	Admit	Reject	
182815680	Meredith College	Louisiana	Admit	Reject	
497491588	Wayland Baptist University	Tennessee	NULL	NULL	
518465408	United School_States Military Aca...	West Virginia	NULL	NULL	

