Make sure your tables are as shown below.

Apply

sID	cName	major	decision
123	Cornell	EE	Y
123	OSU	CS	Y
123	OSU	EE	N
123	U of O	CS	Y
123	MIT	CS	N
234	U of O	biology	N
345	Cornell	bioengineering	N
345	Cornell	CS	Y
345	Cornell	EE	N
345	MIT	bioengineering	Y
543	MIT	CS	N
678	Cornell	history	N
678	Cornell	psychology	Y
678	OSU	history	Y
765	OSU	history	Y
876	MIT	biology	Y
876	MIT	marine biology	N
876	OSU	CS	N
987	OSU	CS	Y
987	U of O	CS	Y

Student

sID	sName	GPA	sizeHS
123	Amy	3.90	1000
234	Bob	3.60	1500
345	Craig	3.50	500
456	Doris	3.90	1000
543	Craig	3.40	2000
567	Edward	2.90	2000
654	Amy	3.90	1000
678	Fay	3.80	200
765	Jay	2.90	1500
789	Gary	3.40	800
876	Irene	3.90	400
987	Helen	4.00	800

MinimumGPA

cName	major	minGPA
OSU	CS	3.75
OSU	EE	3.5
OSU	history	2.8
U of O	CS	3.6
U of O	biology	3.75
Cornell	bioengineering	3.8
Cornell	CS	3.4
Cornell	EE	3.6
Cornell	history	3.6
Cornell	psychology	2.8
MIT	biology	3.5
MIT	bioengineering	3.5
MIT	CS	3.9
MIT	marine biology	3.5

College

cNmae	State	enrollment
Cornell	NY	21000
MIT	MA	10000
OSU	OR	28000
U of O	OR	25000

Answer the following questions about the College Application Database that you imported into PHPMyAdmin. Note: you will need to add the minimum GPA table.   Give the SQL query statement to answer the following questions along with the resulting table. Remove meaningless duplicates from your results.

(5 pts each)

1) (a) List the sID, name and number of applications (as Number of Apps) that each student submitted. If the students did not make any applications the Number of Apps is 0.

   Query: SELECT Student.sID, count(cName) AS NumberofApps from Student, Apply WHERE Student.sID = Apply.sID GROUP BY Student.sID UNION SELECT sID, 0 FROM Student WHERE sID NOT IN (SELECT sID FROM Apply)

   Table Result:

   + Options

sID	NumberofApps
123	5
234	1
345	4
543	1
678	3
765	1
876	3
987	2
456	0
567	0
654	0
789	0

   (b) List the sID, name and number of applications (as Number of Apps) for each student that submitted three or more applications.

   Query: SELECT Student.sID, count(cName) AS NumberofApps from Student, Apply WHERE Student.sID = Apply.sID GROUP BY Student.sID HAVING COUNT(cName)>2

   Table Result:

+ Options

		sID	NumberofApps
☐ 🖊 Edit ➕ Copy ⊖ Delete		123	5
☐ 🖊 Edit ➕ Copy ⊖ Delete		345	4
☐ 🖊 Edit ➕ Copy ⊖ Delete		678	3
☐ 🖊 Edit ➕ Copy ⊖ Delete		876	3

2) List the sID and name of each student from a small HS (less than 600 students) who is applying to a CS major.

Query: SELECT Student.sID, Student.sName FROM Student, Apply WHERE (sizeHS < 600 AND Student.sID = Apply.sID AND major = 'CS')

Table Result:

+ Options

		sID	sName
☐ 🖊 Edit ➕ Copy ⊖ Delete		345	Craig
☐ 🖊 Edit ➕ Copy ⊖ Delete		876	Irene

3) (a) Determine the average minimum GPA requirement for each college.

Query: SELECT cName, AVG(minGPA) FROM MinimumGPA GROUP BY cName

Table Result:
+ Options

cName	AVG(minGPA)
Cornell	3.4399999618530273
MIT	3.600000023841858
OSU	3.349999984105428
U of O	3.674999952316284

(b) Determine the name of the college with the greatest average minimum GPA requirement.
Query: select cName, avgmin from (select cName, avg(minGPA) as avgmin from MinimumGPA group by cName) AS Max_cname where avgmin=(select max(avgmin) from (select cName, avg(minGPA) as avgmin from MinimumGPA group by cName) AS Maximum_Min)

Table Result:

+ Options

cName	avgmin
U of O	3.674999952316284

4) List the name and id of the students that applied to OSU but did not apply to U of O.

Query: SELECT Student.sID, Student.sName FROM Student, Apply WHERE Student.sID = Apply.sID AND Apply.cName = 'OSU' AND Student.sID NOT IN (SELECT Student.sID FROM Student, Apply WHERE Student.sID = Apply.sID AND Apply.cName = 'U of O')

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				sID	sName
☐	🖊 Edit	⊒ Copy	⊖ Delete	678	Fay
☐	🖊 Edit	⊒ Copy	⊖ Delete	765	Jay
☐	🖊 Edit	⊒ Copy	⊖ Delete	876	Irene

5) For students with GPA's higher than the minimum requirements for the major they applied for, give the student's name, GPA, college name and major.

Query: SELECT Student.sName, Student.GPA, Apply.major, MinimumGPA.cName FROM Student, Apply, MinimumGPA WHERE Student.sID = Apply.sID AND Student.GPA > MinimumGPA.minGPA AND Apply.major = MinimumGPA.major AND MinimumGPA.cName = Apply.cName

Table Result:

+ Options

sName	GPA	major	cName
Amy	3.90	EE	Cornell
Amy	3.90	CS	OSU
Amy	3.90	EE	OSU
Amy	3.90	CS	U of O
Craig	3.50	CS	Cornell
Fay	3.80	history	Cornell
Fay	3.80	psychology	Cornell
Fay	3.80	history	OSU
Jay	2.90	history	OSU
Irene	3.90	biology	MIT
Irene	3.90	marine biology	MIT
Irene	3.90	CS	OSU
Helen	4.00	CS	OSU
Helen	4.00	CS	U of O

6) List the name and id of the students that applied to all schools. Do not use the names of the schools in your query.

Query: SELECT Student.sName, Student.sID FROM Student, Apply WHERE Student.sID = Apply.sID GROUP BY Student.sName HAVING COUNT(DISTINCT cName) >= 4

+ Options

←T→		sName	sID
☐ 🖉 Edit 📋 Copy ⊖ Delete	Amy		123