Project Title: Academic Management System (using SQL)

1. Database Creation

```
CREATE DATABASE student_database;
USE student database;
                                             b)
CREATE TABLE StudentInfo (
                                             CREATE TABLE CourseInfo (
STU ID int PRIMARY KEY,
                                             COURSE ID INT,
                                             COURSE NAME VARCHAR(100),
STU NAME varchar(100),
                                             COURSE INSTRUCTOR NAME VARCHAR(100),
DOB DATE,
PHONE_NO varchar(15),
                                             PRIMARY KEY (COURSE_ID)
EMAIL ID varchar(50),
                                             );
ADDRESS varchar(250)
);
c)
CREATE TABLE EnrollmentInfo (
ENROLLMENT_ID INT,
STU ID INT,
COURSE ID INT,
ENROLL STATUS VARCHAR(20),
PRIMARY KEY (ENROLLMENT_ID),
FOREIGN KEY (STU_ID) REFERENCES StudentInfo(STU_ID),
FOREIGN KEY (COURSE_ID) REFERENCES CourseInfo(COURSE_ID)
);
```

2. Data Creation:

```
INSERT INTO Studentinfo (STU_ID, STU_NAME, DOB, PHONE_NO, EMAIL_ID, ADDRESS) VALUES
(101, 'Amal Crampire', '1994-11-25', '9999999991', 'amal01@gmail.com', 'Chennai'),
(102, 'Philip Ron', '1994-06-23', '9999999992', 'phil02@gmail.com', 'Bangalore'),
(103, 'Sam Issac', '1993-08-25', '9999999993', 'sam03@gmail.com', 'Hyderabad'),
(104, 'Tony Stark', '1993-10-23', '9999999994', 'tony04@gmail.com', 'Pune'),
(105, 'Anees Shaik', '1997-10-10', '9999999995', 'anee05@gmail.com', 'Delhi'),
(106, 'Jason Santhom', '1991-04-21', '9999999996', 'jason06@gmail.com', 'Indore');
INSERT INTO CourseInfo (COURSE ID, COURSE NAME, COURSE INSTRUCTOR NAME) VALUES
(1, 'SQL', 'Sheeba'),
(2, 'Python', 'Arun'),
(3, 'AWS', 'Merry'),
(4, 'JAVA', 'Henry'),
(5, 'CSS', 'Hong');
INSERT INTO EnrollmentInfo (ENROLLMENT_ID, STU_ID, COURSE_ID, ENROLL_STATUS) VALUES
(10001, 101, 1, 'ENROLLED'),
(10002, 103, 2, 'ENROLLED'),
(10003, 104, 4, 'ENROLLED'),
```

(10004, 102, 3, 'ENROLLED'), (10005, 105, 3, 'NOT ENROLLED'), (10006, 106, 5, 'ENROLLED') (10007, 101, 5, 'NOT ENROLLED');

SELECT		STU_NAME	PHONE_NO	ADDRESS	ENROLL_STATUS
s.STU_NAME,	-	-			
s.PHONE_NO,	•	Amal Crampire	9999999991	Chennai	ENROLLED
s.ADDRESS, e.ENROLL_STA	-	Philip Ron	9999999992	Bangalore	ENROLLED
TUS	-	Sam Issac	9999999993	Hyderabad	ENROLLED
	-	Tony Stark	9999999994	Pune	ENROLLED
FROM	-	Jason Santhom	9999999996	Indore	ENROLLED
StudentInfo s	-	Amal Crampire	9999999991	Chennai	NOT ENROLLED
JOIN	_	Anees Shaik	999999995	Delhi	NOT ENROLLED
EnrollmentInfo					
e ON s.STU ID =					
e.STU_ID					
_					
ORDER BY					
e.ENROLL_STA TUS ASC;					
1037130,					
b) Write a query	to retr	ieve a list of course	es in which a spec	ific student is e	nrolled.
SELECT		COLIDCE NAM	ME CTIL NA	ME	
c.COURSE_NA	_	COURSE_NAME STU_NAME			
ME,	•	SQL	Amal Cra	mpire	
s.STU_NAME FROM					
EnrollmentInfo					
EnrollmentInfo e					
e JOIN					
e JOIN CourseInfo c					
e JOIN CourseInfo c ON					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN StudentInfo s					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN StudentInfo s ON s.STU_ID =					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN StudentInfo s ON s.STU_ID = e.STU_ID WHERE e.STU_ID = 101					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN StudentInfo s ON s.STU_ID = e.STU_ID WHERE e.STU_ID = 101 AND					
e JOIN CourseInfo c ON e.COURSE_ID = c.COURSE_ID JOIN StudentInfo s ON s.STU_ID = e.STU_ID WHERE e.STU_ID = 101					

		COURSE_I	D COURSE_N	AME COL	RSE_INSTRUCT	OR_NAME
SELECT * FROM CourseInfo;	>	1	SQL	Shee	ba	
		2	Python	Arun		
		3	AWS	Merr	у	
		4	JAVA	Henr	у	
		5	CSS	Hong	l	
		NULL	NULL	NULL		
l) Write a query	to retri	eve course info	rmation for a specif	ic course.		
ELECT * ROM		COURSE_II	COURSE_N	AME COU	RSE_INSTRUCT	OR_NAME
CourseInfo	•	1	SQL	Shee	ba	
VHERE COURSE NAM		NULL	NULL	NULL		
= 'SQL';						
<u> </u>	to retri	eve course info	rmation for multiple	e courses.		
SELECT *	to retri	eve course info	<u> </u>	IAME COL	JRSE_INSTRUCT	TOR_NAME
SELECT * FROM CourseInfo	to retri	1				TOR_NAME
SELECT * FROM CourseInfo WHERE		COURSE_I	D COURSE_N SQL Python	Shee	ba	TOR_NAME
SELECT * FROM CourseInfo WHERE COURSE_NAM E IN ('SQL',		COURSE_I	D COURSE_N	IAME COU	ba	TOR_NAME
ELECT * ROM CourseInfo VHERE COURSE_NAM IN ('SQL', Python'); Test the querie	es to en	COURSE_I 1 2 NULL sure accurate re	SQL Python	Shee	ba	and verify the results
ELECT * FROM CourseInfo WHERE COURSE_NAM EIN ('SQL', Python'); Test the querie	es to en	COURSE_I 1 2 sure accurate retput.)	SQL Python	Shee	ba	
ELECT * ROM CourseInfo VHERE COURSE_NAM IN ('SQL', Python'); Test the querie gainst the expe	es to en	COURSE_I 1 2 sure accurate retput.)	SQL Python Extrieval of student i	Shee Arun	kecute the queries a	and verify the results EMAIL_ID
ELECT * ROM CourseInfo VHERE COURSE_NAM IN ('SQL', Python'); Test the querie gainst the expe	es to en	COURSE_I 1 2 sure accurate retput.) STU_ID 101 A	SQL Python Extrieval of student i	Shee Arun	ecute the queries a	and verify the results EMAIL_ID
ELECT * ROM CourseInfo VHERE COURSE_NAM IN ('SQL', Python'); Test the querie gainst the expe	es to en	COURSE_I 1 2 sure accurate retput.) STU_ID 101 A 102 P	SQL Python Extrieval of student i	Shee Arun MULU Information. (Ex	PHONE_NO	EMAIL_ID amal01@gmail.com phil02@gmail.com
ELECT * ROM CourseInfo VHERE COURSE_NAM IN ('SQL', Python'); Test the querie gainst the expe	es to en	COURSE_I 1 2 sure accurate retput.) STU_ID 101 A 102 P 103 S	SQL Python NULL etrieval of student in STU_NAME mal Crampire hilip Ron	Shee Arun NULL nformation. (Example 1994-11-25) 1994-06-23	PHONE_NO 999999999999999999999999999999999999	end verify the results EMAIL_ID amalo 1@gmail.com philo2@gmail.com sam03@gmail.com
SELECT * SEROM CourseInfo WHERE COURSE_NAM EIN ('SQL', Python');) Test the querie gainst the expe	es to en	COURSE_I 1 2 sure accurate retput.) STU_ID S 101 A 102 P 103 S 104 T	SQL Python Extrieval of student in STU_NAME mal Crampire hilip Ron am Issac	Shee Arun NULL ODB 1994-11-25 1994-06-23 1993-08-25	PHONE_NO 999999999999999999999999999999999999	EMAIL_ID amal01@gmail.com phil02@gmail.com sam03@gmail.com tony04@gmail.com
SELECT * FROM CourseInfo WHERE COURSE_NAM E IN ('SQL', Python');	es to en	COURSE_I 1 2 sure accurate retput.) STU_ID 101 A 102 P 103 S 104 T 105 A	SQL Python Extrieval of student in STU_NAME mal Crampire hilip Ron am Issac ony Stark	NAME COL Shee Arun Information. (E: DOB 1994-11-25 1994-06-23 1993-08-25 1993-10-23	PHONE_NO 999999999999999999999999999999999999	EMAIL_ID amal01@gmail.com phil02@gmail.com

4. Reporting and Analytics (Using joining queries):

SELECT c.Course_Name, COUNT(e.course_id) AS		Course_Nam	e numberofStu	ıd
numberofStud	•	SQL	1	
FROM CourseInfo c		Python	1	
OIN EnrollmentInfo e ON .course_id = e.course_ID		JAVA	1	
WHERE e.enroll status =				
'ENROLLED'	_	AWS	1	
GROUP BY c.Course_Name;		CSS	1	
o) Write a query to retrieve the lis	t of stu	dents enrolled in a s	specific course	
SELECT e.COURSE_ID,	Ė	COURSE_ID	COURSE_NAME	STU_NAME
c.COURSE_NAME, s.STU_NAME	•	1	SQL	Amal Crampire
FROM CourseInfo c JOIN EnrollmentInfo e ON	ľ	2	Python	Sam Issac
c.course_id = e.course_ID		4	JAVA	Tony Stark
JOIN StudentInfo s ON s.STU_ID				
= e.STU_ID		3	AWS	Philip Ron
WHERE e.enroll_status = ENROLLED';		5	CSS	Jason Santhom
c) Write a query to retrieve the co SELECT c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS	unt of e	enrolled students fo	r each instructor.	
		COURSE_INS	TRUCTOR_NAME	numberofStud
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud	>	COURSE_INST		numberofStud 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c	•	COURSE_INST Sheeba Arun		numberofStud 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud	>	COURSE_INST Sheeba Arun Henry		numberofStud 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c JOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status =	•	COURSE_INST Sheeba Arun Henry Merry		numberofStud 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c IOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = ENROLLED'	>	COURSE_INST Sheeba Arun Henry		numberofStud 1 1 1 1
COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud ROM CourseInfo c OIN EnrollmentInfo e ON course_id = e.course_ID WHERE e.enroll_status = ENROLLED' GROUP BY	>	COURSE_INST Sheeba Arun Henry Merry		numberofStud 1 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c JOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = 'ENROLLED' GROUP BY c.COURSE_INSTRUCTOR_NAME; d) Write a query to retrieve the lis		COURSE_INST Sheeba Arun Henry Merry Hong	TRUCTOR_NAME	1 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c JOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = 'ENROLLED' GROUP BY c.COURSE_INSTRUCTOR_NAME; d) Write a query to retrieve the lis		COURSE_INST Sheeba Arun Henry Merry Hong dents who are enro	TRUCTOR_NAME	1 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c IOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = ENROLLED' GROUP BY c.COURSE_INSTRUCTOR_NAME; d) Write a query to retrieve the lis SELECT e.stu_id, COUNT(c.course_id) AS		COURSE_INST Sheeba Arun Henry Merry Hong dents who are enro	Iled in multiple courses	1 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c IOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = ENROLLED' GROUP BY c.COURSE_INSTRUCTOR_NAME; d) Write a query to retrieve the lise EELECT e.stu_id, COUNT(c.course_id) AS numberofStud FROM CourseInfo c		COURSE_INST Sheeba Arun Henry Merry Hong dents who are enro	Iled in multiple courses	1 1 1 1
c.COURSE_INSTRUCTOR_NAME, COUNT(e.STU_ID) AS numberofStud FROM CourseInfo c JOIN EnrollmentInfo e ON c.course_id = e.course_ID WHERE e.enroll_status = 'ENROLLED' GROUP BY c.COURSE_INSTRUCTOR_NAME; d) Write a query to retrieve the lis		COURSE_INST Sheeba Arun Henry Merry Hong dents who are enro	Iled in multiple courses	1 1 1 1

WHERE e.enroll_status =					
'ENROLLED'					
GROUP BY e.stu_id					
HAVING COUNT(c.course_id) >					
1;					
e) Write a query to retrieve the cou	ırses th	at have the highes	t number of enrolled st	udents (arranging fron	n highest to
lowest)					
					_
SELECT c.COURSE_ID,		COURSE_ID	COURSE_NAME	numberofStud	
c.COURSE_NAME,	_	COOKSE_ID	COURSE_INAME	numberoistuu	
COUNT(e.STU_ID) AS numberofStud	•	1	SQL	1	
FROM CourseInfo c		2	Python	1	
JOIN EnrollmentInfo e ON		4	JAVA	1	
c.course_id = e.course_ID WHERE e.enroll_status =		3	AWS	1	
'ENROLLED'		5	CSS	1	
GROUP BY c.COURSE_ID,					
c.COURSE_NAME					
ORDER BY COUNT(e.STU_ID)					

DESC;