

CREATE DATABASE student_management; create database

Table create

CREATE TABLE student (SID varchar(12), name varchar(30), email varchar(30), cgpa int(3), major varchar(10));

CREATE TABLE course (C_code varchar(10), title varchar(20), credit int(2));

CREATE TABLE faculty (ID int(10), name varchar(30), designation varchar(10), salary int(6));

CREATE TABLE enrollment (SID varchar(12), FID int(10), C_code varchar(10));

Insert value

INSERT INTO student VALUES ('230-15-3871','Shanto', 'a@gmail.com', 3, 'software');

INSERT INTO student VALUES ('230-15-3820','Rakib', 'b@gmail.com', 3, 'software');

INSERT INTO student VALUES ('230-15-3810','Samsun', 'c@gmail.com', 3, 'software');

INSERT INTO student VALUES ('230-15-3882','Asme', 'd@gmail.com', 3, 'software');

Insert value

INSERT INTO faculty VALUES (12345, 'Samsun naher', 'Professor', 100000);

INSERT INTO faculty VALUES (12346, 'Asme', 'Lecturer', 100000);

INSERT INTO faculty VALUES (12347, 'Rakibul Islam', 'Professor', 100000);

INSERT INTO faculty VALUES (12348, 'Shanto', 'Lecturer', 100000);

Insert value

INSERT INTO course VALUES ('cse311', 'dbms', 3);

INSERT INTO course VALUES ('cse312', 'dbms lab', 2);

INSERT INTO course VALUES ('cse313', 'oop2', 3);

INSERT INTO course VALUES ('cse314', 'oop2 lab', 2);

Insert value

INSERT INTO enrollment VALUES ('230-15-3871', 12345, 'cse311');

INSERT INTO enrollment VALUES ('230-15-3820', 12346, 'cse312');

INSERT INTO enrollment VALUES ('230-15-3810', 12347, 'cse313');

INSERT INTO enrollment VALUES ('230-15-3882', 12348, 'cse314');

ALTER TABLE course ADD COLUMN money int(5); add column

ALTER TABLE course MODIFY money varchar(5); change column type

ALTER TABLE course CHANGE money taka varchar(5);

change column name

ALTER TABLE course drop taka;

drop column

ALTER TABLE faculty RENAME TO teacher;

change table name

DROP TABLE faculty;

drop table

DROP DATABASE student_management;

drop database

ALTER TABLE student ADD PRIMARY KEY (SID);

ALTER TABLE faculty ADD PRIMARY KEY (ID);

add primary key

ALTER TABLE course ADD PRIMARY KEY (C_code);

ALTER TABLE course DROP PRIMARY KEY ;

drop primary key

ALTER TABLE enrollment

ADD CONSTRAINT FK_sid

add foreign key

FOREIGN KEY (SID) REFERENCES student(SID);

ALTER TABLE enrollment

ADD CONSTRAINT FK_fid

add foreign key

FOREIGN KEY (FID) REFERENCES faculty(ID);

ALTER TABLE enrollment

ADD CONSTRAINT FK_code

add foreign key

FOREIGN KEY (C_code) REFERENCES course(C_code);

ALTER TABLE enrollment DROP FOREIGN KEY FK_sid;

drop foreign key

SELECT SID FROM student WHERE name = 'Asme'	where
SELECT * FROM student WHERE major = 'CSE'	ALL
SELECT * FROM student WHERE major = 'CSE' AND name = 'Asme'	AND
SELECT * FROM student WHERE major = 'CSE' OR name = 'Asme'	OR
SELECT name FROM student where cgpa > 3 ;	> <
SELECT name FROM student WHERE SID like '230%'	like
SELECT * FROM student WHERE SID like '%15%'	like
SELECT name FROM faculty WHERE ID BETWEEN 12345 AND 12347 ;	between
SELECT DISTINCT salary , designation FROM faculty	distinct
SELECT DISTINCT major FROM student ;	distinct
SELECT * FROM student ORDER BY cgpa ;	order by
SELECT * FROM student ORDER BY cgpa DESC ;	order by descending
SELECT * FROM student ORDER BY name ;	order by alpabetic
SELECT * FROM passenger ORDER BY p_id LIMIT 3 ;	order by limit
SELECT * FROM passenger ORDER BY p_id LIMIT 1, 2 ;	order by limit range

JOIN

SELECT name FROM student JOIN enrollment ON enrollment.SID = student.SID WHERE C_code = 'CSE311' ;

SELECT name FROM faculty JOIN enrollment JOIN course ON enrollment.FID = faculty.ID AND enrollment.C_code = course.C_code WHERE credit > 2 ;

SELECT student.name from student JOIN faculty JOIN course JOIN enrollment ON student.SID = enrollment.SID AND enrollment.FID = faculty.ID AND enrollment.C_code = course.C_code WHERE faculty.name = 'Samsun Naher' AND course.title = 'DBMS' ;

Aggregate

SELECT AVG(cgpa) FROM student ;

SELECT MAX(cgpa) FROM student ;

SELECT MIN(cgpa) FROM student ;

SELECT COUNT(studentID) FROM student ;

SELECT SUM(cgpa) FROM student ;

Aggregate (condition)

SELECT SUM(cgpa) FROM student WHERE department = "cse";

SELECT AVG(cgpa) FROM student GROUP BY department HAVING department = "cse";

View create

```
CREATE VIEW studentt_view AS  
SELECT * FROM student JOIN faculty JOIN enrollment JOIN course ON  
student.studentID = enrollment.SID AND  
faculty.facultyID = enrollment.FID AND  
course.Course_code = enrollment.C_code ;
```

search from view

```
SELECT studentID FROM studentt_view WHERE Course_code = "cse314" ;  
SELECT studentName, facultyName FROM studentt_view WHERE Course_code = "cse314" AND title = "oop2 lab" ;
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