PROJECT

Student Database Management

BY

Sadeem Abdulkareem

About The System:

A student management system (SMS), also known as a student information system (SIS), is a database system in SQL used by educational institutions to manage student-related information and administrative tasks. It serves as a centralized platform to store, organize, and process student data, facilitating efficient management of student records, enrollment, grades, attendance, In this project, we used SQL to write tables and some queries. There are four tables (students, courses, College, Registration, Grade)
Each table contains a set of columns and have values

Student Management System Implementation :

We create a student management system in SQL, First-able design and create database tables to store information related to students, courses, college, registration and grade. Here's Implementation for a student management system:

1) Table name: Student

1. Create the "Student" table to store student information:

2) Table name: Courses

2. Create the "Courses" table to store course information:


```
CREATE TABLE Courses (
  courses_id int (9),
  Course_name varchar (10),
  Course_type varchar (20));
  INSERT INTO  Courses (courses_id ,  Course_name , Course_type)
   VALUES (1, 'English', 'onlline');
  INSERT INTO  Courses VALUES (2, 'Math', 'Attendance_study');
  INSERT INTO Courses VALUES (3, 'Chemistry', 'Attendance_study');
  INSERT INTO Courses VALUES (4, 'Data_Science', 'Attendance_study');
  INSERT INTO Courses VALUES (5, 'Programming', 'Attendance_study');

  SELECT * FROM  Courses;
```

Output

courses_id	Course_name	Course_type
1	English	onlline
2	Math	Attendance_study
3	Chemistry	Attendance_study
4	Data_Science	Attendance_study
5	Programming	Attendance_study


```
CREATE TABLE Courses (
  courses_id int (9),
  Course_name varchar (10),
  Course_type varchar (20));
  INSERT INTO  Courses (courses_id ,  Course_name , Course_type)
   VALUES (1, 'English', 'onlline');
  INSERT INTO  Courses VALUES (2, 'Math', 'Attendance_study');
  INSERT INTO Courses VALUES (3, 'Chemistry', 'Attendance_study');
  INSERT INTO Courses VALUES (4, 'Data_Science', 'Attendance_study');
  INSERT INTO Courses VALUES (5, 'Programming', 'Attendance_study');

  SELECT * FROM  Courses Where courses_id = 4;
```

Output

courses_id	Course_name	Course_type
4	Data_Science	Attendance_study

3) Table name: College

3. Create the "Collge" table to store college information:

4) Table name: Registration

4. Create the "registration" table to store registration information:

5) Table name: Grade

5. Create the "grade" table to store relationships between student and grade information:

```
Input                                                    [ ]  ☾  ⋮  Run SQL

CREATE TABLE Grade (
 Student_id int (9),
  Student_serial_number int (9),
 Student_name varchar (10),
  Student_course varchar (20),
 Student_grade varchar (20));
  INSERT INTO Grade (Student_id, Student_serial_number , Student_name , Student_course , Student_grade)
   VALUES (443806209, 5 , 'Amal', 'English', 'A+');
  INSERT INTO Grade VALUES (443900909, 10 , 'Basma', 'Math', 'A+');
  INSERT INTO Grade VALUES (443508908, 13 , 'Hour', 'Chemistry', 'A');
  INSERT INTO Grade VALUES (443778900, 22 , 'Joud', 'Dtat Science', 'A');
  INSERT INTO Grade VALUES (443368910, 31,  'Rawan', 'Programming', 'B+');

  SELECT * FROM Grade;


Output
```

Student_id	Student_serial_number	Student_name	Student_course	Student_grade
443806209	5	Amal	English	A+
443900909	10	Basma	Math	A+
443508908	13	Hour	Chemistry	A
443778900	22	Joud	Dtat Science	A
443368910	31	Rawan	Programming	B+

```
Input                                                    [ ]  ☾  ⋮  Run SQL

CREATE TABLE Grade (
 Student_id int (9),
  Student_serial_number int (9),
 Student_name varchar (10),
  Student_course varchar (20),
 Student_grade varchar (20));
  INSERT INTO Grade (Student_id, Student_serial_number , Student_name , Student_course , Student_grade)
   VALUES (443806209, 5 , 'Amal', 'English', 'A+');
  INSERT INTO Grade VALUES (443900909, 10 , 'Basma', 'Math', 'A+');
  INSERT INTO Grade VALUES (443508908, 13 , 'Hour', 'Chemistry', 'A');
  INSERT INTO Grade VALUES (443778900, 22 , 'Joud', 'Dtat Science', 'A');
  INSERT INTO Grade VALUES (443368910, 31,  'Rawan', 'Programming', 'B+');

  SELECT * FROM Grade WHERE Student_grade = 'A';


Output
```

Student_id	Student_serial_number	Student_name	Student_course	Student_grade
443508908	13	Hour	Chemistry	A
443778900	22	Joud	Dtat Science	A

Student Management System queries

these tables, can perform various operations on the student management system using SQL queries. some queries implemention :

1 – select * form student where grade =>90 ;

2 – select * form student where grade = 90 ;


```
SELECT * FROM student WHERE grade = 90 ;
SELECT * FROM student WHERE grade > 90 ;
```

Output

id	name	class	courses	grade
443778900	Joud	Fourth	Dtat Science	90

id	name	class	courses	grade
443806209	Amal	First	English	99
443900909	Basma	Second	Math	96
443508908	Hour	Third	Chemistry	93

Student Management System queries :

1 – select * from Courses where courses_id = 1 ;

2 – select * from Courses where courses_id = 4 ;

```
SELECT * FROM  Courses Where courses_id = 1;
SELECT * FROM  Courses Where courses_id = 4;
```

Output

courses_id	Course_name	Course_type
1	English	onlline

courses_id	Course_name	Course_type
4	Data_Science	Attendance_study

Student Management System queries :

Select *From Garde Where Student_garde = 'A' ;

```
SELECT * FROM Grade WHERE Student_grade = 'A';
```

Output

Student_id	Student_serial_number	Student_name	Student_course	Student_grade
443508908	13	Hour	Chemistry	A
443778900	22	Joud	Dtat Science	A

Student Management System queries :

Select * From registration where registration_student_course = 'Math' ;

```
SELECT * FROM registration WHERE registration_Student_course = 'Math';
```

Output

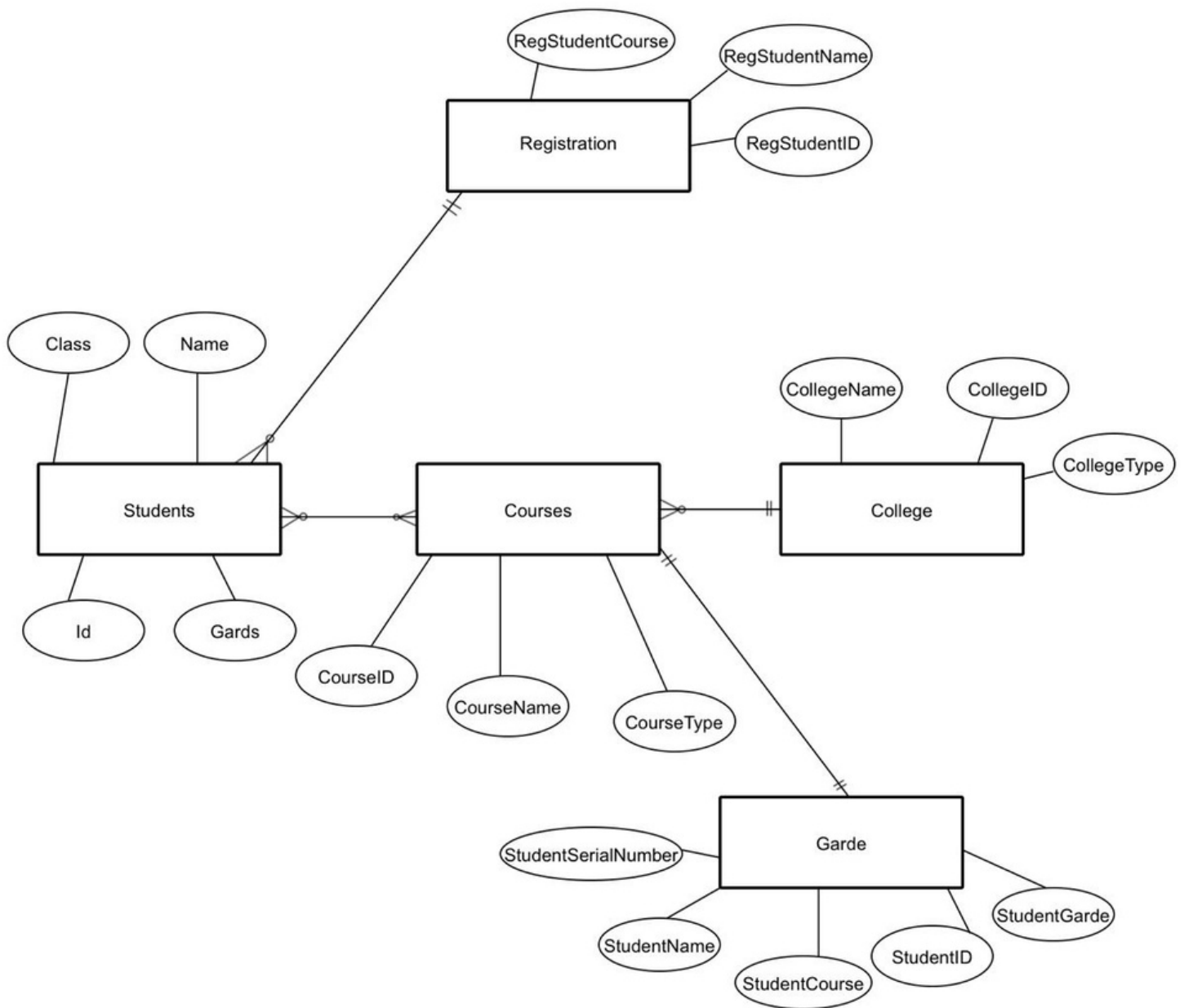| registration_Student_id	registration_Student_name	registration_Student_course
443900909	Basma	Math

Student Management System queries :

Select * From college where college_type= 'online' ;

```
SELECT * FROM College Where College_type='onlline';
```

Output

College_id	College_name	College_type
1	Languages_and_Translation	onlline

ER Diagram

Index:

Index: