

**Name – Ishaan Gupta**

**Batch – c# batch 2**

**Assignment - Student Information System (SIS)**

**Task - 1**

**(question+SQL query+output added below)**

## Q1. Create the database named "SISDB"

```
CREATE DATABASE SISDB;
```

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### Messages

Commands completed successfully.

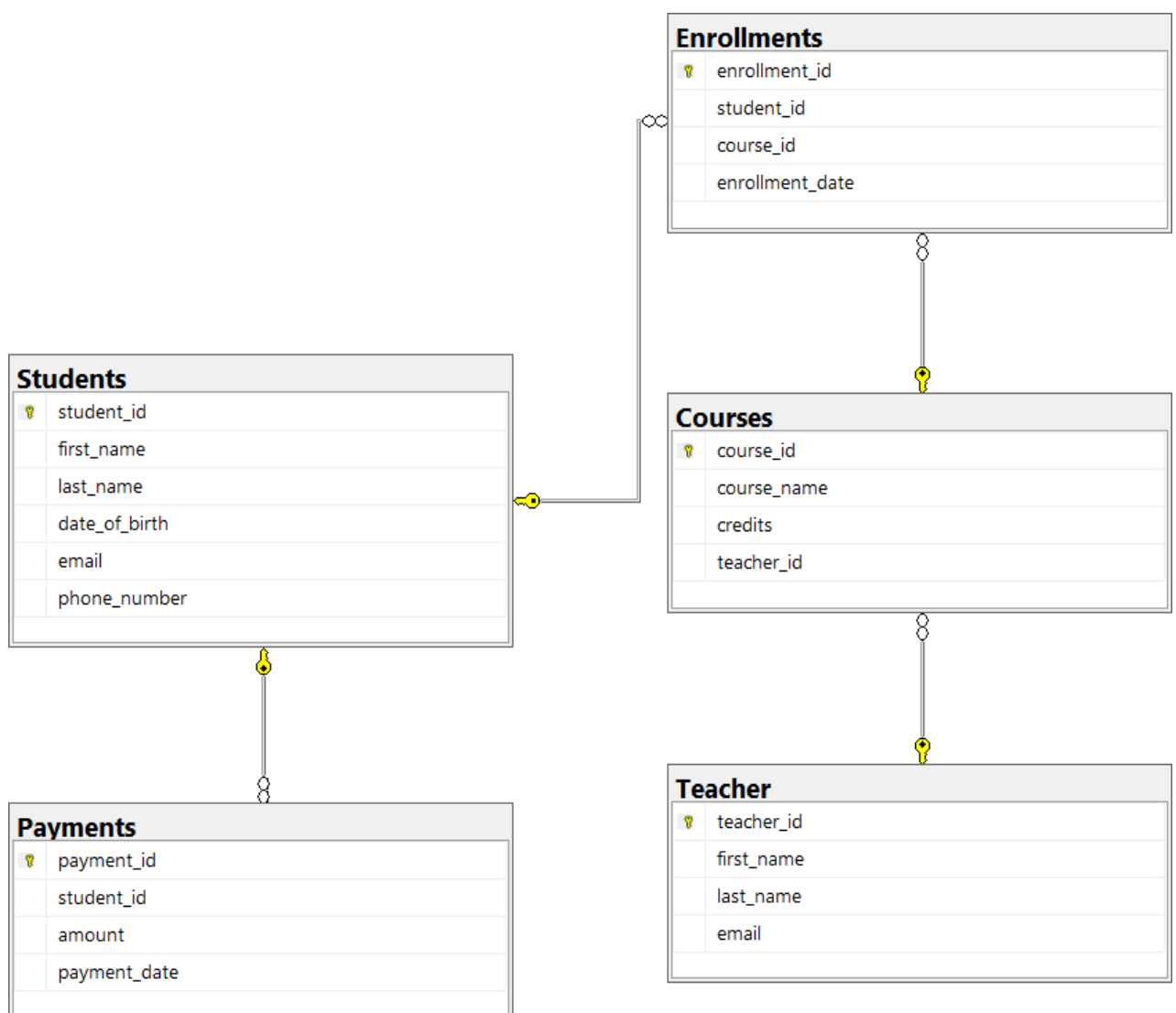
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**Q2) Define the schema for the Students, Courses, Enrollments, Teacher, and Payments tables based on the provided schema. Write SQL scripts to create the mentioned tables with appropriate data types, constraints, and relationships.**

- a. Students**
- b. Courses**
- c. Enrollments**
- d. Teacher**
- e. Payments**

```
task1.sql - DESKTOP...ESS.SISDB (sa (65))  
  
CREATE TABLE Students (  
    student_id INT PRIMARY KEY IDENTITY(1,1),  
    first_name VARCHAR(50),  
    last_name VARCHAR(50),  
    date_of_birth DATE,  
    email VARCHAR(100),  
    phone_number VARCHAR(10)  
);  
  
CREATE TABLE Teacher (  
    teacher_id INT PRIMARY KEY IDENTITY(1,1),  
    first_name VARCHAR(50),  
    last_name VARCHAR(50),  
    email VARCHAR(100)  
);  
  
CREATE TABLE Courses (  
    course_id INT PRIMARY KEY IDENTITY(1,1),  
    course_name VARCHAR(100),  
    credits INT,  
    teacher_id INT,  
    FOREIGN KEY (teacher_id) REFERENCES Teacher(teacher_id)  
);  
  
CREATE TABLE Enrollments (  
    enrollment_id INT PRIMARY KEY IDENTITY(1,1),  
    student_id INT,  
    course_id INT,  
    enrollment_date DATE,  
    FOREIGN KEY (student_id) REFERENCES Students(student_id),  
    FOREIGN KEY (course_id) REFERENCES Courses(course_id)  
);  
  
CREATE TABLE Payments (  
    payment_id INT PRIMARY KEY IDENTITY(1,1),  
    student_id INT,  
    amount DECIMAL(10, 2),  
    payment_date DATE,  
    FOREIGN KEY (student_id) REFERENCES Students(student_id)  
);  
  
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Messages  
Commands completed successfully.  
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```

**Q3) Create an ERD (Entity Relationship Diagram) for the database.**



**Q4) Create appropriate Primary Key and Foreign Key constraints for referential integrity.**

**Q5) Insert at least 10 sample records into each of the following tables.**

**i. Students**

**ii. Courses**

**iii. Enrollments**

**iv. Teacher**

**v. Payments**

```
task1.sql - DESKTOP...ESS.SISDB (sa (65))
INSERT INTO Students (first_name, last_name, date_of_birth, email, phone_number)
VALUES
('Ishaan', 'Gupta', '2000-08-15', 'amit.sharma@example.com', '9876543210'),
('Priya', 'Kapoor', '1996-02-20', 'priya.kapoor@example.com', '9123456789'),
('Ravi', 'Mehta', '1997-12-10', 'ravi.mehta@example.com', '9000000001'),
('Sunita', 'Singh', '1995-05-05', 'sunita.singh@example.com', '8989898989'),
('Rajesh', 'Patel', '1998-09-12', 'rajesh.patel@example.com', '7777777777'),
('John', 'Doe', '1995-08-15', 'john.doe@example.com', '1234567890'),
('Sonal', 'Gupta', '1997-07-15', 'sonal.gupta@example.com', '9999999999'),
('Rohan', 'Joshi', '1996-03-01', 'rohan.joshi@example.com', '9090909090'),
('Manish', 'Rao', '1996-11-10', 'manish.rao@example.com', '8989891234'),
('Anita', 'Nair', '1997-04-20', 'anita.nair@example.com', '8080808080');

INSERT INTO Teacher (first_name, last_name, email)
VALUES
('Varsha', 'Patil', 'varsha.patil@example.com'),
('Seema', 'Joshi', 'seema.joshi@example.com'),
('Vikas', 'Dubey', 'vikas.patil@example.com'),
('Anjali', 'Nair', 'anjali.nair@example.com'),
('Karan', 'Shah', 'karan.shah@example.com'),
('Megha', 'Ghosh', 'megha.ghosh@example.com'),
('Suresh', 'Yadav', 'suresh.yadav@example.com'),
('Vijay', 'Thakur', 'vijay.thakur@example.com'),
('Preeti', 'Reddy', 'preeti.reddy@example.com'),
('Nisha', 'Chauhan', 'nisha.chauhan@example.com');

INSERT INTO Courses (course_name, credits, teacher_id)
VALUES
('Mathematics', 3, 1),
('Physics', 4, 2),
('Chemistry', 3, 3),
('English', 2, 1),
('History', 2, 2),
('Biology', 3, 4),
('Economics', 3, 5),
```

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Messages

(10 rows affected)

(10 rows affected)

(10 rows affected)

(10 rows affected)

70 %