SQL Lab Assignment

This lab is designed to test your understanding of SQL commands including creating tables, inserting data, dropping tables, and working with foreign keys. Use the given schema and sample data to answer the following questions.

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Part A: Table Creation

1. Create a table named studentinfo with the following fields:

rollno (VARCHAR, Primary Key)

name (VARCHAR)

Gender (CHAR)

phone (VARCHAR)

2. Create a table named teacher with the following fields:

id (INT, Primary Key)

name (VARCHAR)

designation (VARCHAR)

department (VARCHAR)

3. Create a table named CLASS with the following fields:

ID (INT, Primary Key)

building (VARCHAR)

roomnum (INT)

Teacherid (INT, Foreign Key referencing teacher(id))

4. Create a table named attendance with the following fields:

rollno (Foreign Key referencing studentinfo(rollno))

date (DATE)

status (CHAR with check constraint 'A' or 'P')

classVenue (Foreign Key referencing CLASS(ID))

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Part B: Insert Data

Insert the following records into the respective tables:

Studentinfo Table:

('L124147' , 'ALI', 'M', '023561-285')

('L230654' , 'NOOR', 'F', '023561-239')

('166234', 'feroze', 'M', '023561-287')

Teacher Table:

(1, 'zesshan rana' , 'professor','software engineer')

(2 , 'zesshan nazar' , 'lecturer','data science')

(3, 'kashif zafar' , 'professor','data science')

Class Table:

(1,'CS',2,1)

(2,'Civil',7,2)

(3,'CS',5,3)

Attendance Table:

('L230844','2016-02-22','P',2)

('L124147','2016-02-22','A',1)

('L230654','2016-02-22','P',2)

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Part C: Drop Data

1. Write a query to delete a student with roll number '166234'.

2. Write a query to delete all records from the attendance table where status is 'A'.

3. Write a query to drop the teacher table.

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Part D: Practice Questions

1. Insert a new teacher named 'Sara Ahmed', designation 'Assistant Professor', department 'Computer Science'.

2. Add a new class in building 'IT' with room number 12 assigned to teacher ID 1.

3. Record attendance for student 'L124147' on '2016-02-23' as 'P' in class ID 2.

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