**Activity 2: Writing SQL Syntax**

**Instructions:**

**#3**
Write the appropriate SQL syntax for the following tasks. Use the examples provided in the lesson as a guide.

1. **Create a table named course_t with the following columns:**

   o course_id (INTEGER, primary key, not null)

   o course_name (VARCHAR(50), not null)

   o credits (INTEGER, not null)

```
107  ●  ⊖  CREATE TABLE course_t(
108              course_id INT PRIMARY KEY NOT NULL,
109              course_name VARCHAR(50) NOT NULL,
110              credits INT NOT NULL
111         );
112
113  ●      SELECT * FROM course_t;
114
```

| | course_id | course_name | credits |
|---|---|---|---|
| ● | NULL | NULL | NULL |

2. **Add a column enrollment_limit (INTEGER) to the course_t table.**

```
115  ●      ALTER TABLE course_t
116          ADD COLUMN enrollment_limit INT;
```

| | course_id | course_name | credits | enrollment_limit |
|---|---|---|---|---|
| ● | NULL | NULL | NULL | NULL |

3. **Insert the following data into the course_t table:**

   o course_id: 101

   o course_name: "Introduction to Databases"

   o credits: 3

```
118 ●    INSERT INTO course_t (course_id, course_name, credits)
119      VALUES (101, 'Introduction to Database', 3);
```

| course_id | course_name | credits | enrollment_limit |
|-----------|-------------|---------|------------------|
| 101 | Introduction to Database | 3 | NULL |
| NULL | NULL | NULL | NULL |

Result Grid | Filter Rows: | Edit: | Expor

4. **Update the credits column for the course with course_id 101 to 4.**

```
121 ●    UPDATE course_t
122      SET credits = 4
123      WHERE course_id = 101;
```

Result Grid | Filter Rows: | Edit:

| course_id | course_name | credits | enrollment_limit |
|-----------|-------------|---------|------------------|
| 101 | Introduction to Database | 4 | NULL |
| NULL | NULL | NULL | NULL |

5. **Revoke permission for a user to query the course_t table.**

```
129
130 ●    REVOKE SELECT ON student.course_t FROM 'john_doe'@'localhost';
131
```

**Instructions:** Write the appropriate SQL syntax for the following tasks.

1. **Create a table student_t with the following columns:**

   o   stud_id (INTEGER, Primary Key, NOT NULL)

   o   stud_name (VARCHAR(50), NOT NULL)

   o   stud_sec (VARCHAR(30))

   o   stud_prog (VARCHAR(20))

   o   stud_yr (VARCHAR(5))

```
134 •    CREATE TABLE student_t (
135              stud_id INT PRIMARY KEY NOT NULL,
136              stud_name VARCHAR (50) NOT NULL,
137              stud_sec VARCHAR (30),
138              stud_prog VARCHAR (20),
139              stud_yr VARCHAR (5)
140      );
141
142 •    SELECT * FROM student_t;
```

Result Grid | Filter Rows: | Edit:

| stud_id | stud_name | stud_sec | stud_prog | stud_yr |
|---------|-----------|----------|-----------|---------|
| NULL | NULL | NULL | NULL | NULL |

2. **Add a column email (VARCHAR(100)) to the student_t table.**

```
144 •    ALTER TABLE student_t
145      ADD email VARCHAR (100);
```

Result Grid | Filter Rows: | Edit:

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| NULL | NULL | NULL | NULL | NULL | NULL |

3. **Insert the following record into the student_t table:**

   o   stud_id: 101,

   o   stud_name: "Alice",

   o   stud_sec: "A",

   o   stud_prog: "CS",

- o   stud_yr: "1"

```
147 •    INSERT INTO student_t (stud_id, stud_name, stud_sec, stud_prog, stud_yr)
148      VALUES (101, 'Alice', 'A', 'CS', '1');
149
```

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| 101     | Alice     | A        | CS        | 1       | NULL  |
| NULL    | NULL      | NULL     | NULL      | NULL    | NULL  |

4. **Write a query to retrieve all records from the student_t table where stud_sec is "A".**

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| 101     | Alice     | A        | CS        | 1       | NULL  |
| 102     | Benedict  | A        | CS        | 3       | NULL  |
| 103     | John      | A        | CS        | 2       | NULL  |
| NULL    | NULL      | NULL     | NULL      | NULL    | NULL  |

```
154 •    SELECT * FROM student_t
155      WHERE stud_yr = '1';
156
```

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| 101     | Alice     | A        | CS        | 1       | NULL  |
| NULL    | NULL      | NULL     | NULL      | NULL    | NULL  |

5. **Delete all records from the student_t table but retain the table structure.**

```
157 •    TRUNCATE TABLE student_t;
158
```

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| NULL    | NULL      | NULL     | NULL      | NULL    | NULL  |

6. **Create a table grades_t with the following constraints:**

- o   grade_id as the Primary Key

- o   stud_id as a Foreign Key referencing student_t

```
160 •  ⊖ CREATE TABLE grade_t(
161            grade_id INT PRIMARY KEY,
162            stud_id INT,
163            FOREIGN KEY (stud_id) REFERENCES student_t(stud_id)
164      );
165
```

**Result Grid** | ⚡ Filter Rows:       | Edit: | Export/Import

| grade_id | stud_id |
|----------|---------|
| NULL | NULL |

7. **Update the stud_yr of the student with stud_id 101 to "2".**

**Result Grid** | ⚡ Filter Rows:      | Edit:

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| ▶ 101 | Alice | A | CS | 1 | NULL |
| * NULL | NULL | NULL | NULL | NULL | NULL |

8. **Write the syntax to remove the email column from the student_t table.**

```
167 •     UPDATE student_t
168       SET stud_yr = 2;
169
170 •     SELECT * FROM student_t;
```

**Result Grid** | ⚡ Filter Rows:      | Edit:

| stud_id | stud_name | stud_sec | stud_prog | stud_yr | email |
|---------|-----------|----------|-----------|---------|-------|
| ▶ 101 | Alice | A | CS | 2 | NULL |
| * NULL | NULL | NULL | NULL | NULL | NULL |

9. **Grant permission to a user to query the student_t table.**

```
172 •    CREATE USER 'Alice'@'localhost';
173
174 •    GRANT SELECT ON student.student_t TO 'Alice'@'localhost';
175
176 •    SELECT User, HOST from mysql.user WHERE User = 'Alice';
177
```

| | User | HOST |
|---|---|---|
| ▶ | Alice | localhost |

10. **Revoke permission for a user to delete records from the student_t table.**

```
178 •    REVOKE SELECT ON student.student_t FROM 'Alice'@'localhost';
```

Output

Action Output ▾

| # | Time | Action |
|---|---|---|
| ✓ | 117 23:29:02 | REVOKE SELECT ON student.student_t FROM 'Alice'@'localhost' |