

NAME	Taimur Kamran
UID	23BCS10578
SECTION	622-A
SUBJECT	ADBMS

Question :Querying Departments Based on Course Count using SQL

Code:

```
DROP TABLE IF EXISTS courses;
```

```
DROP TABLE IF EXISTS fb;
```

```
CREATE TABLE fb (
dept_id INT PRIMARY KEY,
dept_name VARCHAR(50) UNIQUE NOT NULL
);

CREATE TABLE courses(
course_id INT PRIMARY KEY,
course_name VARCHAR(100) NOT NULL,
dept_id INT,
FOREIGN KEY (dept_id) REFERENCES fb(dept_id)
);
```

```
INSERT INTO fb(dept_id, dept_name) VALUES
(1, 'Computer Science'),
(2, 'Electrical'),
(3, 'Mechanical'),
```

```
(4, 'Civil'),
(5, 'Electronics');
INSERT INTO courses(course_id, course_name, dept_id) VALUES
(101, 'DBMS', 1),
(102, 'Operating System', 1),
(111, 'Machine Learning', 1),
(103, 'Power System', 1),
(104, 'Digital Circuits', 2),
(105, 'Thermodynamics', 3),
(106, 'Fluid Mechanics', 3),
(107, 'Structural Engineering', 4),
(108, 'Surveying', 4),
(109, 'Embedded System', 5),
(110, 'VLSI Design', 5);
```

```
SELECT dept_name
FROM fb
WHERE dept_id IN (
    SELECT dept_id
    FROM courses
    GROUP BY dept_id
    HAVING COUNT(course_id) > 2
);
```

OUTPUT:

Output	
dept_name	Computer Science

Available TABLE:

TABLE 1:

Available Tables		
Courses		
course_id	course_name	dept_id
101	DBMS	1
102	Operating System	1
103	Machine Learning	1
104	Power System	1
105	Digital Circuits	2
106	Thermodynamics	3
107	Fluid Mechanics	3
108	Structural Engineering	4
109	Surveying	4
110	Embedded System	5
110	VLSI Design	5

TABLE 2:

Fb	
dept_id	dept_name
1	Computer Science
2	Electrical
3	Mechanical
4	Civil
5	Electronics