

ADBMS Exp-2

NAME - AKASH

UID - 23BCC70039

Part-A

-- Drop tables if they already exist (optional for re-runs)

DROP TABLE IF EXISTS Courses;

DROP TABLE IF EXISTS Departments;

-- Create Departments table

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

-- Create Courses table

```
CREATE TABLE Courses (  
    course_id INT PRIMARY KEY,  
    course_name VARCHAR(100) NOT NULL,  
    dept_id INT,  
    FOREIGN KEY (dept_id) REFERENCES Departments(dept_id)  
        ON DELETE CASCADE  
        ON UPDATE CASCADE  
);
```

Part - B

-- Insert into Departments

```
INSERT INTO Departments (dept_id, dept_name) VALUES  
(1, 'Computer Science'),  
(2, 'Electrical'),  
(3, 'Mechanical'),  
(4, 'Civil'),  
(5, 'Electronics');
```

-- Insert into Courses

```
INSERT INTO Courses (course_id, course_name, dept_id) VALUES  
(101, 'DBMS', 1),  
(102, 'Operating Systems', 1),  
(111, 'Data Structures', 1),  
(103, 'Power Systems', 2),  
(104, 'Digital Circuits', 2),  
(112, 'Control Systems', 2),  
(105, 'Thermodynamics', 3),
```

(106, 'Fluid Mechanics', 3),
(107, 'Structural Engineering', 4),
(108, 'Surveying', 4),
(109, 'Embedded Systems', 5),
(110, 'VLSI Design', 5),
(113, 'Microprocessors', 5);

Part - C

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

Part - D

```
GRANT SELECT ON Courses TO 'viewer_user';
```