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Lab Quiz

- 1) SELECT DISTINCT COURSE.CourseName
FROM COURSE,SECTION
WHERE COURSE.CourseNumber=SECTION.CourseNumber
AND SECTION.Year BETWEEN 2001 AND 2004;

```
MariaDB [cs621_university]> SELECT DISTINCT COURSE.CourseName
-> FROM COURSE,SECTION
-> WHERE COURSE.CourseNumber=SECTION.CourseNumber
-> AND SECTION.Year BETWEEN 2001 AND 2004;

+-----+
| CourseName |
+-----+
| DMS        |
| DSA        |
| OS         |
+-----+
3 rows in set (0.001 sec)
```

- 2) CREATE TABLE Student_Report (
StudentNumber int not null,
SectionIdentifier int not null,
marks int,
PRIMARY KEY(StudentNumber, SectionIdentifier),
FOREIGN KEY(StudentNumber) REFERENCES STUDENT(StudentNumber),
FOREIGN KEY(SectionIdentifier) REFERENCES SECTION(SectionIdentifier)
);

```
MariaDB [cs621_university]> select * from student_report;
```

| StudentNumber | SectionIdentifier | marks |
|---------------|-------------------|-------|
| 15 | 1 | 100 |
| 15 | 2 | 100 |
| 15 | 3 | 100 |
| 15 | 6 | 100 |
| 17 | 4 | 60 |
| 17 | 5 | 80 |
| 154 | 4 | 60 |
| 154 | 5 | 80 |

```
8 rows in set (0.000 sec)
```

```
3) CREATE TABLE student_result (
    StudentNumber int not null,
    Totalmarks int
);
```

```
INSERT into student_result(StudentNumber, Totalmarks)
SELECT StudentNumber,
    SUM(marks)
FROM Student_Report
GROUP BY StudentNumber;
```

```
DELIMITER $$
```

```
CREATE or REPLACE TRIGGER update_total_marks
```

```
AFTER INSERT ON Student_Report
```

```
FOR EACH ROW
```

```
BEGIN
```

```
    UPDATE student_result
```

```
    SET Totalmarks = Totalmarks + NEW.marks
```

```
    WHERE StudentNumber = NEW.StudentNumber;
```

```
END;
```

```
$$
```

DELIMITER ;

```
MariaDB [cs621_university]> select * from student_result;
```

| StudentNumber | Totalmarks |
|---------------|------------|
| 15 | 400 |
| 17 | 140 |
| 154 | 140 |

3 rows in set (0.000 sec)

```
MariaDB [cs621_university]> insert into student_report values(15, 9, 50);  
Query OK, 1 row affected (0.076 sec)
```

```
MariaDB [cs621_university]> select * from student_result;
```

| StudentNumber | Totalmarks |
|---------------|------------|
| 15 | 450 |
| 17 | 140 |
| 154 | 140 |

3 rows in set (0.000 sec)

4) ALTER TABLE student_result

ADD Remarks varchar(30);

DELIMITER \$\$

CREATE function get_remarks(major varchar(4))

RETURNS varchar(30)

BEGIN

DECLARE remarks varchar(30);

IF major = 'CS' THEN

SET remarks = 'Computer Science Engg';

ELSEIF major = 'EC' THEN

SET remarks = 'Electronics Engg';

ELSE

SET remarks = 'Other';

END IF;

RETURN remarks;

END;

\$\$

DELIMITER ;

DELIMITER \$\$

CREATE or REPLACE TRIGGER update_remarks

AFTER INSERT ON STUDENT

FOR EACH ROW

BEGIN

UPDATE student_result

SET Remarks = get_remarks(NEW.Major)

WHERE StudentNumber = NEW.StudentNumber;

END;

\$\$

DELIMITER ;

INSERT INTO STUDENT

VALUES ('Adi', 18, 4, 'CS');

```
MariaDB [cs621_university]> select * from student_result;
```

| StudentNumber | Totalmarks | Remarks |
|---------------|------------|-----------------------|
| 15 | 450 | NULL |
| 17 | 140 | NULL |
| 154 | 140 | NULL |
| 18 | 0 | Computer Science Engg |

4 rows in set (0.000 sec)

```
MariaDB [cs621_university]> |
```