

1. **Introduction** : UNION, UNION ALL, On Delete, Triggers, Date and Time
2. **Set Operation** : Non-repeated, sorted(not mandatory always).

Operations :

UNION →

UNION

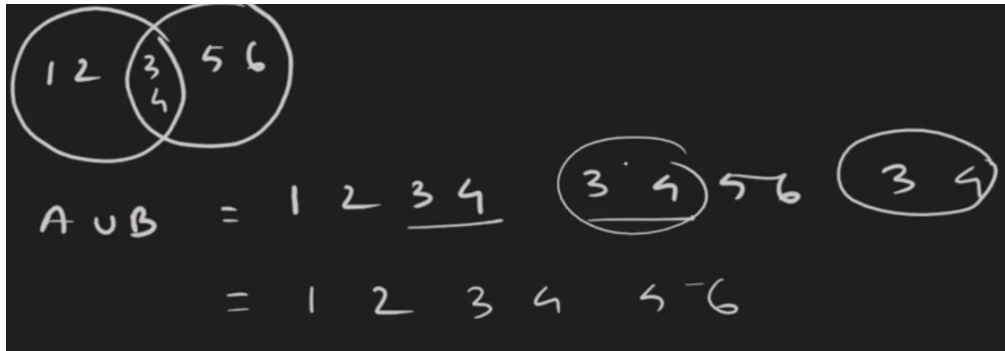
$$A = \{1, 2, 3, 4\}$$
$$B = \{5, 6, 7, 8\}$$
$$A \text{ UNION } B$$
$$A \cup B = \{1, 2, 3, 4\} \cup \{5, 6, 7, 8\}$$
$$= \{1, 2, 3, 4, 5, 6, 7, 8\}$$

$$A - B = A \setminus B = A - (A \cap B)$$

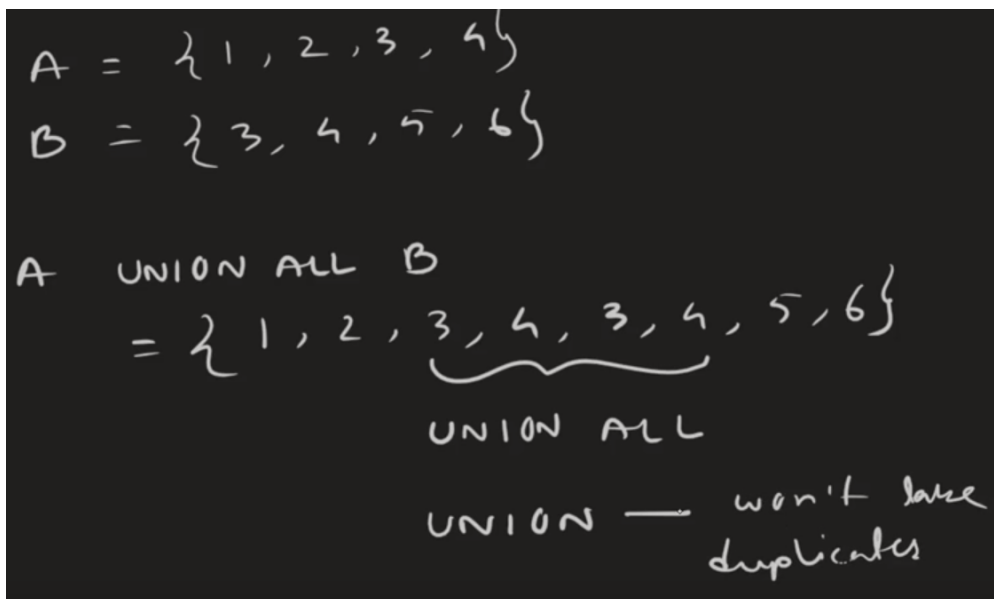
$$A = \{1, 2, 3, 4\}$$
$$B = \{3, 4, 5, 6\}$$
$$A - B = A \setminus B = \{1, 2\}$$
$$B - A = B \setminus A = \{5, 6\}$$

3. **Set Operations Syntax** : UNION, UNION ALL, MINUS etc.

UNION : → $A \cup B = A + B - A \cap B$. **Discarding duplicates.**



UNION ALL : $\rightarrow A \cup B = A + B$. **With duplicates**. No discarding



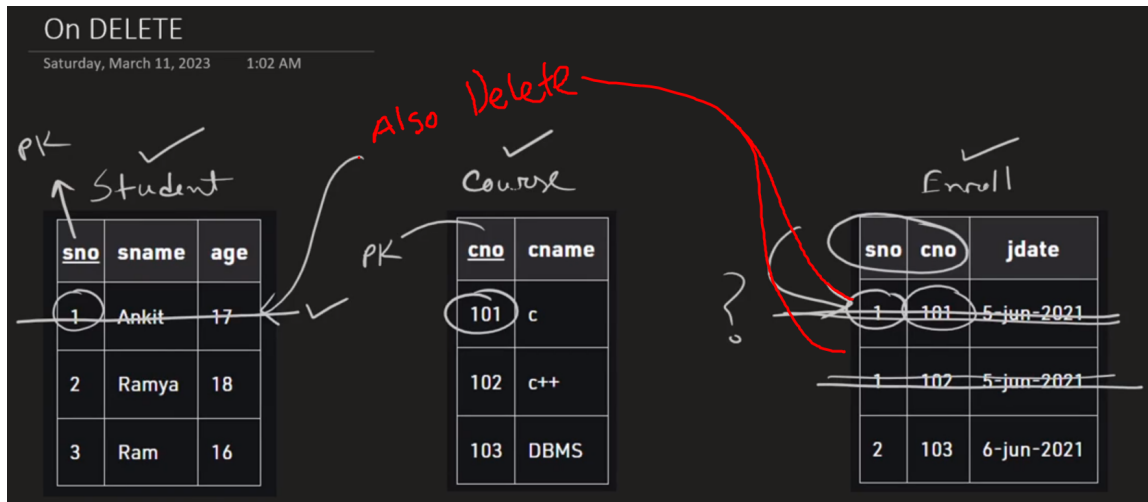
MINUS : \rightarrow

$$\begin{aligned} A &= \{1, 2, \underline{3}, 4\} \\ B &= \{3, \underline{4}, 5, 6\} \\ A \text{ MINUS } B &= A \setminus B = A - B \\ &= \{1, 2\} \end{aligned}$$

Syntax : Column/Field Name will be the first SELECT's name. Two SELECT Statement's column/field count **MUST BE THE SAME** in number,

```
SELECT roll
FROM Student
UNION / UNION ALL / MINUS
SELECT id
FROM Teacher ;
```

- 4. ON DELETE CASCADE** : record deleted from main table will also delete its related tables.



Syntax :

FOREIGN KEY (cno)
REFERENCES Course(cno)
ON DELETE CASCADE

5. **TRIGGER** : Alert / Prompt

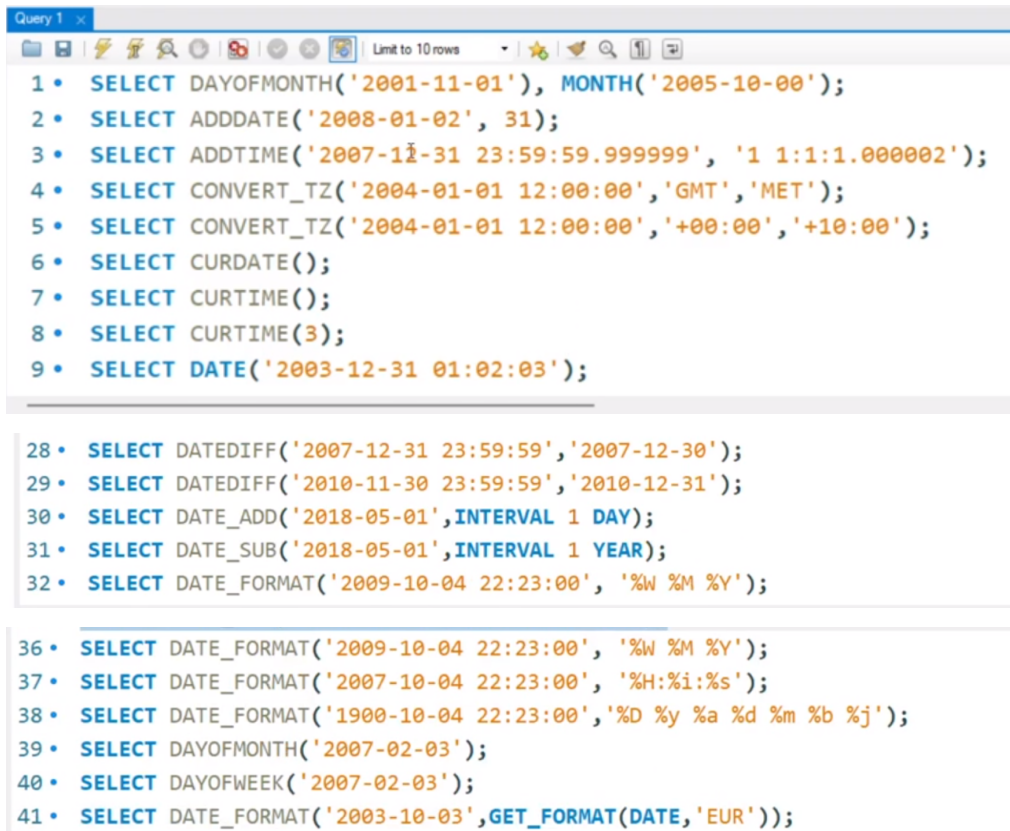
→ CREATE TRIGGER ln_cap

→ BEFORE INSERT ON Employee

→ FOR EACH ROW

→ SET NEW.name = UPPER(NEW.name)

6. Date and Time :



The screenshot shows a SQL query editor window titled "Query 1". The editor contains a list of SQL queries numbered 1 through 41. The queries demonstrate various date and time functions in SQL, including DAYOFMONTH, MONTH, ADDDATE, ADDTIME, CONVERT_TZ, CURDATE, CURTIME, DATEDIFF, DATE_ADD, DATE_SUB, DATE_FORMAT, and GET_FORMAT. The queries are organized into three sections, with the first section containing queries 1-9, the second section containing queries 28-32, and the third section containing queries 36-41. The editor interface includes a toolbar with icons for undo, redo, save, and other standard editing functions, and a status bar at the bottom indicating "Limit to 10 rows".

```
1 • SELECT DAYOFMONTH('2001-11-01'), MONTH('2005-10-00');
2 • SELECT ADDDATE('2008-01-02', 31);
3 • SELECT ADDTIME('2007-11-31 23:59:59.999999', '1 1:1:1.000002');
4 • SELECT CONVERT_TZ('2004-01-01 12:00:00', 'GMT', 'MET');
5 • SELECT CONVERT_TZ('2004-01-01 12:00:00', '+00:00', '+10:00');
6 • SELECT CURDATE();
7 • SELECT CURTIME();
8 • SELECT CURTIME(3);
9 • SELECT DATE('2003-12-31 01:02:03');

28 • SELECT DATEDIFF('2007-12-31 23:59:59', '2007-12-30');
29 • SELECT DATEDIFF('2010-11-30 23:59:59', '2010-12-31');
30 • SELECT DATE_ADD('2018-05-01', INTERVAL 1 DAY);
31 • SELECT DATE_SUB('2018-05-01', INTERVAL 1 YEAR);
32 • SELECT DATE_FORMAT('2009-10-04 22:23:00', '%W %M %Y');

36 • SELECT DATE_FORMAT('2009-10-04 22:23:00', '%W %M %Y');
37 • SELECT DATE_FORMAT('2007-10-04 22:23:00', '%H:%i:%s');
38 • SELECT DATE_FORMAT('1900-10-04 22:23:00', '%D %y %a %d %m %b %j');
39 • SELECT DAYOFMONTH('2007-02-03');
40 • SELECT DAYOFWEEK('2007-02-03');
41 • SELECT DATE_FORMAT('2003-10-03', GET_FORMAT(DATE, 'EUR'));
```

7. Summary