CPK 2 Basis Data Agung Gumilang 200602034

1. Before Delete

```
MariaDB [sistem_informasi]> DELIMITER //
MariaDB [sistem_informasi]> create trigger ad_history
    -> before delete on mata_kuliah
    -> for each row
    -> begin
    -> insert into history
    -> set
    -> id_mk = old.id_mk,
    -> kode_mk = old.kode_mk,
    -> nama_mk = old.nama_mk,
    -> kode_dosen = old.kode_dosen,
    -> aksi = 'Before Delete';
    -> end //
Query OK, 0 rows affected (0.042 sec)

MariaDB [sistem_informasi]> delete from mata_kuliah where nama_mk = 'PWEB';
    -> //
Query OK, 1 row affected (0.076 sec)

MariaDB [sistem_informasi]> select * from history//
+-------+-------------+---------+------------+---------------+
| id_mk | kode_mk     | nama_mk | kode_dosen | aksi          |
+-------+-------------+---------+------------+---------------+
|     1 | 19005223445 | PWEB    |        121 | Before Delete |
+-------+-------------+---------+------------+---------------+
1 row in set (0.001 sec)

MariaDB [sistem_informasi]>
    -> kode_mk = old.kode_mk,
```

2. Left Join

```
MariaDB [sistem_informasi]> select dosen.nama_dsn, dosen.kode_dosen, mata_kuliah.kode_dosen, mata_kuliah.nama_mk
    -> from dosen
    -> left join mata_kuliah on dosen.kode_dosen = mata_kuliah.kode_dosen
    -> order by dosen.nama_dsn;
+---------------------------------------+------------+------------+-------------------+
| nama_dsn                              | kode_dosen | kode_dosen | nama_mk           |
+---------------------------------------+------------+------------+-------------------+
| Darmawan Aditama, S.Kom., M.T.        |        445 | NULL       | NULL              |
| Harunur Rosyid, ST.,M.Kom             |        121 |        121 | PWEB              |
| Henny Dwi Bhakti, S.Si., M.Si.        |        354 | NULL       | NULL              |
| Indra Gita Anugrah, S.Kom., M.Kom     |        733 |        733 | Basis Data Lanjut |
| Putri Aisyiyah Rakhma Devi, S.Pd., M.Kom |     466 |        466 | PBO               |
| Umi Chotijah, S.Kom., M.Kom           |        145 |        145 | Basis Data        |
+---------------------------------------+------------+------------+-------------------+
6 rows in set (0.002 sec)
```

3. Inner Join

```
MariaDB [sistem_informasi]> select dosen.nama_dsn, dosen.kode_dosen, mata_kuliah.kode_dosen, mata_kuliah.nama_mk
    -> from dosen
    -> inner join mata_kuliah on dosen.kode_dosen = mata_kuliah.kode_dosen
    -> order by dosen.nama_dsn;
+---------------------------------------+------------+------------+-------------------+
| nama_dsn                              | kode_dosen | kode_dosen | nama_mk           |
+---------------------------------------+------------+------------+-------------------+
| Harunur Rosyid, ST.,M.Kom             |        121 |        121 | PWEB              |
| Indra Gita Anugrah, S.Kom., M.Kom     |        733 |        733 | Basis Data Lanjut |
| Putri Aisyiyah Rakhma Devi, S.Pd., M.Kom |     466 |        466 | PBO               |
| Umi Chotijah, S.Kom., M.Kom           |        145 |        145 | Basis Data        |
+---------------------------------------+------------+------------+-------------------+
4 rows in set (0.002 sec)
```

4. After Insert

```
MariaDB [sistem_informasi]> create trigger al_history
    -> after insert on mata_kuliah
    -> for each row
    -> begin
    -> insert into history
    -> set
    -> id_mk = now.id_mk,
    -> nama_mk = now.nama_mk,
    -> kode_dosen = now.kode_dosen,
    -> aksi = 'After Insert';
    -> end//
Query OK, 0 rows affected (0.031 sec)
```

```
MariaDB [sistem_informasi]> INSERT INTO history(id_mk, kode_mk, nama_mk, kode_dosen, aksi)
    -> VALUES
    ->      ('10', '7898878979', 'PTR',085746178850,'After Insert');
    -> //
Query OK, 1 row affected, 1 warning (0.003 sec)

MariaDB [sistem_informasi]> select * from history;
    -> //
+-------+-------------+---------+------------+--------------+
| id_mk | kode_mk     | nama_mk | kode_dosen | aksi         |
+-------+-------------+---------+------------+--------------+
|     0 | 7898878979  | PTR     | 2147483647 |              |
|     1 | 19005223445 | PWEB    |        121 | Before Delete |
|    10 | 7898878979  | PTR     | 2147483647 | After Insert |
+-------+-------------+---------+------------+--------------+
3 rows in set (0.001 sec)
```

5. Right Join

```
MariaDB [sistem_informasi]> select dosen.nama_dsn, dosen.kode_dosen, mata_kuliah.kode_dosen, mata_kuliah.nama_mk
    -> from dosen
    -> right join mata_kuliah on dosen.kode_dosen = mata_kuliah.kode_dosen
    -> order by dosen.nama_dsn;
+-------------------------------------------+------------+------------+-------------------+
| nama_dsn                                  | kode_dosen | kode_dosen | nama_mk           |
+-------------------------------------------+------------+------------+-------------------+
| Harunur Rosyid, ST.,M.Kom                 |        121 |        121 | PWEB              |
| Indra Gita Anugrah, S.Kom., M.Kom         |        733 |        733 | Basis Data Lanjut |
| Putri Aisyiyah Rakhma Devi, S.Pd., M.Kom  |        466 |        466 | PBO               |
| Umi Chotijah, S.Kom., M.Kom               |        145 |        145 | Basis Data        |
+-------------------------------------------+------------+------------+-------------------+
4 rows in set (0.002 sec)
```