



NAMA : Adani Salsabila  
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MATERI : UAS BASIS DATA

1. Membuat database di Mysql dengan nama DB\_2341720123\_PEGAWAI\_UJIAN

```
ON FOR the right syntax to use near 'DATABASE DB_2341720123_PEGAWAI_UJIAN' at line 1
MariaDB [(none)]> CREATE DATABASE DB_2341720123_PEGAWAI_UJIAN;
Query OK, 1 row affected (0.001 sec)
```

2. Membuat 3 tabel sesuai diagram.

- a. T\_PEGAWAI

```
MariaDB [(none)]> use DB_2341720123_PEGAWAI_UJIAN;
Database changed
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> create table T_PEGAWAI (
  -> nopeg char (4) primary key,
  -> nama varchar (25),
  -> golongan smallint,
  -> alamat varchar(50),
  -> masakerja smallint);
Query OK, 0 rows affected (0.038 sec)
```

- b. T\_GAJI

```
tunjangan bigint) at line 4
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> create table T_GAJI (
  -> bulan smallint not null,
  -> tahun smallint not null,
  -> primary key (bulan, tahun),
  -> nopeg char (4),
  -> foreign key (nopeg) references T_PEGAWAI (nopeg),
  -> gaji_pokok bigint,
  -> tunjangan bigint);
Query OK, 0 rows affected (0.059 sec)
```

- c. T\_ABSENSI

```
Command Prompt - mysql -u root
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> create table T_ABSENSI (
  -> nopeg char (4),
  -> foreign key (nopeg) references T_PEGAWAI (nopeg),
  -> bulan smallint,
  -> tahun smallint,
  -> sakit smallint,
  -> ijin smallint,
  -> alpha smallint);
Query OK, 0 rows affected (0.055 sec)

Database changed
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> alter table T_ABSENSI add constraint bulan foreign key (bulan) references T_GAJI (bulan);
Query OK, 0 rows affected (0.128 sec)
Records: 0 Duplicates: 0 Warnings: 0
```



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### 3. Mengisi tabel

#### a. T\_PEGAWAI

```
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> insert into T_PEGAWAI (nopeg, nama, golongan, alamat, masakerja) values (1111, 'jaemin', 1, 'malang', '25'), (1112, 'jeno', 2, 'surabaya', '11'), (1113, 'haechan', 4, 'bangil', '10'), (1114, 'jisung', 6, 'tulungagung', '5'), (1115, 'mark', 8, 'sragen', '28');
Query OK, 5 rows affected (0.127 sec)
Records: 5 Duplicates: 0 Warnings: 0

MariaDB [DB_2341720123_PEGAWAI_UJIAN]> select * from T_PEGAWAI;
+-----+-----+-----+-----+-----+
| nopeg | nama | golongan | alamat | masakerja |
+-----+-----+-----+-----+-----+
| 1111 | jaemin | 1 | malang | 25 |
| 1112 | jeno | 2 | surabaya | 11 |
| 1113 | haechan | 4 | bangil | 10 |
| 1114 | jisung | 6 | tulungagung | 5 |
| 1115 | mark | 8 | sragen | 28 |
+-----+-----+-----+-----+-----+
5 rows in set (0.001 sec)
```

#### b. T\_GAJI (membuat tabel baru tanpa primary key karena yang di atas error tidak bisa diinsert)

30 rows inserted. (Query took 0.0005 seconds.)

```
INSERT INTO T_GAJI (nopeg, bulan, tahun, gaji_pokok, tunjangan) VALUES ('1111', 1, 2024, 5000000, 1000000), ('1111', 2, 2024, 5000000, 1000000), ('1111', 3, 2024, 5000000, 1000000), ('1111', 4, 2024, 5000000, 1000000), ('1111', 5, 2024, 5000000, 1000000), ('1111', 6, 2024, 5000000, 1000000), ('1112', 1, 2024, 5500000, 1200000), ('1112', 2, 2024, 5500000, 1200000), ('1112', 3, 2024, 5500000, 1200000), ('1112', 4, 2024, 5500000, 1200000), ('1112', 5, 2024, 5500000, 1200000), ('1112', 6, 2024, 5500000, 1200000), ('1113', 1, 2024, 6000000, 1500000), ('1113', 2, 2024, 6000000, 1500000), ('1113', 3, 2024, 6000000, 1500000), ('1113', 4, 2024, 6000000, 1500000), ('1113', 5, 2024, 6000000, 1500000), ('1113', 6, 2024, 6000000, 1500000), ('1114', 1, 2024, 5200000, 1100000), ('1114', 2, 2024, 5200000, 1100000), ('1114', 3, 2024, 5200000, 1100000), ('1114', 4, 2024, 5200000, 1100000), ('1114', 5, 2024, 5200000, 1100000), ('1114', 6, 2024, 5200000, 1100000), ('1115', 1, 2024, 4800000, 2000000), ('1115', 2, 2024, 4800000, 2000000), ('1115', 3, 2024, 4800000, 2000000), ('1115', 4, 2024, 4800000, 2000000), ('1115', 5, 2024, 4800000, 2000000), ('1115', 6, 2024, 4800000, 2000000);
```

```
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> select * from T_GAJI;
+-----+-----+-----+-----+-----+
| nopeg | bulan | tahun | gaji_pokok | tunjangan |
+-----+-----+-----+-----+-----+
| 1111 | 1 | 2024 | 5000000 | 1000000 |
| 1111 | 2 | 2024 | 5000000 | 1000000 |
| 1111 | 3 | 2024 | 5000000 | 1000000 |
| 1111 | 4 | 2024 | 5000000 | 1000000 |
| 1111 | 5 | 2024 | 5000000 | 1000000 |
| 1111 | 6 | 2024 | 5000000 | 1000000 |
| 1112 | 1 | 2024 | 5500000 | 1200000 |
| 1112 | 2 | 2024 | 5500000 | 1200000 |
| 1112 | 3 | 2024 | 5500000 | 1200000 |
| 1112 | 4 | 2024 | 5500000 | 1200000 |
| 1112 | 5 | 2024 | 5500000 | 1200000 |
| 1112 | 6 | 2024 | 5500000 | 1200000 |
| 1113 | 1 | 2024 | 6000000 | 1500000 |
| 1113 | 2 | 2024 | 6000000 | 1500000 |
| 1113 | 3 | 2024 | 6000000 | 1500000 |
| 1113 | 4 | 2024 | 6000000 | 1500000 |
| 1113 | 5 | 2024 | 6000000 | 1500000 |
| 1113 | 6 | 2024 | 6000000 | 1500000 |
| 1114 | 1 | 2024 | 5200000 | 1100000 |
| 1114 | 2 | 2024 | 5200000 | 1100000 |
| 1114 | 3 | 2024 | 5200000 | 1100000 |
| 1114 | 4 | 2024 | 5200000 | 1100000 |
| 1114 | 5 | 2024 | 5200000 | 1100000 |
| 1114 | 6 | 2024 | 5200000 | 1100000 |
| 1115 | 1 | 2024 | 4800000 | 2000000 |
| 1115 | 2 | 2024 | 4800000 | 2000000 |
| 1115 | 3 | 2024 | 4800000 | 2000000 |
| 1115 | 4 | 2024 | 4800000 | 2000000 |
| 1115 | 5 | 2024 | 4800000 | 2000000 |
| 1115 | 6 | 2024 | 4800000 | 2000000 |
+-----+-----+-----+-----+-----+
30 rows in set (0.001 sec)
```



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- c. T\_ABSENSI (membuat tabel baru tanpa foreign key karena yang awal error tidak bisa diinsert dikarenakan ada duplicate primary key)

```
Run SQL query/queries on table db_2341720123_pegawai_ujian.t_absensi:

1 INSERT INTO t_absensi (nopeg, bulan, tahun, sakit, ijin, alpha) VALUES
2 ('1111', 1, 2024, 2, 1, 0),
3 ('1111', 2, 2024, 1, 0, 1),
4 ('1111', 3, 2024, 3, 0, 0),
5 ('1111', 4, 2024, 0, 2, 0),
6 ('1111', 5, 2024, 1, 0, 1),
7 ('1111', 6, 2024, 0, 1, 0),
8
9 ('1112', 1, 2024, 0, 1, 1),
10 ('1112', 2, 2024, 1, 0, 0),
11 ('1112', 3, 2024, 0, 0, 2),
12 ('1112', 4, 2024, 2, 0, 0),
13 ('1112', 5, 2024, 1, 0, 1),
14 ('1112', 6, 2024, 0, 1, 0),
15
16 ('1113', 1, 2024, 1, 0, 1),
17 ('1113', 2, 2024, 0, 2, 0),
18 ('1113', 3, 2024, 1, 0, 0),
19 ('1113', 4, 2024, 0, 1, 1),
20 ('1113', 5, 2024, 2, 0, 0),
21
22
23 ('1114', 1, 2024, 0, 0, 1),
24 ('1114', 2, 2024, 1, 1, 0),
25 ('1114', 3, 2024, 0, 1, 1),
26 ('1114', 4, 2024, 1, 0, 1),
27 ('1114', 5, 2024, 0, 1, 0),
28 ('1114', 6, 2024, 1, 0, 1),
29
30 ('1115', 1, 2024, 0, 1, 0),
31 ('1115', 2, 2024, 1, 0, 1),
32 ('1115', 3, 2024, 0, 2, 0),
33 ('1115', 4, 2024, 1, 0, 1),
34 ('1115', 5, 2024, 0, 1, 0),
35 ('1115', 6, 2024, 1, 0, 1),
36
```

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> select * from T_ABSENSI;
```

nopeg	bulan	tahun	sakit	ijin	alpha
1111	1	2024	2	1	0
1111	2	2024	1	0	1
1111	3	2024	3	0	0
1111	4	2024	0	2	0
1111	5	2024	1	0	1
1111	6	2024	0	1	0
1112	1	2024	0	1	1
1112	2	2024	1	0	0
1112	3	2024	0	0	2
1112	4	2024	2	0	0
1112	5	2024	1	0	1
1112	6	2024	0	1	0
1113	1	2024	1	0	1
1113	2	2024	0	2	0
1113	3	2024	1	0	0
1113	4	2024	0	1	1
1113	5	2024	2	0	0
1113	6	2024	0	1	1
1114	1	2024	0	0	1
1114	2	2024	1	1	0
1114	3	2024	0	1	0
1114	4	2024	1	0	1
1114	5	2024	0	1	0
1114	6	2024	1	0	1
1115	1	2024	0	1	0
1115	2	2024	1	0	1
1115	3	2024	0	2	0
1115	4	2024	1	0	1
1115	5	2024	0	1	0
1115	6	2024	1	0	1

30 rows in set (0.001 sec)



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#### 4. Query

- a. Daftar pegawai dengan masa kerja di atas 10 tahun.

```
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> select nopeg, nama, masakerja from T_PEGAWAI where masakerja > 10;
```

nopeg	nama	masakerja
1111	jaemin	25
1112	jeno	11
1115	mark	28

3 rows in set (0.001 sec)

- b. Total alpha, ijin, sakit semua pegawai dalam satu tahun 2024.

```
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> select abs.nopeg, peg.nama, sum(sakit) as tot_sakit, sum(ijin) as tot_ijin, sum(alpha) as tot_alpha from T_ABSENSI abs left join T_PEGAWAI peg on peg.nopeg = abs.nopeg group by nopeg;
```

nopeg	nama	tot_sakit	tot_ijin	tot_alpha
1111	jaemin	7	4	2
1112	jeno	4	2	4
1113	haechan	4	4	3
1114	jisung	3	3	4
1115	mark	3	4	3

5 rows in set (0.001 sec)

- c. Jika setiap ketidakhadiran pegawai dipotong (sakit 20.000, ijin 50.000, alpha 100.000), tampilkan pendapatan setiap pegawai selama tahun 2024 setelah dipotong ketidakhadiran.

```
MariaDB [DB_2341720123_PEGAWAI_UJIAN]> SELECT T_PEGAWAI.nopeg, T_PEGAWAI.nama, T_GAJI.tahun, SUM(T_GAJI.gaji_pokok + T_GAJI.tunjangan - (T_ABSENSI.sakit * 20000 + T_ABSENSI.ijin * 50000 + T_ABSENSI.alpha * 100000)) AS total_pendapatan FROM T_PEGAWAI JOIN T_GAJI ON T_PEGAWAI.nopeg = T_GAJI.nopeg JOIN T_ABSENSI ON T_PEGAWAI.nopeg = T_ABSENSI.nopeg AND T_GAJI.bulan = T_ABSENSI.bulan AND T_GAJI.tahun = T_ABSENSI.tahun GROUP BY T_PEGAWAI.nopeg, T_PEGAWAI.nama, T_GAJI.tahun;
```

nopeg	nama	tahun	total_pendapatan
1111	jaemin	2024	35460000
1112	jeno	2024	39620000
1113	haechan	2024	44420000
1114	jisung	2024	37190000
1115	mark	2024	40240000

5 rows in set (0.002 sec)