

Praktikum 2 Sistem Basis Data 2024

NRP / Nama : 5025241146 / Yoseph Kevin Hendrata

Kelas : SBD - A

RDBMS : MySQL

Link SQL : <https://its.id/m/146-Pendahuluan2-SBD>

Kode Asdos : SBD-A01 – Ahmad Fatih Ramadhani

Sesi : Pendahuluan, 6 November 2024

Query SQL dapat dilihat di Link SQL

1. Pembuatan Tabel dalam Database + Isi Tabel

| flapzzz Database: bandara_horizon ▶ 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql* | | | | | | | | |
|--|------|----------|----------------------|---------|--------|---------|-------|--|
| Name ^ | Rows | Size | Created | Updated | Engine | Comment | Type | |
| bagasi | 0 | 16,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| bandara | 0 | 16,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| bandara_pener... | 0 | 32,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| maskapai | 0 | 16,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| penerbangan | 0 | 32,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| penumpang | 0 | 32,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| pesawat | 0 | 32,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |
| tiket | 0 | 48,0 KiB | 2024-11-06 21:41:... | | InnoDB | | Table | |

| flapzzz Database: bandara_horizon ▶ 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql | | | | | | | | |
|---|------|----------|----------------------|----------------------|--------|---------|-------|--|
| Name ^ | Rows | Size | Created | Updated | Engine | Comment | Type | |
| bagasi | 4 | 16,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| bandara | 4 | 16,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| bandara_pener... | 4 | 32,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| maskapai | 4 | 16,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| penerbangan | 4 | 32,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| penumpang | 4 | 32,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| pesawat | 4 | 32,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |
| tiket | 4 | 48,0 KiB | 2024-11-06 21:41:... | 2024-11-06 21:42:... | InnoDB | | Table | |

flapzzz Database: bandara_horizon Table: bagasi Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

bandara_horizon.bagasi: 4 rows total (exact)

>> Next

Show

| # | ID_Bagasi | Berat | Ukuran | Warna | Jenis |
|---|-----------|-------|--------|-------|--------|
| 1 | 1 | 20 | M | Hitam | Koper |
| 2 | 2 | 15 | S | Merah | Ransel |
| 3 | 3 | 25 | L | Biru | Koper |
| 4 | 4 | 10 | S | Hijau | Ransel |

flapzzz Database: bandara_horizon Table: bandara Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

bandara_horizon.bandara: 4 rows total (exact)

>> Next

Show all

| # | ID_Bandara | Nama | Kota | Negara | Kode_IATA |
|---|------------|----------------|-----------|-----------|-----------|
| 1 | 1 | Soekarno-Hatta | Jakarta | Indonesia | CGK |
| 2 | 2 | Ngurah Rai | Denpasar | Indonesia | DPS |
| 3 | 3 | Changi | Singapore | Singapore | SIN |
| 4 | 4 | Haneda | Tokyo | Japan | HND |

flapzzz Database: bandara_horizon Table: bandara_penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

bandara_horizon.bandara_penerbangan: 4 rows total (exact)

>> Next

Show all

Sc

| # | Bandara_ID | Penerbangan_ID |
|---|------------|----------------|
| 1 | 1 | FL0001 |
| 2 | 2 | FL0002 |
| 3 | 3 | FL0003 |
| 4 | 4 | FL0004 |

flapzzz Database: bandara_horizon Table: maskapai Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

bandara_horizon.maskapai: 4 rows total (exact)

>> Next

Show al

| # | ID_Maskapai | Nama | Negara_Asal |
|---|-------------|--------------------|-------------|
| 1 | GA123 | Garuda Indonesia | Indonesia |
| 2 | JL789 | Japan Airlines | Japan |
| 3 | QZ987 | AirAsia | Malaysia |
| 4 | SQ456 | Singapore Airlines | Singapore |

flapzzz Database: bandara_horizon Table: penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

bandara_horizon.penerbangan: 4 rows total (exact)

>> Next

Show al

| # | ID_Penerbangan | Waktu_Keberangkatan | Waktu_Sampai | Status_Penerbangan | ID_Pesawat |
|---|----------------|---------------------|---------------------|--------------------|------------|
| 1 | FL0001 | 2024-12-15 10:00:00 | 2024-12-15 12:30:00 | Jadwal | PKABC1 |
| 2 | FL0002 | 2024-12-16 08:00:00 | 2024-12-16 10:45:00 | Jadwal | PKDEF2 |
| 3 | FL0003 | 2024-12-17 14:00:00 | 2024-12-17 16:30:00 | Ditunda | PKGHI3 |
| 4 | FL0004 | 2024-12-18 18:00:00 | 2024-12-18 20:30:00 | Jadwal | PKJKL4 |

bandara_horizon.penumpang: 4 rows total (exact)

>> Next

Show all

Sorting

Columns (8/8) Filter

| # | NIK | Nama | Tanggal_Lahir | Alamat | No_Telepon | Jenis_Kelamin | Kewarganegaraan | ID_Bagasi |
|---|------------------|--------------|---------------|-----------------------|---------------|---------------|-----------------|-----------|
| 1 | 3201123456789... | Budi Santoso | 1990-04-15 | Jl. Merdeka No.1 | 081234567890 | L | Indonesia | 1 |
| 2 | 3302134567890... | Siti Aminah | 1985-08-20 | Jl. Kebangsaan No.2 | 081298765432 | P | Indonesia | 2 |
| 3 | 3403145678901... | John Tanaka | 1992-12-05 | Shibuya, Tokyo | 080123456789 | L | Japan | 3 |
| 4 | 3504156789012... | Li Wei | 1995-03-10 | Orchard Rd, Singapore | 0658123456789 | L | Singapore | 4 |

| # | ID_Pesawat | Model | Kapasitas | Tahun_Produksi | Status_Pesawat | ID_Maskapai |
|---|------------|-------------|-----------|----------------|-----------------|-------------|
| 1 | PKABC1 | Boeing 737 | 180 | 2018 | Aktif | GA123 |
| 2 | PKDEF2 | Airbus A320 | 150 | 2020 | Aktif | SQ456 |
| 3 | PKGHI3 | Boeing | 250 | 2019 | Dalam Perawatan | JL789 |
| 4 | PKJKL4 | Airbus A330 | 280 | 2021 | Aktif | QZ987 |

| # | ID_Tiket | Nomor_Kursi | Harga | Waktu_Pembelian | Kelas_Penerbangan | NIK_Penumpang | ID_Penerbangan |
|---|----------|-------------|-----------|---------------------|-------------------|------------------|----------------|
| 1 | TIK001 | 12A | 1,200,000 | 2024-11-01 08:00:00 | Ekonomi | 3201123456789012 | FL0001 |
| 2 | TIK002 | 14B | 1,500,000 | 2024-11-02 09:30:00 | Bisnis | 3302134567890123 | FL0002 |
| 3 | TIK003 | 16C | 2,000,000 | 2024-11-03 10:15:00 | Ekonomi | 3403145678901234 | FL0003 |
| 4 | TIK004 | 18D | 1,000,000 | 2024-11-04 11:45:00 | Ekonomi | 3504156789012345 | FL0004 |

2. Penambahan Kolom

```
-- tambah kolom
ALTER TABLE Penumpang
ADD Email VARCHAR(200) NOT NULL;
```

flapzzz Database: bandara_horizon Table: penumpang Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

Basic Options Indexes (2) Foreign keys (1) Check constraints (2) Partitions

CREATE code ALTER code

+

 Add

✖

 Remove

✕

 Clear

▲

 Up

▼

 Down

Name

>

 PRIMARY KEY

>

 ID_Bagasi

Type / Length

PRIMARY KEY

Algorithm

BTREE BTREE

Comment

Columns:

+

 Add

✖

 Remove

▲

 Up

▼

 Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation | Ex |
|---|-----------------|----------|------------|----------|-------------|----------|------------|---------|--------------------|----|
| 1 | NIK | CHAR | 16 | | | | No default | | utf8mb4_general_ci | |
| 2 | Nama | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 3 | Tanggal_Lahir | DATE | | | | | No default | | | |
| 4 | Alamat | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 5 | No_Telepon | VARCHAR | 13 | | | | No default | | utf8mb4_general_ci | |
| 6 | Jenis_Kelamin | CHAR | 1 | | | | No default | | utf8mb4_general_ci | |
| 7 | Kewarganegar... | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 8 | ID_Bagasi | INT | 11 | | | | NULL | | | |

Help

Discard

Save

flapzzz Database: bandara_horizon Table: penumpang Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

Basic Options Indexes (2) Foreign keys (1) Check constraints (2) Partitions

CREATE code ALTER code

+

 Add

✖

 Remove

✕

 Clear

▲

 Up

▼

 Down

Name

>

 PRIMARY KEY

>

 ID_Bagasi

Type / Length

PRIMARY KEY

Algorithm

BTREE BTREE

Comment

Direction

Columns:

+

 Add

✖

 Remove

▲

 Up

▼

 Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation | Expression |
|---|-----------------|----------|------------|----------|-------------|----------|------------|---------|--------------------|------------|
| 1 | NIK | CHAR | 16 | | | | No default | | utf8mb4_general_ci | |
| 2 | Nama | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 3 | Tanggal_Lahir | DATE | | | | | No default | | | |
| 4 | Alamat | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 5 | No_Telepon | VARCHAR | 13 | | | | No default | | utf8mb4_general_ci | |
| 6 | Jenis_Kelamin | CHAR | 1 | | | | No default | | utf8mb4_general_ci | |
| 7 | Kewarganegar... | VARCHAR | 255 | | | | No default | | utf8mb4_general_ci | |
| 8 | ID_Bagasi | INT | 11 | | | | NULL | | | |
| 9 | Email | VARCHAR | 200 | | | | No default | | utf8mb4_general_ci | |

Help

Discard

Save

3. Pengubahan Tipe Data

```
-- ubah jenis data pada kolom  
ALTER TABLE Bagasi  
MODIFY Jenis VARCHAR(50) NOT NULL;
```

flapzzz Database: bandara_horizon Table: bagasi Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql

Basic Options **Indexes (1)** Foreign keys (0) Check constraints (0) Partitions CREATE code ALTER code

+ Add
✖ Remove
✗ Clear
▲ Up
▼ Down

| Name | Type / Length |
|---------------|---------------|
| > PRIMARY KEY | PRIMARY |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment |
|---|-----------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|
| 1 | ID_Bagasi | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 2 | Berat | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 3 | Ukuran | VARCHAR | 5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 4 | Warna | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 5 | Jenis | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |

Basic Options **Indexes (1)** Foreign keys (0) Check constraints (0) Partitions CREATE code ALTER code

+ Add
✖ Remove
✗ Clear
▲ Up
▼ Down

| Name | Type / Length | Algorithm | Comment |
|---------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|-----------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | ID_Bagasi | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Berat | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 3 | Ukuran | VARCHAR | 5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |
| 4 | Warna | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |
| 5 | Jenis | VARCHAR | 50 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

4. Penambahan Primary Key

```
-- multiple primary key
ALTER TABLE Bandara_Penerbangan
DROP FOREIGN KEY fk_bandara,
DROP FOREIGN KEY fk_penerbangan;

ALTER TABLE Bandara
DROP PRIMARY KEY;

ALTER TABLE Bandara
ADD PRIMARY KEY (ID_Bandara, Kode_IATA);

ALTER TABLE Bandara_Penerbangan
ADD CONSTRAINT fk_bandara FOREIGN KEY (Bandara_ID) REFERENCES Bandara(ID_Bandara) ON UPDATE CASCADE ON DELETE CASCADE,
ADD CONSTRAINT fk_penerbangan FOREIGN KEY (Penerbangan_ID) REFERENCES Penerbangan(ID_Penerbangan) ON UPDATE CASCADE ON DELETE CASCADE;
```

a. Hapus foreign key bandara_penerbangan

flapzzz Database: bandara_horizon Table: bandara_penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (2) Foreign keys (2) Check constraints (0) Partitions CREATE code ALTER code

+ Add
✖ Remove
✗ Clear
▲ Up
▼ Down

| Name | Type / Length | Algorithm | Comment |
|------------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |
| > fk_penerbangan | KEY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|----------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | Bandara_ID | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Penerbangan... | CHAR | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

flapzzz Database: bandara_horizon Table: bandara_penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (2) Foreign keys (0) Check constraints (0) Partitions CREATE code ALTER code

+ Add
✖ Remove
✗ Clear
▲ Up
▼ Down

| Name | Type / Length | Algorithm | Comment |
|------------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |
| > fk_penerbangan | KEY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|----------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | Bandara_ID | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Penerbangan... | CHAR | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

b. Hapus primary key bandara

flapzzz Database: bandara_horizon Table: bandara Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (1) Foreign keys (0) Check constraints (1) Partitions CREATE code ALTER code

+ Add
✖ Remove
✗ Clear
▲ Up
▼ Down

| Name | Type / Length | Algorithm | Comment |
|---------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | ID_Bandara | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Nama | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |
| 3 | Kota | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |
| 4 | Negara | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |
| 5 | Kode_IATA | CHAR | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

flapzzz Database: bandara_horizon Table: bandara Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (0) Foreign keys (0) Check constraints (1) Partitions CREATE code ALTER code

+ Add Name Type / Length
 x Remove
 X Clear
 ▲ Up
 ▼ Down

Columns: + Add x Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment |
|---|------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|
| 1 | ID_Bandara | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 2 | Nama | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 3 | Kota | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 4 | Negara | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 5 | Kode_IATA | CHAR | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |

c. Add multiple primary key bandara

flapzzz Database: bandara_horizon Table: bandara Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (0) Foreign keys (0) Check constraints (1) Partitions CREATE code ALTER code

+ Add Name Type / Length
 x Remove
 X Clear
 ▲ Up
 ▼ Down

Columns: + Add x Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment |
|---|------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|
| 1 | ID_Bandara | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 2 | Nama | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 3 | Kota | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 4 | Negara | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 5 | Kode_IATA | CHAR | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |

flapzzz Database: bandara_horizon Table: bandara Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (1) Foreign keys (0) Check constraints (1) Partitions CREATE code ALTER code

+ Add
 ✖ Remove
 ✕ Clear
 ▲ Up
 ▼ Down

| Name | Type / Length |
|---------------|---------------|
| > PRIMARY KEY | PRIMARY |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment |
|---|------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|
| 1 | ID_Bandara | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 2 | Nama | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 3 | Kota | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 4 | Negara | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |
| 5 | Kode_IATA | CHAR | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | |

d. Add foreign key bandara_penerbangan

flapzzz Database: bandara_horizon Table: bandara_penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (2) Foreign keys (0) Check constraints (0) Partitions CREATE code ALTER code

+ Add
 ✖ Remove
 ✕ Clear
 ▲ Up
 ▼ Down

| Name | Type / Length | Algorithm | Comment |
|------------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |
| > fk_penerbangan | KEY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|----------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | Bandara_ID | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Penerbangan... | CHAR | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

flapzzz Database: bandara_horizon Table: bandara_penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

Basic Options Indexes (2) Foreign keys (2) Check constraints (0) Partitions CREATE code ALTER code

+ Add
 ✖ Remove
 ✕ Clear
 ▲ Up
 ▼ Down

| Name | Type / Length | Algorithm | Comment |
|------------------|---------------|-----------|---------|
| > PRIMARY KEY | PRIMARY | BTREE | |
| > fk_penerbangan | KEY | BTREE | |

Columns: + Add ✖ Remove ▲ Up ▼ Down

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zerofill | Default | Comment | Collation |
|---|----------------|----------|------------|--------------------------|--------------------------|--------------------------|------------|---------|--------------------|
| 1 | Bandara_ID | INT | 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | |
| 2 | Penerbangan... | CHAR | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci |

5. Penghapusan Kolom

```
-- hapus kolom
```

```
ALTER TABLE Penumpang
```

```
DROP COLUMN Email;
```

The screenshot displays the 'Table: penumpang' structure in a database management tool. The table has the following columns:

| # | Name | Datatype | Length/Set | Unsigned | Allow NU... | Zero fill | Default | Comment | Collation | Expression |
|---|-----------------|----------|------------|--------------------------|-------------------------------------|--------------------------|------------|---------|--------------------|------------|
| 1 | NIK | CHAR | 16 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 2 | Nama | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 3 | Tanggal_Lahir | DATE | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | | |
| 4 | Alamat | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 5 | No_Telepon | VARCHAR | 13 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 6 | Jenis_Kelamin | CHAR | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 7 | Kewarganegar... | VARCHAR | 255 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |
| 8 | ID_Bagasi | INT | 11 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | NULL | | utf8mb4_general_ci | |
| 9 | Email | VARCHAR | 200 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No default | | utf8mb4_general_ci | |

The 'Email' column is highlighted, indicating it is the target for deletion. The tool also shows the primary key 'ID_Bagasi' and the collation 'utf8mb4_general_ci'.

DML

6. Perubahan jadwal flight FL0001

```
-- FL0001 perubahan jadwal
UPDATE Penerbangan
SET Waktu_Keberangkatan = '2024-11-01 11:00:00',
    Waktu_Sampai = '2024-11-01 13:30:00'
WHERE ID_Penerbangan = 'FL0001';
```

flapzzz Database: bandara_horizon Table: penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penerbangan: 4 rows total (exact) >> Next Show all

| # | ID_Penerbangan | Waktu_Keberangkatan | Waktu_Sampai | Status_Penerbangan | ID_Pesawat |
|---|----------------|---------------------|---------------------|--------------------|------------|
| 1 | FL0001 | 2024-12-15 10:00:00 | 2024-12-15 12:30:00 | Jadwal | PKABC1 |
| 2 | FL0002 | 2024-12-16 08:00:00 | 2024-12-16 10:45:00 | Jadwal | PKDEF2 |
| 3 | FL0003 | 2024-12-17 14:00:00 | 2024-12-17 16:30:00 | Ditunda | PKGHI3 |
| 4 | FL0004 | 2024-12-18 18:00:00 | 2024-12-18 20:30:00 | Jadwal | PKJKL4 |

flapzzz Database: bandara_horizon Table: penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penerbangan: 4 rows total (exact) >> Next Show all

| # | ID_Penerbangan | Waktu_Keberangkatan | Waktu_Sampai | Status_Penerbangan | ID_Pesawat |
|---|----------------|---------------------|---------------------|--------------------|------------|
| 1 | FL0001 | 2024-11-01 11:00:00 | 2024-11-01 13:30:00 | Jadwal | PKABC1 |
| 2 | FL0002 | 2024-12-16 08:00:00 | 2024-12-16 10:45:00 | Jadwal | PKDEF2 |
| 3 | FL0003 | 2024-12-17 14:00:00 | 2024-12-17 16:30:00 | Ditunda | PKGHI3 |
| 4 | FL0004 | 2024-12-18 18:00:00 | 2024-12-18 20:30:00 | Jadwal | PKJKL4 |

7. Perubahan no telp Siti Aminah

```
-- Siti Aminah dengan NIK xxxx perubahan no telp
UPDATE Penumpang
SET No_Telepon = '081223344556'
WHERE Nama = 'Siti Aminah' AND NIK = '3302134567890123';
```

flapzzz Database: bandara_horizon Table: penumpang Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penumpang: 4 rows total (exact) >> Next Show all Sorting Columns (8/8) Fil

| # | NIK | Nama | Tanggal_Lahir | Alamat | No_Telepon | Jenis_Kelamin | Kewarganegaraan | ID_Bagasi |
|---|------------------|--------------|---------------|-----------------------|---------------|---------------|-----------------|-----------|
| 1 | 3201123456789... | Budi Santoso | 1990-04-15 | Jl. Merdeka No.1 | 081234567890 | L | Indonesia | 1 |
| 2 | 3302134567890... | Siti Aminah | 1985-08-20 | Jl. Kebangsaan No.2 | 081298765432 | P | Indonesia | 2 |
| 3 | 3403145678901... | John Tanaka | 1992-12-05 | Shibuya, Tokyo | 080123456789 | L | Japan | 3 |
| 4 | 3504156789012... | Li Wei | 1995-03-10 | Orchard Rd, Singapore | 0658123456789 | L | Singapore | 4 |

flapzzz Database: bandara_horizon Table: penumpang Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penumpang: 4 rows total (exact) >> Next Show all Sorting Columns (8/8) Fil

| # | NIK | Nama | Tanggal_Lahir | Alamat | No_Telepon | Jenis_Kelamin | Kewarganegaraan | ID_Bagasi |
|---|------------------|--------------|---------------|-----------------------|---------------|---------------|-----------------|-----------|
| 1 | 3201123456789... | Budi Santoso | 1990-04-15 | Jl. Merdeka No.1 | 081234567890 | L | Indonesia | 1 |
| 2 | 3302134567890... | Siti Aminah | 1985-08-20 | Jl. Kebangsaan No.2 | 081223344556 | P | Indonesia | 2 |
| 3 | 3403145678901... | John Tanaka | 1992-12-05 | Shibuya, Tokyo | 080123456789 | L | Japan | 3 |
| 4 | 3504156789012... | Li Wei | 1995-03-10 | Orchard Rd, Singapore | 0658123456789 | L | Singapore | 4 |

8. Perubahan status pesawat PKGHI3

```
-- PKGHI3 perubahan status
UPDATE Pesawat
SET Status_Pesawat = 'Aktif'
WHERE ID_Pesawat = 'PKGHI3';
```

flapzzz Database: bandara_horizon Table: pesawat Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.pesawat: 4 rows total (exact)

| # | ID_Pesawat | Model | Kapasitas | Tahun_Produksi | Status_Pesawat | ID_Maskapai |
|---|------------|-------------|-----------|----------------|-----------------|-------------|
| 1 | PKABC1 | Boeing 737 | 180 | 2018 | Aktif | GA123 |
| 2 | PKDEF2 | Airbus A320 | 150 | 2020 | Aktif | SQ456 |
| 3 | PKGHI3 | Boeing | 250 | 2019 | Dalam Perawatan | JL789 |
| 4 | PKJKL4 | Airbus A330 | 280 | 2021 | Aktif | QZ987 |

flapzzz Database: bandara_horizon Table: pesawat Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.pesawat: 4 rows total (exact)

| # | ID_Pesawat | Model | Kapasitas | Tahun_Produksi | Status_Pesawat | ID_Maskapai |
|---|------------|-------------|-----------|----------------|----------------|-------------|
| 1 | PKABC1 | Boeing 737 | 180 | 2018 | Aktif | GA123 |
| 2 | PKDEF2 | Airbus A320 | 150 | 2020 | Aktif | SQ456 |
| 3 | PKGHI3 | Boeing | 250 | 2019 | Aktif | JL789 |
| 4 | PKJKL4 | Airbus A330 | 280 | 2021 | Aktif | QZ987 |

9. Perubahan cancel tiket Li Wei FL0004

```
-- Li Wei FL0004 pembatalan tiket
DELETE FROM Tiket
WHERE NIK_Penumpang = '3504156789012345' AND ID_Penerbangan = 'FL0004';
```

bandara_horizon.tiket: 4 rows total (exact)

| # | ID_Tiket | Nomor_Kursi | Harga | Waktu_Pembelian | Kelas_Penerbangan | NIK_Penumpang | ID_Penerbangan |
|---|----------|-------------|-----------|---------------------|-------------------|------------------|----------------|
| 1 | TIK001 | 12A | 1,200,000 | 2024-11-01 08:00:00 | Ekonomi | 3201123456789012 | FL0001 |
| 2 | TIK002 | 14B | 1,500,000 | 2024-11-02 09:30:00 | Bisnis | 3302134567890123 | FL0002 |
| 3 | TIK003 | 16C | 2,000,000 | 2024-11-03 10:15:00 | Ekonomi | 3403145678901234 | FL0003 |
| 4 | TIK004 | 18D | 1,000,000 | 2024-11-04 11:45:00 | Ekonomi | 3504156789012345 | FL0004 |

flapzzz Database: bandara_horizon Table: tiket Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.tiket: 3 rows total (exact)

| # | ID_Tiket | Nomor_Kursi | Harga | Waktu_Pembelian | Kelas_Penerbangan | NIK_Penumpang | ID_Penerbangan |
|---|----------|-------------|-----------|---------------------|-------------------|------------------|----------------|
| 1 | TIK001 | 12A | 1,200,000 | 2024-11-01 08:00:00 | Ekonomi | 3201123456789012 | FL0001 |
| 2 | TIK002 | 14B | 1,500,000 | 2024-11-02 09:30:00 | Bisnis | 3302134567890123 | FL0002 |
| 3 | TIK003 | 16C | 2,000,000 | 2024-11-03 10:15:00 | Ekonomi | 3403145678901234 | FL0003 |

10. Perubahan delete data bagasi id 2

```
-- ID bagasi 2 penghapusan data
DELETE FROM Bagasi
WHERE ID_Bagasi = 2 AND Berat = 15 AND Ukuran = 'S' AND Warna = 'Merah';
```

flapzzz Database: bandara_horizon Table: bagasi Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.bagasi: 4 rows total (exact) >> Next Show

| # | ID_Bagasi | Berat | Ukuran | Warna | Jenis |
|---|-----------|-------|--------|-------|--------|
| 1 | 1 | 20 | M | Hitam | Koper |
| 2 | 2 | 15 | S | Merah | Ransel |
| 3 | 3 | 25 | L | Biru | Koper |
| 4 | 4 | 10 | S | Hijau | Ransel |

flapzzz Database: bandara_horizon Table: bagasi Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.bagasi: 3 rows total (exact) >> Next Show all

| # | ID_Bagasi | Berat | Ukuran | Warna | Jenis |
|---|-----------|-------|--------|-------|--------|
| 1 | 1 | 20 | M | Hitam | Koper |
| 2 | 3 | 25 | L | Biru | Koper |
| 3 | 4 | 10 | S | Hijau | Ransel |

11. Perubahan delete data status ditunda

```
-- delay flight dibatalkan
DELETE FROM Penerbangan
WHERE Status_Penerbangan = 'Ditunda';
```

flapzzz Database: bandara_horizon Table: penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penerbangan: 4 rows total (exact) >> Next Show all

| # | ID_Penerbangan | Waktu_Keberangkatan | Waktu_Sampai | Status_Penerbangan | ID_Pesawat |
|---|----------------|---------------------|---------------------|--------------------|------------|
| 1 | FL0001 | 2024-11-01 11:00:00 | 2024-11-01 13:30:00 | Jadwal | PKABC1 |
| 2 | FL0002 | 2024-12-16 08:00:00 | 2024-12-16 10:45:00 | Jadwal | PKDEF2 |
| 3 | FL0003 | 2024-12-17 14:00:00 | 2024-12-17 16:30:00 | Ditunda | PKGHI3 |
| 4 | FL0004 | 2024-12-18 18:00:00 | 2024-12-18 20:30:00 | Jadwal | PKJKL4 |

flapzzz Database: bandara_horizon Table: penerbangan Data 5025241146_Yoseph Kevin H_Modul Pendahuluan 2.sql*

bandara_horizon.penerbangan: 3 rows total (exact) >> Next Show all

| # | ID_Penerbangan | Waktu_Keberangkatan | Waktu_Sampai | Status_Penerbangan | ID_Pesawat |
|---|----------------|---------------------|---------------------|--------------------|------------|
| 1 | FL0001 | 2024-11-01 11:00:00 | 2024-11-01 13:30:00 | Jadwal | PKABC1 |
| 2 | FL0002 | 2024-12-16 08:00:00 | 2024-12-16 10:45:00 | Jadwal | PKDEF2 |
| 3 | FL0004 | 2024-12-18 18:00:00 | 2024-12-18 20:30:00 | Jadwal | PKJKL4 |