

Capture Running Python.

1. bikeshare.py >> Load CSV dataset mentah ke Postgresql.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER
PS C:\Users\HP\bikeshare> & C:/Users/HP/AppData/Local/Programs/Python/Python312/python.exe c:/Users/HP/bike
share/bikeshare.py
Data dari regions.csv berhasil dimuat ke tabel regions
Data dari station_info.csv berhasil dimuat ke tabel station_info
Data dari regions.csv berhasil dimuat ke tabel regions
Data dari regions.csv berhasil dimuat ke tabel regions
Data dari station_info.csv berhasil dimuat ke tabel station_info
Data dari trips.csv berhasil dimuat ke tabel trips
Semua data berhasil dimuat ke PostgreSQL
```

2. bikeshareSkema.py >> proses ETL to star skema

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER
PS C:\Users\HP\bikeshare> & C:/Users/HP/AppData/Local/Programs/Python/Python312/python.exe c:/Users/HP/bikes
hareSkema.py
Data dari regions.csv berhasil dimuat dan diproses ke tabel regions
Data dari station_info.csv berhasil dimuat dan diproses ke tabel station_info
Data trips berhasil dimuat dan diproses ke tabel fact_trips dan dims_trips_info
fact_trips.csv dan dims_trips_info.csv berhasil disimpan
Semua data berhasil dimuat dan diproses ke PostgreSQL
Tabel dims_regions_station_info berhasil dibuat dan disimpan ke database.
dims_regions_station_info.csv berhasil disimpan
Perintah DROP TABLE berhasil dieksekusi.
Proses penghapusan tabel selesai.

Tabel-tabel yang tersedia di database setelah update:
- fact_trips
- dims_trips_info
- dims_regions_station_info

Proses update database selesai. Tabel trips, station_info, dan regions berhasil dihapus.

--- Informasi untuk tabel fact_trips ---
Daftar kolom:
['trip_id', 'duration_sec', 'start_date', 'start_station_id', 'end_date', 'end_station_id', 'start_station_latitude',
'start_station_longitude', 'end_station_latitude', 'end_station_longitude', 'start_station_geom', 'end_station_geom']

Sample isian row:
      trip_id duration_sec      start_date start_station_id      end_date end_station_id
start_station_latitude start_station_longitude end_station_latitude end_station_longitude      st
art_station_geom      end_station_geom
201711111447202880      272 2017-11-11 14:47:20+00:00      233 2017-11-11 14:51:53 UTC      222
      37.795812      -122.255555      37.792714      -122.24878      POINT(-122.255
5549 37.7958125) POINT(-122.2487796 37.7927143)
201711181823281960      353 2017-11-18 18:23:28+00:00      200 2017-11-18 18:29:22 UTC      222
      37.800214      -122.253810      37.792714      -122.24878 POINT(-122.253810167313 3
```

```
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201711181823281960 353 2017-11-18 18:23:28+00:00 200 2017-11-18 18:29:22 UTC 222
37.800214 -122.253810 37.792714 -122.24878 POINT(-122.253810167313 3
7.8002135669698) POINT(-122.2487796 37.7927143)
201804031521401409 1577 2018-04-03 15:21:40+00:00 181 2018-04-03 15:47:58 UTC 222
37.811377 -122.265192 37.792714 -122.24878 POINT(-122.265
1925 37.8113768) POINT(-122.2487796 37.7927143)

--- Informasi untuk tabel dims_trips_info ---
Daftar kolom:
['trip_id', 'bike_number', 'subscriber_type', 'member_birth_year', 'member_gender']
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['trip_id', 'bike_number', 'subscriber_type', 'member_birth_year', 'member_gender']
Daftar kolom:
Daftar kolom:
['trip_id', 'bike_number', 'subscriber_type', 'member_birth_year', 'member_gender']

Sample isian row:
trip_id bike_number subscriber_type member_birth_year member_gender
Daftar kolom:
['trip_id', 'bike_number', 'subscriber_type', 'member_birth_year', 'member_gender']

Sample isian row:

Sample isian row:
trip_id bike_number subscriber_type member_birth_year member_gender
Sample isian row:
trip_id bike_number subscriber_type member_birth_year member_gender
trip_id bike_number subscriber_type member_birth_year member_gender
201711111447202880 2880 Subscriber 1965.0 Female
201711181823281960 1960 Subscriber 1988.0 Male
201711111447202880 2880 Subscriber 1965.0 Female
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER

201711181823281960 1960 Subscriber 1988.0 Male
201711111447202880 2880 Subscriber 1965.0 Female
201711181823281960 1960 Subscriber 1988.0 Male
201711181823281960 1960 Subscriber 1988.0 Male
201804031521401409 1409 Subscriber 1966.0 Male

201804031521401409 1409 Subscriber 1966.0 Male

--- Informasi untuk tabel dims_regions_station_info ---
--- Informasi untuk tabel dims_regions_station_info ---
Daftar kolom:
['station_id', 'station_name', 'short_name', 'region_id', 'region_name', 'capacity', 'has_kiosk', 'station_geom', 'lat', 'lon']
Sample isian row:
station_id station_name short_name region_id region_name capacity has_kiosk station_geom lat lon
412 Glen Park BART Station SF-W19 3.0 San Francisco 40 True POINT(-122.434140444 37.73
2812801) 37.732813 -122.434140
386 24th St at Bartlett St SF-Q23-3 3.0 San Francisco 16 True POINT(-122.41972357 37.75
2104984) 37.752105 -122.419724
499 Otis St at Brady St SF-K23 3.0 San Francisco 22 True POINT(-122.419976 37
.772219) 37.772219 -122.419976

Proses verifikasi tabel selesai.
PS C:\Users\HP\bikeshare>
```

3. bikeshareMatrix.py >> proses skema to matrix

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER

```
PS C:\Users\HP\bikeshare> & C:/Users/HP/AppData/Local/Programs/Python/Python312/python.exe c:/Users/HP/bike
share/bikeshareMatrix.py
```

Query 1 Results:

```
['regional_name', 'year', 'total_trips']
regional_name year total_trips
Berkeley 2017.0 14530
Berkeley 2018.0 26089
Emeryville 2017.0 3573
```

Query 2 Results:

```
['region', 'year', 'average_duration_minutes', 'member_type']
region year average_duration_minutes member_type
San Jose 2017.0 48.40 Customer
San Jose 2018.0 40.36 Customer
San Jose 2017.0 10.76 Subscriber
```

Query 3 Results:

```
['start_station_name', 'start_region', 'end_station_name', 'end_region', 'total_trips']
start_station_name start_region end_stat
ion_name end_region total_trips
San Francisco Ferry Building (Harry Bridges Plaza) San Francisco The Embarcadero at Sa
nsome St San Francisco 5543
The Embarcadero at Sansome St San Francisco Market St at St
euart St San Francisco 3117
Berry St at 4th St San Francisco San Francisco Ferry Building (Harry Bridge
s Plaza) San Francisco 3034
```

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Query 4 Results:

```
['region_name', 'utilization_status', 'total_stations', 'total_trips', 'total_capacity', 'avg_trips_per_bike_per_week', 'percentag
e_of_stations']
region_name utilization_status total_stations total_trips total_capacity avg_trips_per_bike_per_week percentage_of_stations
Berkeley Underutilized 15 2430.0 284.0 2.0 41.0
Berkeley Ideal 13 11717.0 256.0 11.0 35.0
Berkeley Overutilized 9 26472.0 208.0 29.0 24.0
```

Query 5 Results:

```
['region', 'year', 'total_trips', 'male_trips', 'female_trips', 'age_group']
region year total_trips male_trips female_trips age_group
San Jose 2017.0 6127 4945 1182 Middle-aged Adults
San Jose 2018.0 5402 4286 1116 Middle-aged Adults
San Jose 2017.0 488 317 171 Senior Adults
```

Query 6 Results:

```
['region_name', 'year', 'day_of_week', 'hour_of_day', 'total_trips']
region_name year day_of_week hour_of_day total_trips
Berkeley 2017.0 Thursday 1.0 272
Berkeley 2018.0 Wednesday 1.0 491
Emeryville 2017.0 Thursday 0.0 73
```

```
Loaded 10 rows and 3 columns to my-project-anggita.bikeshare.matrix-1
Loaded 20 rows and 4 columns to my-project-anggita.bikeshare.matrix-2
Loaded 10 rows and 5 columns to my-project-anggita.bikeshare.matrix-3
Loaded 15 rows and 7 columns to my-project-anggita.bikeshare.matrix-4
Loaded 30 rows and 6 columns to my-project-anggita.bikeshare.matrix-5
Loaded 10 rows and 5 columns to my-project-anggita.bikeshare.matrix-6
PS C:\Users\HP\bikeshare> []
```