

LAPORAN PRAKTIKUM
DATA WAREHOUSING DAN DATA MINING
MODUL 4
TABEL FAKTA



Disusun oleh:

Bima Triadmaja

L200210137

PROGRAM STUDI INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA
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4.5 Tugas

Buatlah tabel dimensi serta tabel fakta berdasarkan data excel serta star schema pada modul!

Dimensi Waktu

- Tampilan Pentaho

The screenshot shows the Pentaho Spoon interface with a transformation job named 'Dimensi Waktu'. The job flow is as follows:

- data_asal** (Input) connects to **Stream lookup**.
- data_fakta** (Input) connects to **Stream lookup 2**.
- Stream lookup** connects to **sk_waktu**.
- Stream lookup 2** connects to **sk_waktu**.
- sk_waktu** connects to **Select values**.
- Select values** connects to **dimensi waktu** (Output).

The **Execution Results** pane shows the following log entries:

```
2023/10/13 19:39:35 - data_asal.U - finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 19:39:35 - data_fakta.2.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 19:39:35 - Stream lookup.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
2023/10/13 19:39:35 - Stream lookup.2.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
2023/10/13 19:39:35 - sk_waktu.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:39:35 - Select values.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:39:35 - dimensi waktu.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:39:35 - Spoon - The transformation has finished!!
```

- Tampilan Database

The screenshot shows the phpMyAdmin interface for the 'tugas4' database. The 'dim_waktu' table is selected, and the 'Structure' tab is active. The table structure is as follows:

sk_waktu	waktu	bulan	tahun
1	2011-12-28 00:00:00	12	2011
2	2012-09-18 00:00:00	1	2012
3	2012-09-18 00:00:00	4	2012
4	2012-09-18 00:00:00	4	2011
5	2012-09-18 00:00:00	9	2012
6	2012-09-18 00:00:00	5	2012
7	2012-09-18 00:00:00	12	2011
8	2012-09-18 00:00:00	10	2011
9	2012-12-15 00:00:00	1	2011
10	2012-12-15 00:00:00	2	2012

Dimensi Pelanggan

- Tampilan Pentaho

The screenshot shows the Apache Pentaho Spoon interface. The job 'Dimensi Pelanggan' is configured with the following steps:

- data_asal** and **data_fakta** are connected to a **Stream lookup** step.
- The **Stream lookup** step is connected to the **sk_pelanggan** step.
- The **sk_pelanggan** step is connected to the **Select values dimensi pelanggan** step.

The **Execution Results** pane shows the following log:

```
2023/10/13 19:56:09 - data_asal.0 - rmisnea reading query, closing connection.
2023/10/13 19:56:09 - data_fakta.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 19:56:09 - data_asal.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 19:56:09 - Stream lookup.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
2023/10/13 19:56:09 - sk_pelanggan.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:56:09 - Select values.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:56:09 - dimensi pelanggan.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 19:56:09 - Spoon - The transformation has finished!!
```

- Tampilan Database

The screenshot shows the phpMyAdmin interface. The table 'dim_pelanggan' is selected, and the following data is displayed:

sk_pelanggan	nama_pelanggan	kode_gender
1	Ibu Siti Arya	WANITA
2	Ibu Tyas	WANITA
3	Ibu Tyas	WANITA
4	Ibu Siti Arya	WANITA
5	Ibu Siti Arya	WANITA
6	Ibu Hatamah	WANITA
7	Ibu Tyas	WANITA
8	Ibu Hatamah	WANITA
9	Bapak Ketut	PRIA
10	Ibu Hatamah	WANITA

Dimensi Wilayah

- Tampilan Pentaho

The screenshot shows the Pentaho Spoon interface with a data transformation job named 'Dimensi_Wilayah'. The job is composed of several steps: 'data_asal', 'data_fakta', 'Stream lookup', 'sk_wilayah', 'Select values', and 'dimensi wilayah'. The 'Execution Results' pane at the bottom shows the job's execution history, including the start and end times for each step and the overall job completion status.

Execution Results

- 2023/10/13 19:59:48 - data_asal.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - data_fakta.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - Stream lookup.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - sk_wilayah.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - Select values.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - dimensi wilayah.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
- 2023/10/13 19:59:48 - Spoon - The transformation has finished!!

- Tampilan Database

The screenshot shows the phpMyAdmin interface with the 'dim_wilayah' table selected in the 'tugas4' database. The table structure is displayed, showing two columns: 'sk_wilayah' and 'nama_wilayah'. The table contains 20 rows of data, with the first 19 rows visible in the screenshot. The data includes various Indonesian provinces and regions.

sk_wilayah	nama_wilayah
1	Bali
2	Jawa Timur
3	Jawa Timur
4	Jawa Timur
5	Jawa Timur
6	Jawa Timur
7	Jawa Timur
8	Jawa Timur
9	Jawa Barat
10	Jawa Barat

Dimensi Produk

- Tampilan Pentaho

The screenshot shows the Apache Pentaho Data Integration (Spoon) interface. The main window displays a transformation named 'Dimensi Produk'. The transformation flow is as follows: 'data_asal' (a file icon) and 'data_fakta' (a file icon) are connected to a 'Stream lookup' step. The 'Stream lookup' step is connected to 'sk_produk' (a table icon). 'sk_produk' is connected to 'Select values' (a table icon). Finally, 'Select values' is connected to 'dimensi_produk' (a table icon). The 'Execution Results' pane at the bottom shows the following log:

```
2023/10/13 20:08:55 - data_asal.0 - Finished reading query, closing connection.
2023/10/13 20:08:55 - data_fakta.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 20:08:55 - data_asal.0 - Finished processing (I=20, O=0, R=0, W=20, U=0, E=0)
2023/10/13 20:08:55 - Stream lookup.0 - Finished processing (I=0, O=0, R=0, W=20, U=0, E=0)
2023/10/13 20:08:55 - sk_produk.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 20:08:55 - Select values.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 20:08:56 - dimensi_produk.0 - Finished processing (I=0, O=20, R=20, W=20, U=0, E=0)
2023/10/13 20:08:56 - Spoon - The transformation has finished!!
```

- Tampilan Database

The screenshot shows the phpMyAdmin interface. The left sidebar shows the database structure, including 'tugas4' and its tables: 'data_asal', 'data_fakta', and 'uas'. The main window displays the 'dim_produk' table. The table structure is as follows:

sk_produk	nama_produk	kode_pola	harga
1	Jam Standar Print Lukis	Print	55000
2	Hem Sutra Print Rama	Print	500000
3	Hem Sutra Print Rama	Print	100000
4	Jam Standar Print Lukis	Print	60000
5	Jam Standar Print Lukis	Print	120000
6	Sarimbit Stadar Print Lukis	Print	70000
7	Hem Sutra Print Rama	Print	550000
8	Sarimbit Stadar Print Lukis	Print	150000
9	Jarik Standar Print Sogan	Print	225000

Tabel Fakta

- Tampilan Pentaho

The screenshot shows the Pentaho Spoon interface with a data transformation job named 'Tabel Fakta'. The job is configured with the following steps:

- Table data asal
- sk_waktu
- sk_produk
- sk_pelanggan
- sk_wilayah
- Select values
- Tabel Fakta

The 'Execution Results' tab is selected, showing the following log:

```
2023/10/13 20:15:58 - dim_wilayah.0 - finished processing (I=0, O=0, R=0, W=20, U=0, E=0)
2023/10/13 20:15:58 - sk_produk.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
2023/10/13 20:15:58 - sk_pelanggan.0 - Finished processing (I=0, O=0, R=40, W=20, U=0, E=0)
2023/10/13 20:15:58 - sk_wilayah.0 - Finished processing (I=0, O=0, R=60, W=20, U=0, E=0)
2023/10/13 20:15:58 - Select values.0 - Finished processing (I=0, O=0, R=20, W=20, U=0, E=0)
2023/10/13 20:15:58 - Tabel Fakta.0 - Finished processing (I=0, O=20, R=20, W=20, U=0, E=0)
2023/10/13 20:15:58 - Spoon - The transformation has finished!!
```

- Tampilan Database

The screenshot shows the phpMyAdmin interface for the 'tugas4' database. The 'tabel_fakta' table is selected, and the 'SQL' tab is active. The table structure is as follows:

sk_waktu	sk_produk	sk_pelanggan	sk_wilayah	jumlah
17	20	9	1	2
18	11	20	8	14
18	15	20	8	4
17	6	20	8	3
18	18	9	8	1
18	16	9	8	3
17	20	20	8	1
17	18	20	8	1
17	4	9	14	1

- Data Asal

Showing rows 0 - 19 (20 total, Query took 0.0003 seconds.)

```
SELECT * FROM `data_asal`
```

Number of rows: 25 Filter rows: Search this table

waktu	nama_barang	harga	jumlah	pembeli	nama_wilayah
2010-03-26	Celana Standar Print Lasem	55000	17	Ibu Hadi Sukarni	Jawa Barat
2010-06-14	Bahan Beludru Cap Mahkota	500000	1	Ibu Tyas	Jawa Tengah
2010-11-21	Hem Sutra Print Rama	100000	5	Ibu Tyas	Jawa Tengah
2011-01-05	Kaos Katun Print Bola	60000	1	Bapak Imron	Jawa Barat
2011-03-27	Bahan Standar Cap Lasem	120000	8	Ibu Siti Arya	Jawa Barat
2011-04-09	Hem Katun Print Kawung	70000	3	Ibu Harini	Jawa Timur
2011-08-19	Hem Standar Tulis Madura	550000	5	Ibu Atik	Jawa Tengah
2011-10-13	Sarimbit Stadar Print Lukis	150000	1	Ibu Hatamah	Jawa Timur
2011-12-28	Jarik Standar Print Sogan	225000	2	Bapak Ketut	Bali
	Bahan Standar Cap Sidermukti	225000	1	Ibu Hatamah	Jawa Timur

- Data Fakta

Showing rows 0 - 19 (20 total, Query took 0.0002 seconds.)

```
SELECT * FROM `data_fakta`
```

Number of rows: 25 Filter rows: Search this table

bulan	kuartal	tahun	nama_produk	nama_kategori	nama_subkategori	kode_pola	nama_pelanggan	kode_gender	nama_wilayah	jumlah
12	4	2011	Jarik Standar Print Sogan	Standar	Janrik	Print	Bapak Ketut	PRIA	Bali	2 2
1	1	2012	Kaos Batik Cap Lukis	Batik	Kaos	Cap	Ibu Harini	WANITA	Jawa Timur	14 3
4	2	2012	Jarik Standar Tulis Sarimbit	Standar	Janrik	Tulis	Ibu Harini	WANITA	Jawa Timur	4 4
4	2	2011	Hem Katun Print Kawung	Katun	Hem	Print	Ibu Harini	WANITA	Jawa Timur	3 7
9	3	2012	Batik Standar Cap Tumpal	Standar	Batik	Cap	Bapak Heru	PRIA	Jawa Timur	1 15