Rafif Tri Hartanto

SIB 2A

26

Jobsheet 3 Data Warehouse

Tugas 1

Proses objek:

1. Generate rows
   SS data input:

#	CurrentDate
1	01-01-2003
2	01-01-2003
3	01-01-2003
4	01-01-2003
5	01-01-2003
6	01-01-2003

   SS data output:

#	CurrentDate
1	01-01-2003
2	01-01-2003
3	01-01-2003
4	01-01-2003
5	01-01-2003
6	01-01-2003

   Keterangan: Generate rows membuat baris untuk field CurrentDate

2. Add sequences
   SS data input:

#	CurrentDate
1	01-01-2003
2	01-01-2003
3	01-01-2003
4	01-01-2003
5	01-01-2003
6	01-01-2003

SS data output:

#	CurrentDate	incrementDay
1	01-01-2003	0
2	01-01-2003	1
3	01-01-2003	2
4	01-01-2003	3
5	01-01-2003	4
6	01-01-2003	5

Keterangan: Add sequences menambahkan urutan ke aliran. Urutan adalah nilai integer yang selalu berubah dengan nilai awal dan kenaikan tertentu

3. Calculator

SS data input:

#	CurrentDate	incrementDay
1	01-01-2003	0
2	01-01-2003	1
3	01-01-2003	2
4	01-01-2003	3
5	01-01-2003	4
6	01-01-2003	5

SS data output:

#	CurrentDate	incrementDay	streamDate	streamYear	streamMonth	streamDay
1	01-01-2003	0	2003/01/01 00:00:00.000	2003	1	1
2	01-01-2003	1	2003/01/02 00:00:00.000	2003	1	2
3	01-01-2003	2	2003/01/03 00:00:00.000	2003	1	3
4	01-01-2003	3	2003/01/04 00:00:00.000	2003	1	4
5	01-01-2003	4	2003/01/05 00:00:00.000	2003	1	5
6	01-01-2003	5	2003/01/06 00:00:00.000	2003	1	6

Keterangan: Kalkulator menyediakan fungsi-fungsi yang telah ditetapkan sebelumnya yang dapat dijalankan pada nilai-nilai bidang input.

4. Select values

SS data input:

#	CurrentDate	incrementDay	streamDate	streamYear	streamMonth	streamDay
1	01-01-2003	0	2003/01/01 00:00:00.000	2003	1	1
2	01-01-2003	1	2003/01/02 00:00:00.000	2003	1	2
3	01-01-2003	2	2003/01/03 00:00:00.000	2003	1	3
4	01-01-2003	3	2003/01/04 00:00:00.000	2003	1	4
5	01-01-2003	4	2003/01/05 00:00:00.000	2003	1	5
6	01-01-2003	5	2003/01/06 00:00:00.000	2003	1	6

SS data output:

#	streamDate	streamYear	streamMonth	streamDay
1	2003/01/01 00:00:00.000	2003	1	1
2	2003/01/02 00:00:00.000	2003	1	2
3	2003/01/03 00:00:00.000	2003	1	3
4	2003/01/04 00:00:00.000	2003	1	4
5	2003/01/05 00:00:00.000	2003	1	5
6	2003/01/06 00:00:00.000	2003	1	6

Keterangan: Select values menghilangkan field CurrentDate dan incrementDay

5. Database lookup
   SS data input:

#	streamDate	streamYear	streamMonth	streamDay
1	2003/01/01 00:00:00.000	2003	1	1
2	2003/01/02 00:00:00.000	2003	1	2
3	2003/01/03 00:00:00.000	2003	1	3
4	2003/01/04 00:00:00.000	2003	1	4
5	2003/01/05 00:00:00.000	2003	1	5
6	2003/01/06 00:00:00.000	2003	1	6

   SS data output:

#	streamDate	streamYear	streamMonth	streamDay	date_value	year	month	day
1	2003/01/01 00:00:00.000	2003	1	1	2003/01/01 00:00:00.000	2003	1	1
2	2003/01/02 00:00:00.000	2003	1	2	2003/01/02 00:00:00.000	2003	1	2
3	2003/01/03 00:00:00.000	2003	1	3	2003/01/03 00:00:00.000	2003	1	3
4	2003/01/04 00:00:00.000	2003	1	4	2003/01/04 00:00:00.000	2003	1	4
5	2003/01/05 00:00:00.000	2003	1	5	2003/01/05 00:00:00.000	2003	1	5
6	2003/01/06 00:00:00.000	2003	1	6	2003/01/06 00:00:00.000	2003	1	6

   Keterangan: Database lookup memungkinkan untuk mencari nilai dalam tabel basis data. Nilai pencarian ditambahkan sebagai kolom baru ke dalam aliran (date, year, month, day).

6. Filter rows
   SS data input:

#	streamDate	streamYear	streamMonth	streamDay	date_value	year	month	day
1	2003/01/01 00:00:00.000	2003	1	1	2003/01/01 00:00:00.000	2003	1	1
2	2003/01/02 00:00:00.000	2003	1	2	2003/01/02 00:00:00.000	2003	1	2
3	2003/01/03 00:00:00.000	2003	1	3	2003/01/03 00:00:00.000	2003	1	3
4	2003/01/04 00:00:00.000	2003	1	4	2003/01/04 00:00:00.000	2003	1	4
5	2003/01/05 00:00:00.000	2003	1	5	2003/01/05 00:00:00.000	2003	1	5
6	2003/01/06 00:00:00.000	2003	1	6	2003/01/06 00:00:00.000	2003	1	6

   SS data output:

#	streamDate	streamYear	streamMonth	streamDay	date_value	year	month	day
1								

Keterangan: Filter rows memungkinkan untuk memfilter baris berdasarkan kondisi dan perbandingan. Setelah langkah ini terhubung ke langkah sebelumnya (satu atau lebih dan menerima input), dapat mengklik area "<field>", "=" dan "<value>" untuk membuat kondisi.

7. Table output

SS data input:

#	streamDate	streamYear	streamMonth	streamDay	date_value	year	month	day
1								

SS data output:

#	streamDate	streamYear	streamMonth	streamDay	date_value	year	month	day
1								

Keterangan: Tabel output memungkinkan untuk memuat data ke dalam tabel basis data. Output Tabel setara dengan operator DML INSERT.

Tugas 2

1.

- Table input

SS data input:

Execution Results

Logging | Execution History | Step Metrics | Performance Graph | Metrics | Preview data

First rows | Last rows | Off

#	employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle	employeeNumber_1
1	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com	1	<null>	President	<null>
2	1056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com	1	1002	VP Sales	1002
3	1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com	1	1002	VP Marketing	1002
4	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)	1056
5	1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)	1056
6	1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)	1056
7	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep	1143
8	1166	Thompson	Leslie	x4065	lthompson@classicmodelcars.com	1	1143	Sales Rep	1143
9	1188	Firrelli	Julie	x2173	jfirrelli@classicmodelcars.com	2	1143	Sales Rep	1143
10	1216	Patterson	Steve	x4334	spatterson@classicmodelcars.com	2	1143	Sales Rep	1143
11	1286	Tseng	Foon Yue	x2248	ftseng@classicmodelcars.com	3	1143	Sales Rep	1143
12	1323	Vanauf	George	x4102	gvanauf@classicmodelcars.com	3	1143	Sales Rep	1143
13	1337	Bondur	Loui	x6493	lbondur@classicmodelcars.com	4	1102	Sales Rep	1102
14	1370	Hernandez	Gerard	x2028	ghernande@classicmodelcars.com	4	1102	Sales Rep	1102
15	1401	Castillo	Pamela	x2759	pcastillo@classicmodelcars.com	4	1102	Sales Rep	1102

SS data output:

First rows | Last rows | Off

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss
1	1002	Murphy	Diane	President	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony
11	1286	Tseng	Foon Yue	Sales Rep	Bow	Anthony
12	1323	Vanauf	George	Sales Rep	Bow	Anthony
13	1337	Bondur	Loui	Sales Rep	Bondur	Gerard
14	1370	Hernandez	Gerard	Sales Rep	Bondur	Gerard
15	1401	Castillo	Pamela	Sales Rep	Bondur	Gerard
16	1501	Bott	Larry	Sales Rep	Bondur	Gerard

Keterangan: table input menarik data employee dari database oltp

- Select values

  SS data input:

First rows Last rows Off

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss
1	1002	Murphy	Diane	President	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony
11	1286	Tseng	Foon Yue	Sales Rep	Bow	Anthony
12	1323	Vanauf	George	Sales Rep	Bow	Anthony
13	1337	Bondur	Loui	Sales Rep	Bondur	Gerard
14	1370	Hernandez	Gerard	Sales Rep	Bondur	Gerard
15	1401	Castillo	Pamela	Sales Rep	Bondur	Gerard
16	1501	Bott	Larry	Sales Rep	Bondur	Gerard

  SS data output:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>

  Keterangan: select values merubah nama kolom employee dan menghapus kolom yang tidak perlu

- Database lookup

  SS data input:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>

  SS data output:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony	<null>	<null>

  Keterangan: database lookup menarik kolom dari dimeployee. Jika ada data yang tidak sama maka outputnya null

- Filter rows

  SS data input:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony	<null>	<null>

  SS data output:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony	<null>	<null>

  Keterangan: filter row memberikan kondisi null ke semua kolom di kolom dimemployee

- Table output

  SS data input:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstName
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony	<null>	<null>

  SS data output:

#	StreamEmployeenumber	StreamLastname	StreamFirstname	StreamJobtitle	StreamLastnameBoss	StreamFirstnameBoss	employeeNumber	firstNam
1	1002	Murphy	Diane	President	<null>	<null>	<null>	<null>
2	1056	Patterson	Mary	VP Sales	Murphy	Diane	<null>	<null>
3	1076	Firrelli	Jeff	VP Marketing	Murphy	Diane	<null>	<null>
4	1088	Patterson	William	Sales Manager (APAC)	Patterson	Mary	<null>	<null>
5	1102	Bondur	Gerard	Sale Manager (EMEA)	Patterson	Mary	<null>	<null>
6	1143	Bow	Anthony	Sales Manager (NA)	Patterson	Mary	<null>	<null>
7	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
8	1166	Thompson	Leslie	Sales Rep	Bow	Anthony	<null>	<null>
9	1188	Firrelli	Julie	Sales Rep	Bow	Anthony	<null>	<null>
10	1216	Patterson	Steve	Sales Rep	Bow	Anthony	<null>	<null>

  Keterangan: Table output menggunakan connection conn_dw_destination untuk memasukkan data pada tabel dimemployee

2. Tidak ada redudansi data
3. Tidak ada perubahan pada table dimemployee

Tugas 3

Proses objek

1. Table input
   SS data input:

#	employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
4	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
5	1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)
6	1105	Hartanto	Rafif Tri	x5501	rhartanto@classicmodelcars.com	4	1056	Sales Manager (APAC)
7	1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
8	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
9	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
10	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep

   SS data output:

#	employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
4	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
5	1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)
6	1105	Hartanto	Rafif Tri	x5501	rhartanto@classicmodelcars.com	4	1056	Sales Manager (APAC)
7	1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
8	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
9	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
10	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep

   Keterangan: menarik data transaksi dari OLTP

2. Select values
   SS data input:

#	employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
4	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
5	1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)
6	1105	Hartanto	Rafif Tri	x5501	rhartanto@classicmodelcars.com	4	1056	Sales Manager (APAC)
7	1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
8	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
9	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
10	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep

   SS data output:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

   Keterangan: memilih kolom employee number, lastname, firstname, paymentdate, amount, dan jobtitle

3. Database lookup 1
   SS data input:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

SS data output:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000

Keterangan: digunakan untuk mencocokkan data pada table dimEmployee untuk mengambil id_dimEmployee

4. Database lookup 2
   SS data input:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000

   SS data output:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000

   Keterangan: digunakan untuk mencocokkan data pada tabel dimDate untuk mengambil id_dimDate

5. Database lookup 3
   SS data input:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000

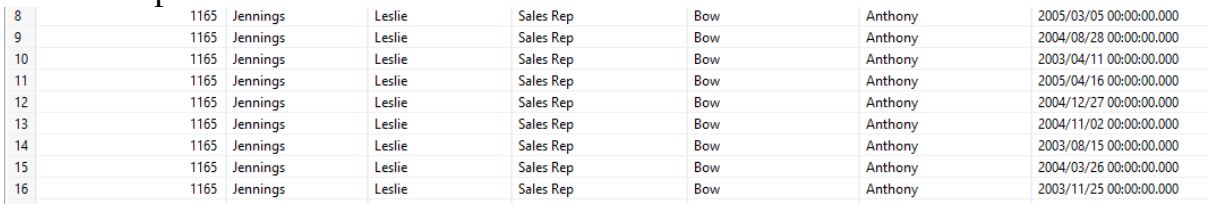
   SS data output:

8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

   Keterangan: digunakan untuk mencocokkan data pada tabel factomset untuk melihat data yang sama atau tidak

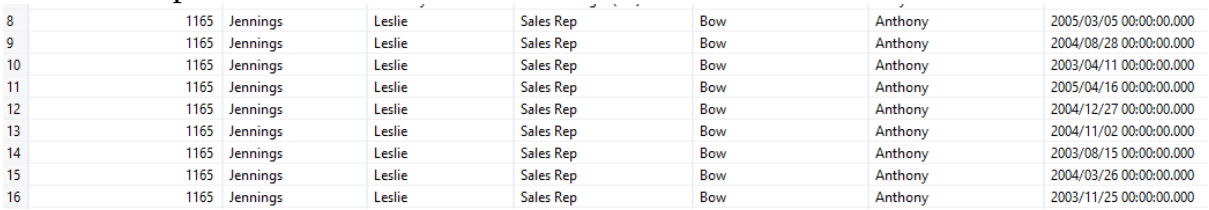
6. Filter rows

SS data input:



8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

SS data output:

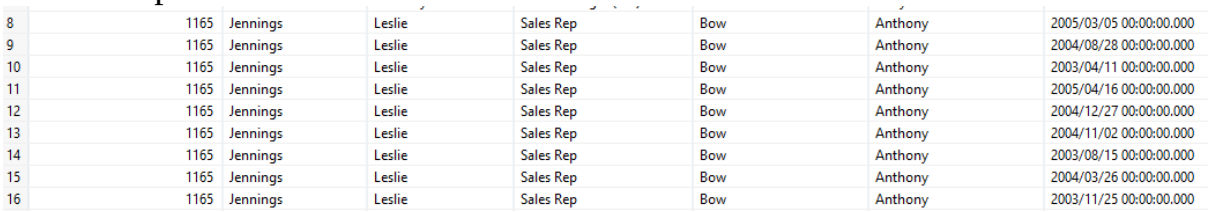


8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

Keterangan: digunakan untuk memiih data yang sudah ada pada tabel factomset tidak dimasukkan lagi

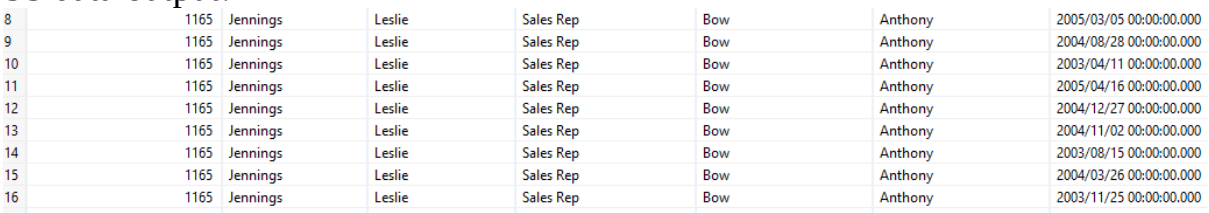
7. Table output

SS data input:



8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

SS data output:

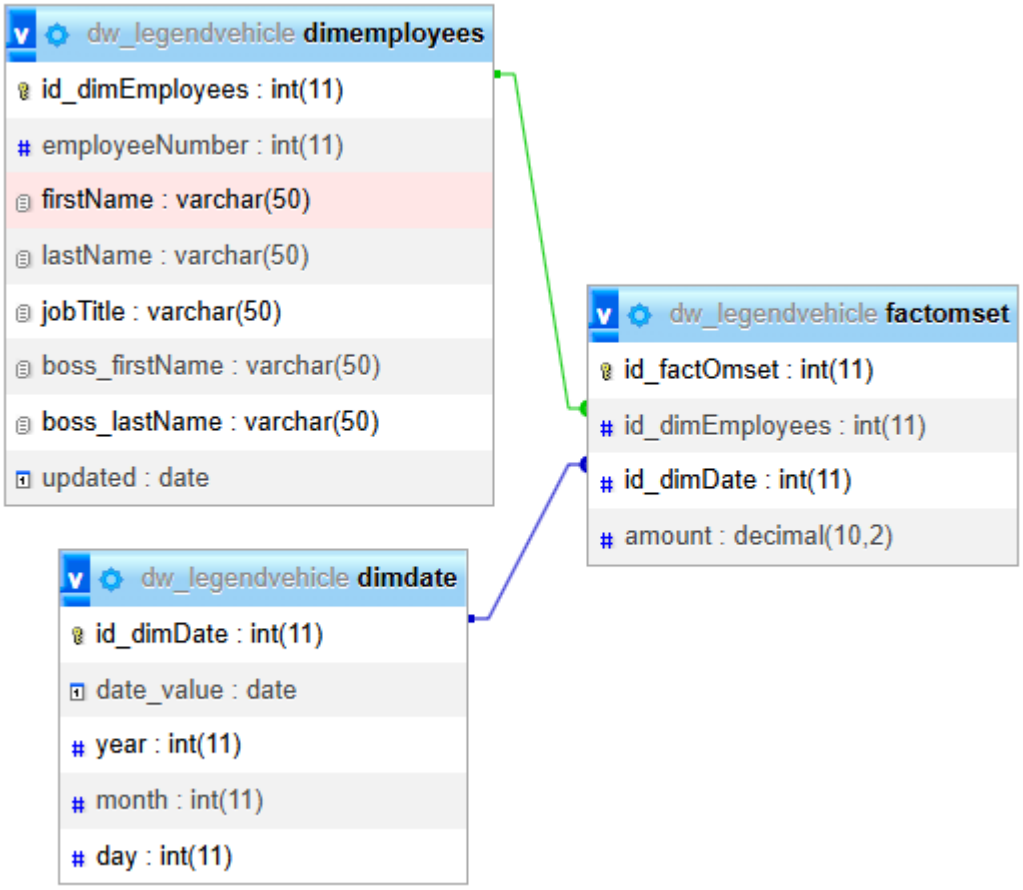


8	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/03/05 00:00:00.000
9	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/08/28 00:00:00.000
10	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/04/11 00:00:00.000
11	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2005/04/16 00:00:00.000
12	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/12/27 00:00:00.000
13	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/11/02 00:00:00.000
14	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/08/15 00:00:00.000
15	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2004/03/26 00:00:00.000
16	1165	Jennings	Leslie	Sales Rep	Bow	Anthony	2003/11/25 00:00:00.000

Keterangan: digunakan untuk memasukkan data pada tabel factOmset

Tugas 4

1.



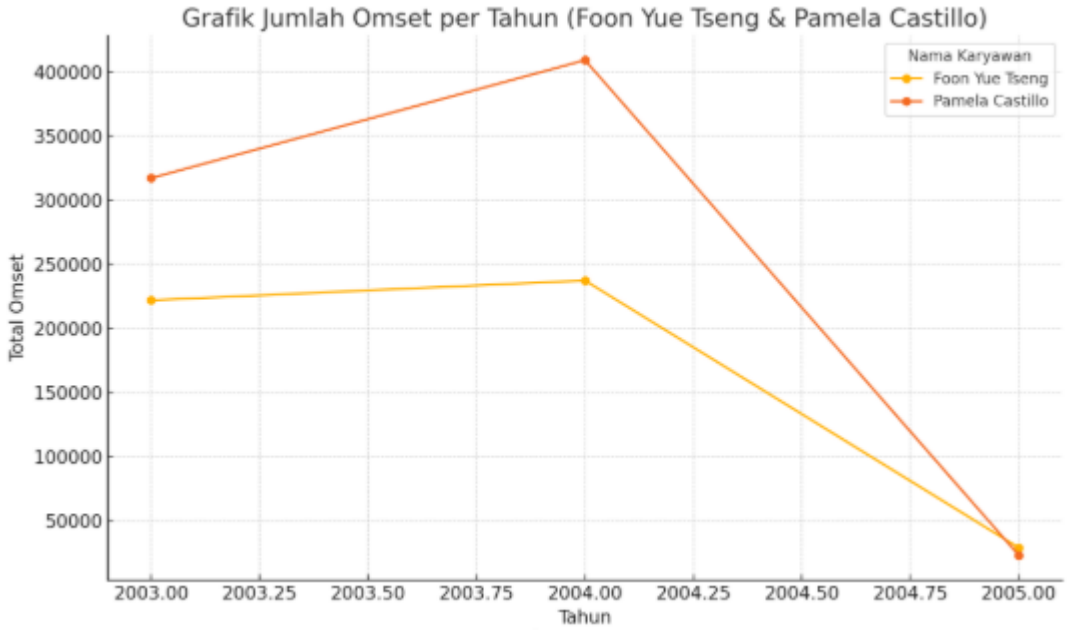
OLAP (JS 3):

- Digunakan untuk analisis data, pelaporan, dan pengambilan keputusan. Seperti melihat tren penjualan tahunan, total pendapatan per cabang, dsb.
- Membaca banyak data secara kompleks dan agregatif.

OLTP (JS 2):

- Digunakan untuk menangani transaksi harian yang cepat dan akurat. Seperti menyimpan data penjualan, input pelanggan baru, update stok.
- Transaksi cepat dan kecil (insert, update, delete).

2.

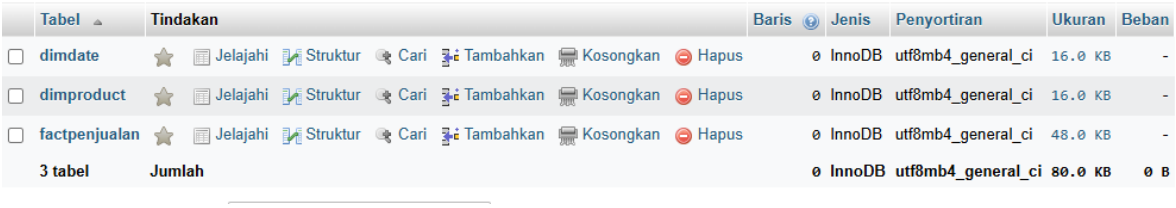


3. Nomor 2:
   Untuk nomor 2 saya memilih skema dimensional dengan menggunakan satu tabel fakta (factOmset) dan dua tabel dimensi (dimDate dan dimEmployees). Dengan cara ini, kita bisa menjumlahkan kolom amount pada tabel fakta, karena semua informasi tanggal dan karyawan sudah terstruktur di tabel dimensi, sehingga querynya jadi lebih sederhana dan performanya juga lebih baik untuk analisis OLAP.

   Jobsheet 2:
   Kalau pakai skema tradisional (relasional) dengan tabel transaksi seperti orders dan orderdetails, perhitungan omzet harus dilakukan dengan mengalikan jumlah produk (quantityOrdered) dengan harga satuan (priceEach) di setiap baris detail pesanan, kemudian menjumlahkan semuanya. Karena proses ini melibatkan join dan kalkulasi di banyak baris, maka umumnya lebih lambat dibandingkan skema dimensional yang sudah ter-aggregate di level fakta.

4. OLTP (Online Transaction Processing) itu sistem yang dipakai buat ngelola transaksi harian. Contohnya kayak pas kita belanja online, isi data pelanggan, pesanan, dan pembayaran. Sedangkan OLAP (Online Analytical Processing) lebih ke analisis data. Sistem ini biasa dipakai buat bantu manajemen ambil keputusan, misalnya ngelihat laporan penjualan per tahun, menganalisis performa karyawan, atau tren pembelian pelanggan.
   OLTP = buat operasional/transaksi sehari-hari (cepat, real-time).
   OLAP = buat analisis data dan laporan (detail, historis, lebih lambat).

Studi Kasus



	Tabel	Tindakan	Baris	Jenis	Penyortiran	Ukuran	Beban
☐	dimdate	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	16.0 KB	-
☐	dimproduct	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	16.0 KB	-
☐	factpenjualan	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	48.0 KB	-
	3 tabel	Jumlah	0	InnoDB	utf8mb4_general_ci	80.0 KB	0 B