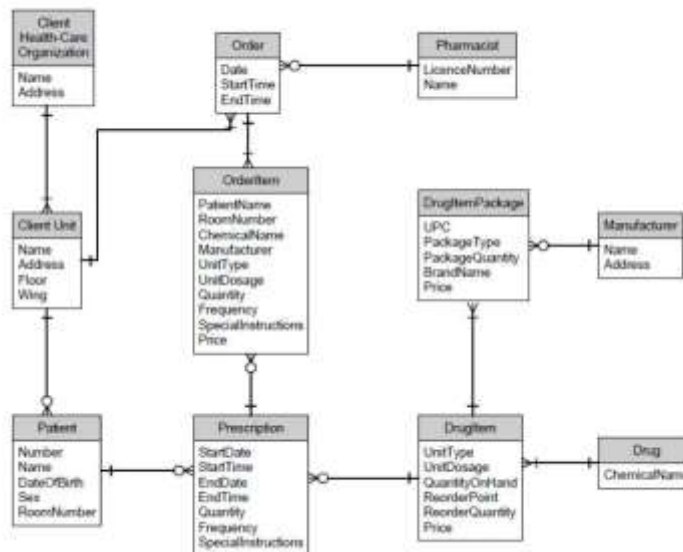


NAMA : Edward **Mata Kuliah : Advanced Database Systems**
NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**
 Silahkan memilih salah satu dari lima proses bisnis yang terdapat pada <https://bit.ly/3vUspMs>.



Tugas anda sebagai konsultan adalah untuk merancang data warehouse dengan memanfaatkan ERD yang ada pada proses bisnis yang dipilih.

1. **Rancanglah enterprise bus matrix** berdasarkan proses bisnis dan ERD yang dipilih. (10%)

Jawaban:

Grain	Drug	DrugItem	Manufacturer	DrugItemPackage	Prescription	Client Health-Care Organization	Pharmacist	OrderItem	Order	ClientUnit	Patient	Dimension Usage Count	Complexity
Daerah dengan Pembelian Tertinggi					x	x	x	x	x	x	x	7	C
Jenis Kelamin yang paling sering ke Apotik (Sudah Membeli)					x	x	x	x	x		x	5	M
Total Pembelian untuk setiap produk	x		x	x	x	x	x	x	x	x	x	7	C
Grain Usage Count	0	1	0	1	3	1	3	3	3	1	3		
Complexity	S	C	S	C	C	S	M	C	C	S	S		

Estimates													
Analysis	0,5	1,2	0,5	1,2	1,2	0,5	0,8	1,2	1,2	0,5	0,5	9,0	
Modeling	0,5	1,2	0,5	1,2	1,2	0,5	0,8	1,2	1,2	0,5	0,5	9,0	
Source Target Mapping	0,5	1,2	0,5	1,2	1,2	0,5	0,8	1,2	1,2	0,5	0,5	9,0	
Build & Unit Test	1,7	4,4	1,7	4,4	4,4	1,7	2,8	4,4	4,4	1,7	1,7	33,0	
Estimate	3,0	8,0	3,0	8,0	8,0	3,0	5,0	8,0	8,0	3,0	3,0	60,0	

Grain Estimates													
Analysis	1,2	1,2	1,2	4,4	8,0								
Modeling	0,8	0,8	0,8	2,8	5,0								
Source Target Mapping	1,2	1,2	1,2	4,4	8,0								
Build & Unit Test	3,2	3,2	3,2	12	21,0								
Estimate													

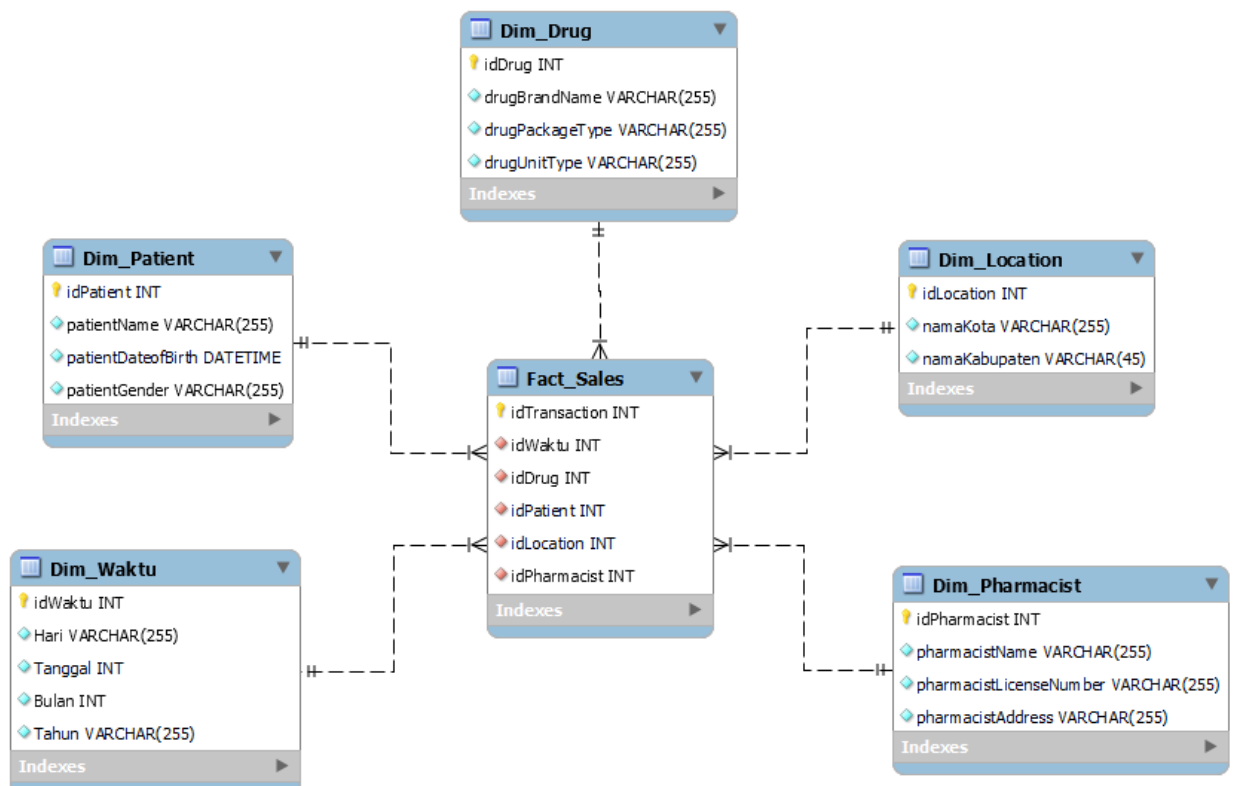
Total Days	81
------------	----

NAMA : Edward **Mata Kuliah : Advanced Database Systems**
NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**

Complexity Code	Complexity Name	Estimate (Days)	Fact Estimate (Days)	Description
S	Simple	1	3	A Simple Dimension or Fact is source from a single existing source, with mostly a one to one relationship between source columns and destination columns. The Source is readily available and accessible.
M	Medium	1,75	5	A Medium Dimension or Fact is source from a single existing source, with mostly a one to one relationship between source columns and destination columns. However the source many need to be created, purely for reporting purposes, or there may be many attributes or measures.
C	Complex	2,8	8	Complex will involves at least one issues like: the Source is undecided, data quality issues, multiple sources, many attributes, many measures, many dimension associations, or there are complex transformations and/or derived staging tables required to derive measures or attributes.
HC	Highly Complex	4,2	12	Highly Complex will involve a combination of a number of issues like: the Source is undecided, data quality issues, multiple sources, many attributes, many measures, many dimension associations, or there are complex transformations and/or derived staging tables required to derive measures or attributes.

2. **Rancanglah diagram star** atau snowflake atau constellation schema sesuai dengan kebutuhan dan hasil analisis dari proses bisnis dan ERD yang dipilih. (15%)

Jawaban:



NAMA : Edward **Mata Kuliah : Advanced Database Systems**
NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**

3. **Rancanglah proses untuk Extract, Transform, Load (ETL)** dari ERD yang dipilih ke sistem data warehouse yang dirancang. Anda dapat menggunakan tabel dibawah sebagai contoh format proses ETL. **(15%)**

Jawaban:

Source tables	Destination table	Transformation	Remark
Patient	Dim_Patient	Select to make all the required attributes that are available in the source table transformation available in the sub-transformation.	
Manufacturer, DrugItemPackage, Drug, DrugItem	Dim_Drug	Select to make all the required attributes that are available in the source table transformation available in the sub-transformation.	
Client Health-Care Organization, Client Unit	Dim_Location	Select to make all the required attributes that are available in the source table transformation available in the sub-transformation.	

NAMA : Edward **Mata Kuliah : Advanced Database Systems**
NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**

Pharmacist, Order, Client Health-Care Organization, Client Unit	Dim_Pharmacist	Select to make all the required attributes that are available in the source table transformation available in the sub-transformation.	
Prescription, Order	Dim_Waktu	Select to make all the required attributes that are available in the source table transformation available in the sub-transformation.	

NAMA : Edward Mata Kuliah : Advanced Database Systems
NIM : 2201741971 Kode Mata Kuliah : COMP8030
KELAS : LTY1 Faculty / Department : Binus Graduate Program / Master Track

4. Implementasikan table data warehouse yang anda rancang dengan menggunakan RDBMS pilihan anda. **Minimal setiap dimensi ada 15 records, dan fakta ada 50 records. (25%)**

Jawaban:

Dim_Waktu (61 Records)

```
-- Data for table 'mydb'. 'Dim_Waktu'

START TRANSACTION;
USE 'mydb';
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (1, 'Senin', 31, 1, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (2, 'Selasa', 30, 1, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (3, 'Rabu', 29, 1, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (4, 'Kamis', 28, 1, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (5, 'Jumat', 27, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (6, 'Sabtu', 26, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (7, 'Minggu', 25, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (8, 'Senin', 24, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (9, 'Selasa', 23, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (10, 'Rabu', 22, 3, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (11, 'Kamis', 21, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (12, 'Jumat', 20, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (13, 'Sabtu', 19, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (14, 'Minggu', 18, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (15, 'Senin', 17, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (16, 'Selasa', 16, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (17, 'Rabu', 15, 4, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (18, 'Kamis', 14, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (19, 'Jumat', 13, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (20, 'Sabtu', 12, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (21, 'Minggu', 11, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (22, 'Senin', 10, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (23, 'Selasa', 9, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (24, 'Rabu', 8, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (25, 'Kamis', 7, 5, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (26, 'Jumat', 6, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (27, 'Sabtu', 5, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (28, 'Minggu', 4, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (29, 'Senin', 3, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (30, 'Selasa', 2, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (31, 'Rabu', 1, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (32, 'Kamis', 30, 6, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (33, 'Jumat', 29, 7, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (34, 'Sabtu', 28, 7, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (35, 'Minggu', 27, 7, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (36, 'Senin', 26, 7, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (37, 'Selasa', 25, 7, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (38, 'Rabu', 24, 8, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (39, 'Kamis', 23, 8, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (40, 'Jumat', 22, 8, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (41, 'Sabtu', 21, 8, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (42, 'Minggu', 20, 8, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (43, 'Senin', 19, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (44, 'Selasa', 18, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (45, 'Rabu', 17, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (46, 'Kamis', 16, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (47, 'Jumat', 15, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (48, 'Sabtu', 14, 9, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (49, 'Minggu', 13, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (50, 'Senin', 12, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (51, 'Selasa', 11, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (52, 'Rabu', 10, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (53, 'Kamis', 9, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (54, 'Jumat', 8, 10, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (55, 'Sabtu', 7, 11, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (56, 'Minggu', 6, 11, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (57, 'Senin', 5, 11, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (58, 'Selasa', 4, 11, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (59, 'Rabu', 4, 12, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (60, 'Kamis', 3, 12, '2021');
INSERT INTO 'mydb'. 'Dim_Waktu' ('idWaktu', 'Hari', 'Tanggal', 'Bulan', 'Tahun') VALUES (61, 'Jumat', 2, 12, '2021');

COMMIT;
```


NAMA : Edward Mata Kuliah : Advanced Database Systems
NIM : 2201741971 Kode Mata Kuliah : COMP8030
KELAS : LTY1 Faculty / Department : Binus Graduate Program / Master Track
Dim_Drug (18 Records)

```
-----  
-- Data for table `mydb`.`Dim_Drug`  
-----  
START TRANSACTION;  
USE `mydb`;  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (1, 'Michelin', 'Satuan', 'Kapsul');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (2, 'Other', 'Satuan', 'Kaplet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (3, 'Hobbler', 'Satuan', 'Tablet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (4, 'Non Brand', 'Botol', 'Pil');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (5, 'Corssa Planeto', 'Kemasan', 'Puyer');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (6, 'Aspira', 'Sachet', 'Cair');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (7, 'Massimo', 'Satuan', 'Kapsul');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (8, 'Yuasa Accu', 'Satuan', 'Kaplet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (9, 'Planet Ban', 'Satuan', 'Tablet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (10, 'Corssa', 'Botol', 'Pil');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (11, 'IRC', 'Kemasan', 'Puyer');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (12, 'Aspira Premio', 'Sachet', 'Cair');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (13, 'Mitsuboshi', 'Satuan', 'Kapsul');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (14, 'RCA', 'Satuan', 'Kaplet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (15, 'Presa Planeto', 'Satuan', 'Tablet');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (16, 'Motul', 'Botol', 'Pil');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (17, 'Sprite', 'Kemasan', 'Puyer');  
INSERT INTO `mydb`.`Dim_Drug` (`idDrug`, `drugBrandName`, `drugPackageType`, `drugUnitType`) VALUES (18, 'Ecomax', 'Sachet', 'Cair');  
  
COMMIT;
```

Dim_Location (15 Records)

```
-----  
-- Data for table `mydb`.`Dim_Location`  
-----  
START TRANSACTION;  
USE `mydb`;  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (1, 'Semarang', 'Semarang');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (2, 'Yogyakarta', 'Bantul');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (3, 'Bantul', 'Bantul');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (4, 'Tegal', 'Tegal');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (5, 'Majalengka', 'Majalengka');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (6, 'Purwakarta', 'Purwakarta');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (7, 'Sukabumi', 'Sukabumi');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (8, 'Banyumas', 'Banyumas');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (9, 'Boyolali', 'Boyolali');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (10, 'Brebes', 'Brebes');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (11, 'Demak', 'Demak');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (12, 'Grobogan', 'Grobogan');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (13, 'Jepara', 'Jepara');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (14, 'Kebumen', 'Kebumen');  
INSERT INTO `mydb`.`Dim_Location` (`idLocation`, `namaKota`, `namaKabupaten`) VALUES (15, 'Klaten', 'Klaten');  
  
COMMIT;
```

Dim_Patient (15 Records)

```
-----  
-- Data for table `mydb`.`Dim_Patient`  
-----  
START TRANSACTION;  
USE `mydb`;  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (1, 'Edward', '2000-04-16 17:15:18', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (2, 'Evelyn', '2004-12-22 15:13:18', 'Female');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (3, 'Julianto', '1972-07-17 10:15:17', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (4, 'Viyan', '1975-04-20 10:17:15', 'Female');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (5, 'Sulistijono', '2001-08-17 17:15:10', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (6, 'Darmawan', '1978-10-28 13:15:18', 'Female');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (7, 'Hansen', '2001-01-07 12:55:13', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (8, 'Fiona', '2002-04-21 10:20:14', 'Female');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (9, 'Samuel', '2000-04-16 11:13:12', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (10, 'Vivi', '1908-05-14 16:14:12', 'Female');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (11, 'Anton', '1973-02-10 07:20:12', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (12, 'Budi', '1974-09-10 20:12:07', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (13, 'Charlie', '1976-11-12 21:25:12', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (14, 'Frank', '1977-12-06 07:20:12', 'Male');  
INSERT INTO `mydb`.`Dim_Patient` (`idPatient`, `patientName`, `patientDateofBirth`, `patientGender`) VALUES (15, 'John', '1981-01-08 08:35:16', 'Male');  
  
COMMIT;
```

NAMA : Edward **Mata Kuliah : Advanced Database Systems**
NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**
Dim_Pharmacist (15 Records)

```

-- Data for table 'mydb'.Dim_Pharmacist
-----
START TRANSACTION;
USE 'mydb';
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (1, 'Clarice Snow', '00909957', 'Jalan A');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (2, 'Randy Compton', '0100429', 'Jalan B');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (3, 'Clint Morris', '0650-4070-7493', 'Jalan C');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (4, 'Shon Haas', 'K 316 362 213 824', 'Jalan D');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (5, 'Janette Mayer', 'H9891283', 'Jalan E');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (6, 'Susan Horton', '46027640', 'Jalan F');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (7, 'Marcella Mahoney', '14-405-3280', 'Jalan G');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (8, 'Randall Barr', '9164338516', 'Jalan H');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (9, 'Linda Duncan', '0384-5878-6334', 'Jalan I');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (10, 'Lemuel Zhang', 'P8191 11578 00913', 'Jalan J');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (11, 'Malinda Liu', '872517544', 'Jalan K');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (12, 'Florentino Bryan', 'K88-22-6471', 'Jalan L');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (13, 'Lynn Hendrix', '393 763 809', 'Jalan M');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (14, 'Curtis Hyatt', '27-981-9483', 'Jalan N');
INSERT INTO 'mydb'.Dim_Pharmacist ('idPharmacist', 'pharmacistName', 'pharmacistLicenseNumber', 'pharmacistAddress') VALUES (15, 'Frederic Bailey', '28572816', 'Jalan O');

COMMIT;

```

Fact_Sales (755 Records)

```

-- Data for table 'mydb'.Fact_Sales
-----
START TRANSACTION;
USE 'mydb';
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (1, 18, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (2, 19, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (3, 20, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (4, 21, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (5, 22, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (6, 23, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (7, 24, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (8, 25, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (9, 18, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (10, 19, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (11, 20, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (12, 21, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (13, 22, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (14, 23, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (15, 24, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (16, 25, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (17, 18, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (18, 19, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (19, 20, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (20, 21, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (21, 22, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (22, 23, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (23, 24, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (24, 25, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (25, 18, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (26, 19, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (27, 20, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (28, 21, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (29, 22, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (30, 23, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (31, 24, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (32, 25, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (33, 18, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (34, 19, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (35, 20, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (36, 21, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (37, 22, 1, 1, 1, 6);
INSERT INTO 'mydb'.Fact_Sales ('idTransaction', 'idWaktu', 'idDrug', 'idPatient', 'idLocation', 'idPharmacist') VALUES (38, 23, 1, 1, 1, 6);

```


: Advanced Database Systems

Kode Mata Kuliah : COMP8030

Faculty / Department : Binus Graduate Program / Master Track

[illegible]

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[illegible]

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: COMP8030

Faculty / Department : Binus Graduate Program / Master Track

[illegible]

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[illegible]

COMMIT:

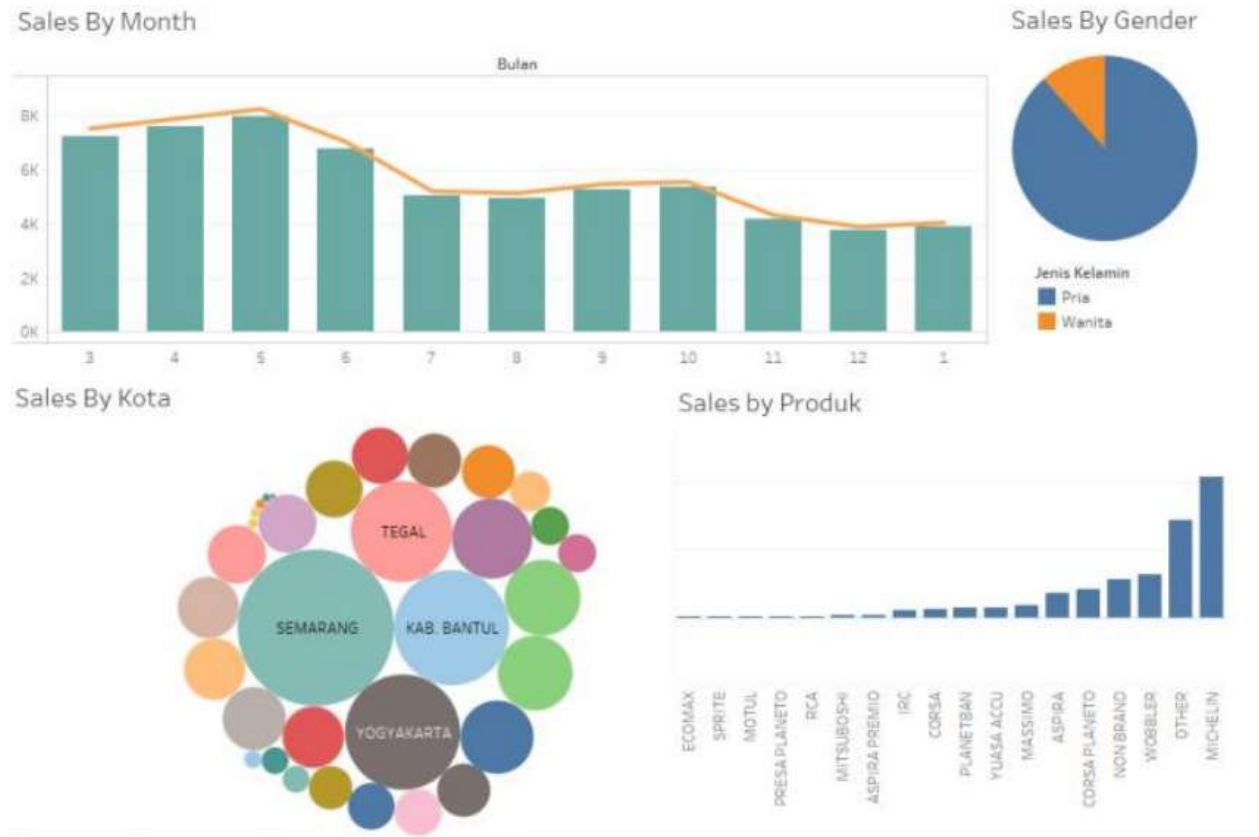
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NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**

5. **Rancanglah dashboard BI untuk data warehouse yang anda rancang** dengan menggunakan tools pilihan anda. Jelaskan juga perancangan anda. (35%)

Jawaban:

Nama Kueri	Proses Kueri
Transaksi per Bulan	SELECT [Measures].[Fact_Sales Count] on Columns, NON EMPTY order({[Dim_Waktu].[Bulan].[1], [Dim_Waktu].[Bulan].[2], [Dim_Waktu].[Bulan].[3], [Dim_Waktu].[Bulan].[4], [Dim_Waktu].[Bulan].[5], [Dim_Waktu].[Bulan].[6], [Dim_Waktu].[Bulan].[7], [Dim_Waktu].[Bulan].[8], [Dim_Waktu].[Bulan].[9], [Dim_Waktu].[Bulan].[10], [Dim_Waktu].[Bulan].[11], [Dim_Waktu].[Bulan].[12]}, [Measures].[Bulan], ASC) on Rows FROM [Dim_Waktu];
Transaksi per Kota	SELECT [Measures].[Fact_Sales Count] on Columns, NON EMPTY order([Dim_Location].[Nama Kota].members, [Measures].[Dim_Location Count], ASC) on Rows FROM [Dim_Location];
Transaksi per Produk	SELECT [Measures].[Fact_Sales Count] on Columns, NON EMPTY order ([Dim_Drug].[drugBrandName].members, [Measures].[Fact_Sales Count], DESC) on Rows FROM [Dim_Drug];
Transaksi per Jenis Kelamin	SELECT [Measures].[Fact_Sales Count] on Columns, NON EMPTY order ({[Dim_Patient].[patientGender].[Pria], [Dim_Patient].[patientGender].[Wanita]}, [Measures].[Fact_Sales Count], DESC) on Rows FROM [Dim_Patient];

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NIM : 2201741971 **Kode Mata Kuliah : COMP8030**
KELAS : LTY1 **Faculty / Department : Binus Graduate Program / Master Track**
Hasil Dashboard Menggunakan Tools Tableau:



Materi yang dikumpulkan:

- Softcopy star atau snowflake, atau constellation diagram
- Softcopy tabel source to target mapping proses ETL
- Script SQL untuk membuat masing-masing tabel fakta dan dimensi
- Softcopy screenshot dashboard BI