Practicum Case	
ISYS6169 | T0206 Database Systems	BINUS **UNIVERSITY** Software Laboratory Center
Information Systems	**E1-ISYS6169-AM01**
Valid on Even Semester Year 2019/2020	**Revision 00**

Learning Outcomes

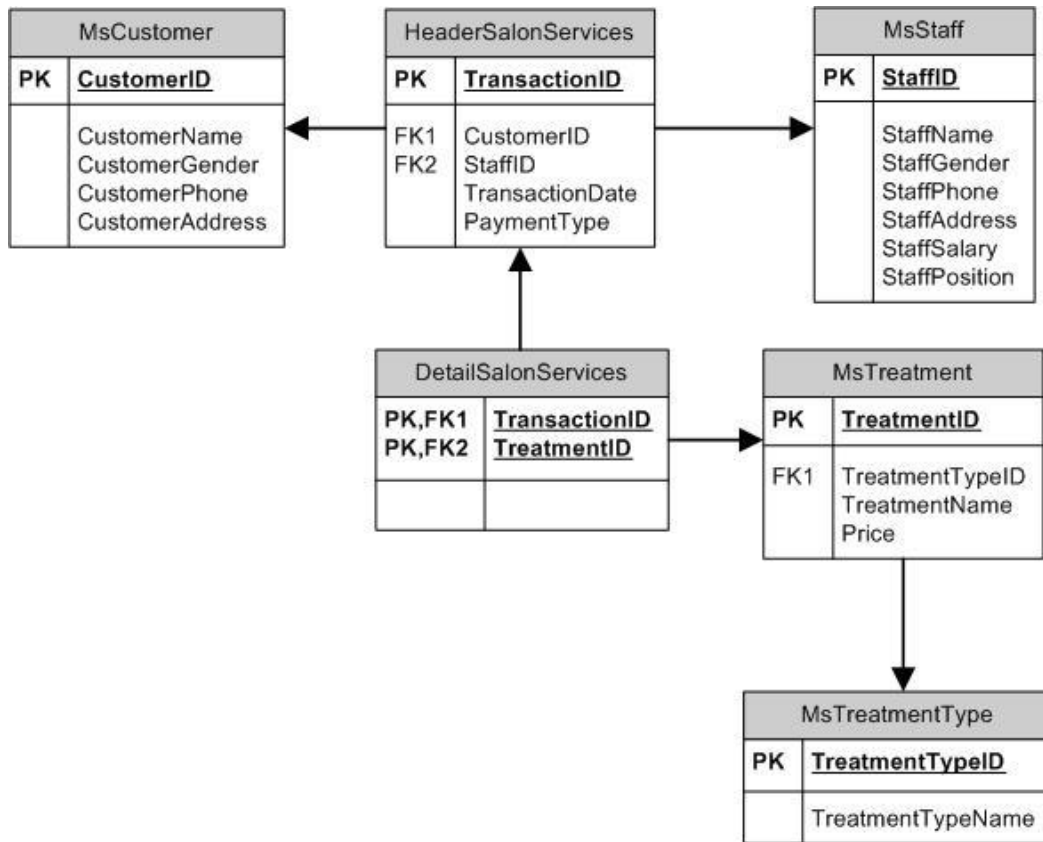- Apply database language and SQL Programming language

Topic

- Session 02 **-** SQL – Data Definition (1)

Sub Topics

- Introducing table and referential integrity
- Primary and Foreign Key
- Constraint Value
- Drop Table
- Alter Table

Tabel Relasional
Relational Table

Sintaks
Syntax

Create Table
CREATE TABLE **table_name**
(
      field1_name datatype (length) [NOT NULL]
      , field2_name datatype (length) [NOT NULL]
      , field3_name datatype (length) [NOT NULL]
      [, …]
      [, PRIMARY KEY (field_name [, …])]
      [, FOREIGN KEY (field_name) REFERENCES **table_name** (field_name)]
      [, CONSTRAINT constraint_name CHECK (criteria)]
)

Drop Table
DROP TABLE **table_name**

Alter Table
ALTER TABLE **table_name**
{ ADD column_name datatype |
  DROP COLUMN column_name |
  ALTER COLUMN column_name datatype |
  ADD CONSTRAINT constraint_name CHECK(criteria) |
  ADD PRIMARY KEY (primary_key_name) |
  DROP CONSTRAINT constraint_name }

Soal
Case

1. Create tables with the following descriptions :
   (**create table**, **like**)

   Table's Name   : **MsCustomer**
   Primary Key   : **CustomerId**

Field Name	Data Type	Length	Description
CustomerId	CHAR	5	Cannot be empty, must be started with 'CU' and followed by 3 characters of number. Example: CU001
CustomerName	VARCHAR	50	-
CustomerGender	VARCHAR	10	Must be 'Male' or 'Female'
CustomerPhone	VARCHAR	13	-
CustomerAddress	VARCHAR	100	-

   Table's Name   : **MsStaff**
   Primary Key   : **StaffId**

Field Name	Data Type	Length	Description
StaffId	CHAR	5	Cannot be empty, must be started with 'SF' and followed by 3 characters of number. Example: SF001
StaffName	VARCHAR	50	-
StaffGender	VARCHAR	10	Must be 'Male' or 'Female'
StaffPhone	VARCHAR	13	-
StaffAddress	VARCHAR	100	-
StaffSalary	NUMERIC	11,2	-
StaffPosition	VARCHAR	20	-

   Table's Name   : **MsTreatmentType**
   Primary Key   : **TreatmentTypeId**

Field Name	Data Type	Length	Description
TreatmentTypeId	CHAR	5	Cannot be empty, must be started with 'TT' and followed by 3 characters of

Field Name	Data Type	Length	Description
			number. Example: TT001
TreatmentTypeName	VARCHAR	50	-

Table's Name   : **MsTreatment**
Primary Key   : **TreatmentId**

Field Name	Data Type	Length	Description
TreatmentId	CHAR	5	Cannot be empty, must be started with 'TM' and followed by 3 characters of number. Example: TM001
TreatmentTypeId	CHAR	5	Cannot be empty, references from **MsTreatmentType** and if the referenced data is changed then the TreatmentTypeId data in **MsTreatment** will also be changed
TreamentName	VARCHAR	50	-
Price	NUMERIC	11,2	-

Table's Name   : **HeaderSalonServices**
Primary Key   : **TransactionId**

Field Name	Data Type	Length	Description
TransactionId	CHAR	5	Cannot be empty, must be started with 'TR' and followed by 3 characters of number. Example: TR001
CustomerId	CHAR	5	Cannot be empty, references from **MsCustomer** and if the referenced data is changed then the CustomerId data in **HeaderSalonServices** will also be changed
StaffId	CHAR	5	Cannot be empty, references from **MsStaff** and if the referenced data is changed then the StaffId data in **HeaderSalonServices** will also be changed
TransactionDate	DATE	-	-
PaymentType	VARCHAR	20	-

Table's Name   : **DetailSalonServices**
Primary Key   : TransactionId, TreatmentId

Field Name	Data Type	Length	Description
TransactionId	CHAR	5	Cannot be empty, references from

			HeaderSalonServices and if the referenced data is changed then the TransactionId data in DetailSalonServices will also be changed
TreatmentId	CHAR	5	Cannot be empty, references from MsTreatment and if the referenced data is changed then the TreatmentId data in DetailSalonServices will also be changed

2. Delete the **DetailSalonServices** table.
   (**drop table**)

3. Create tables with the following descriptions :

   Table's Name   : **DetailSalonServices**

Field Name	Data Type	Length	Description
TransactionId	CHAR	5	Cannot be empty, references from **HeaderSalonServices** and if the referenced data is changed then the TransactionId data in **DetailSalonServices** will also be changed
TreatmentId	CHAR	5	Cannot be empty, references from **MsTreatment** and if the referenced data is changed then the TreatmentId data in **DetailSalonServices** will also be changed

   Then, with **alter** syntax, change the TransactionId and TreatmentId field to become primary key on that table.
   (**create table**, **alter table**, **primary key**)

4. Add a constraint for **MsStaff** table to validate that staff's name must be between 5 and 20 characters and the previous data is not necessary to be checked. Then, delete the constraint.
   (**alter table**, **with nocheck**, **add constraint**, **drop**)

5. Add 'Description' as a new column on **MsTreatment** table with varchar(100) data type. Then, delete the column.
   (**alter table**, **add**, **drop column**)