


Soal Praktikum <i>Practicum Case</i>	
ISYS6028 Database Systems	
Teknik Informatika <i>Computer Science</i>	
Periode Berlaku Semester Ganjil 2017/2018 <i>Valid on Odd Semester Year 2017/2018</i>	Revisi 00 <i>Revision 00</i>

Learning Outcomes

- Apply database language and SQL Programming language

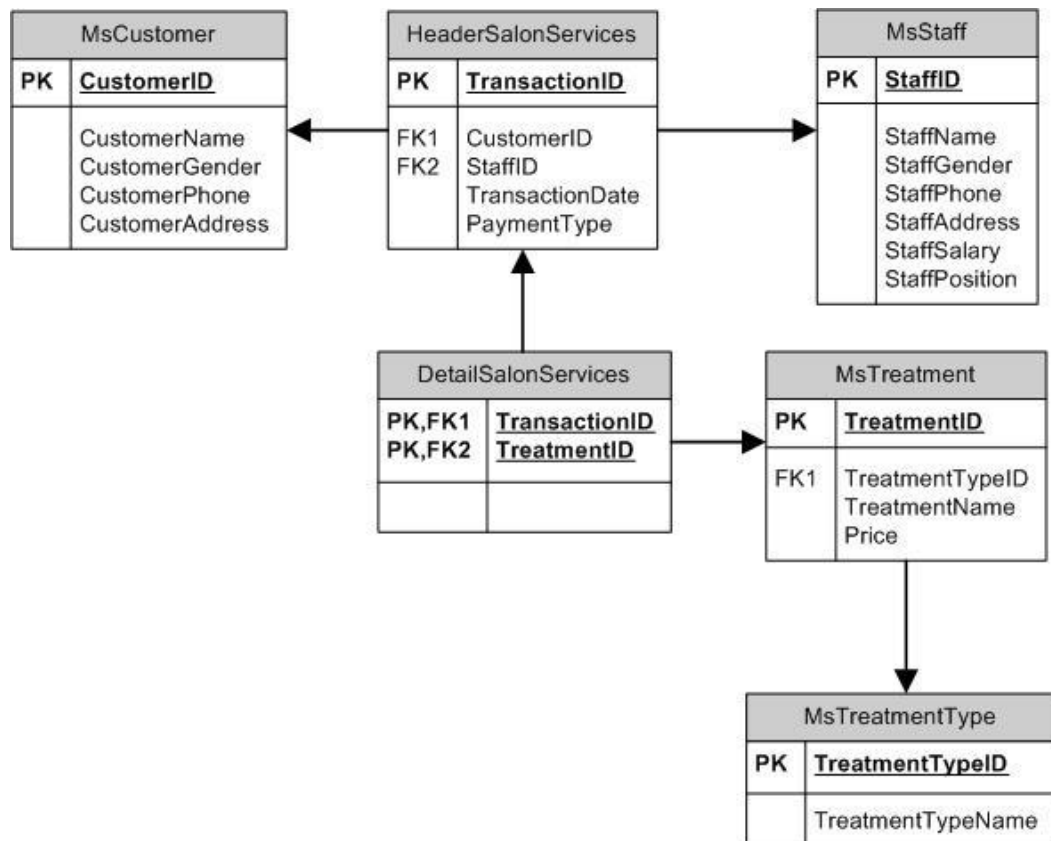
Topic

- 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



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 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
TreatmentName	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**)