# DATABASE SYSTEM PRACTICUM REPORT

# MODULE 2

**DATA BASE DESIGN**



**CREATED BY :**

**KURNIAWAN BAGASKARA**

**L200214253**

# INFORMATICS STUDY PROGRAM

**FACULTY OF COMMUNICATION AND INFORMATION SCIENCE MUHAMMADIYAH SURAKARTA UNIVERSITY**

* Define Entity ( Stage 1)

1. Student: store student personal data
2. Lecturer: save the personal data of the lecturer
3. Subject : save course data
4. Classroom : store classroom data

* Determine the attributes of each entity according to the needs of the database ( Stage 2)

1. Student

* NIM : PK
* Name\_Student : Varchar (45)
* Address\_Student : Varchar (225)

1. Lecturer

* NIDN : PK
* Name\_Lecturer : Varchar (45)
* Address\_Lecturer : Varchar (225)

1. Subject

* Code\_Subject : PK
* Name\_Subject : Varchar (45)
* Semester : Varchar (14)
* SKS : Varchar (149)

1. Classroom

* Code\_Space : PK
* Capasity : Varchar
* Determine the relationship of each entity ( Stage 3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Student | Lecturer | Subject | Classroom |
| Student | - | 1:1 | - | - |
| Lecturer | - | - | 1:1 | - |
| Subject | n:1 | - | - | - |
| Classroom | - | - | 1:1 | - |

Releationship :

1. Student Have Lecturer :

* Main Table : Student
* Second Table : Lecturer
* Realationship : *One-to-One (1:1)*
* Connecting attribute : Id\_Lecturer ( FK Id\_Lecturer in Lecturer )

1. Student Take Subject

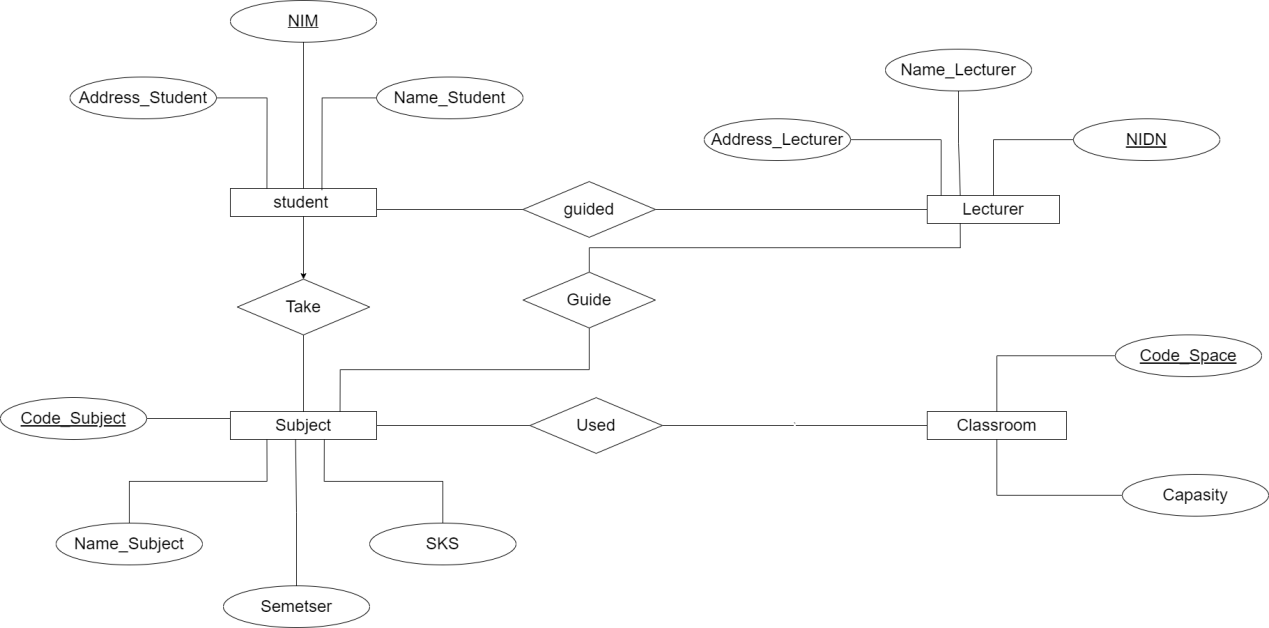
* Main Table : Student
* Second Table : Subject
* Relationship : *One-to-Many (1:n)*
* Connecting attribute : Code\_Subject ( FK Code\_Subject in Subject )

1. Classroom Used Subject :

* Main Table : Subejct
* Second Table : Classroom
* Realationship : *One-to-One (1:1)*
* Connecting attribute : Code\_Space ( FK Code\_Space in Classroom )

1. Lecturer Guide Subject :

* Main Table : Subject
* Second Table : Lecturer
* Relationship : *One-to-One (1:1)*
* Connecting attribute : Code\_Subject ( FK Code\_Subject in Subject )
* Draw ERD Diagrams

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* Define Entity (Stage 1)

1. User
2. Product
3. Store
4. Order

* Determine the attributes of each entity according to the needs of the database ( Stage 2)

1. User

* Id\_User : Integer
* User\_Name : Varchar(45)

1. Product

* Id\_Product : Integer
* Product\_Name : Varchar(225)
* Product\_Price : Integer
* Product\_Stock : Integer

1. Store

* Id\_Store : Integer
* Store\_Name : Varchar(225)

1. Order

* Id\_Order : Integer
* Order\_Time : Date
* Determine the relationship of each entity ( Stage 3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | User | Product | Store | Order |
| User | - | - | - | 1:n |
| Product | - | - | - | n:1 |
| Store | 1:1 | 1:n | - | - |
| Order | - | - | 1:1 | - |

1. User Orders Order

* Main Table : User
* Second Table : Order
* Relationship : *One to Many (1:n)*
* Connecting attribute : Id\_User( FK Id\_User in Order )

1. Store Have Product

* Main Table : Store
* Second Table : User
* Relationship : *One to one (1:1)*
* Connecting attribute : Id\_Store ( FK Id\_Store in User )

1. Store Own Product

* Main Table : Store
* Second Table : Store\_Own\_Product
* Relationship : *One to Many (1:n)*
* Connecting attribute : Id\_Store ( FK Id\_Store in Product )

1. Product Owned Order

* Main Table : Product
* Second Table : Product\_Owned\_Order
* Relationship : *Many to One(1:n)*
* Connecting attribute : Id\_Product ( FK Id\_Product in Order )

1. Order Owned Store

* Main Table : Order
* Second Table : Order\_Owned\_Store
* Relationship : *One to one (1:1)*
* Connecting attribute : Id\_Order ( FK Id\_Order in Store )
* Draw ERD Diagrams ( Stage 4)

