

Analisis dan Desain Teknologi

Pertemuan-5



Dr. Sutedi, S.Kom., M.T.I

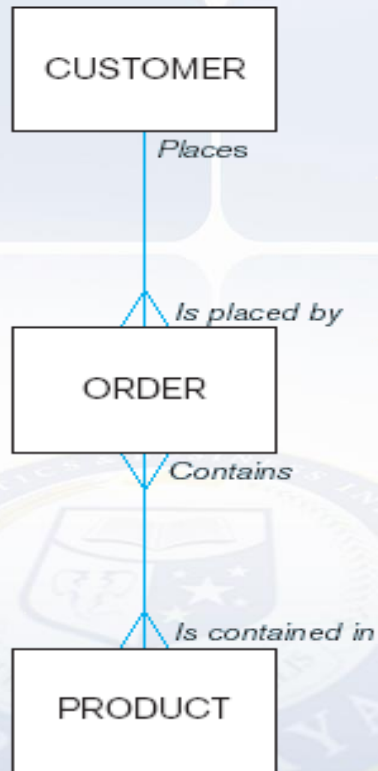
Pentingnya Konsep *Database*

- ❖ Kemandirian program dan data serta memperbaiki akses data
- ❖ Mengurangi redudansi data
- ❖ Memperbaiki konsistensi data
- ❖ Memperbaiki kesempatan berbagi data
- ❖ Meningkatkan produktivitas pengembangan aplikasi dan mengurangi biaya pemeliharaan program
- ❖ Standarisasi dan memperbaiki kualitas data

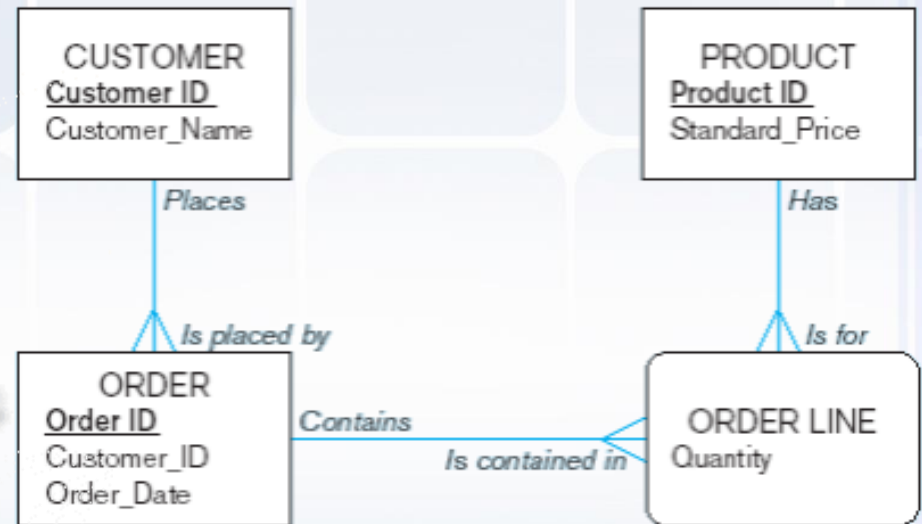


Sudut Pandang Dalam Memodelkan Data

Enterprise Data Model



Project-Level Data Model



Model *Entity-Relationship*

Entitas

Tipe entitas

Instance entitas



Model *Entity-Relationship*

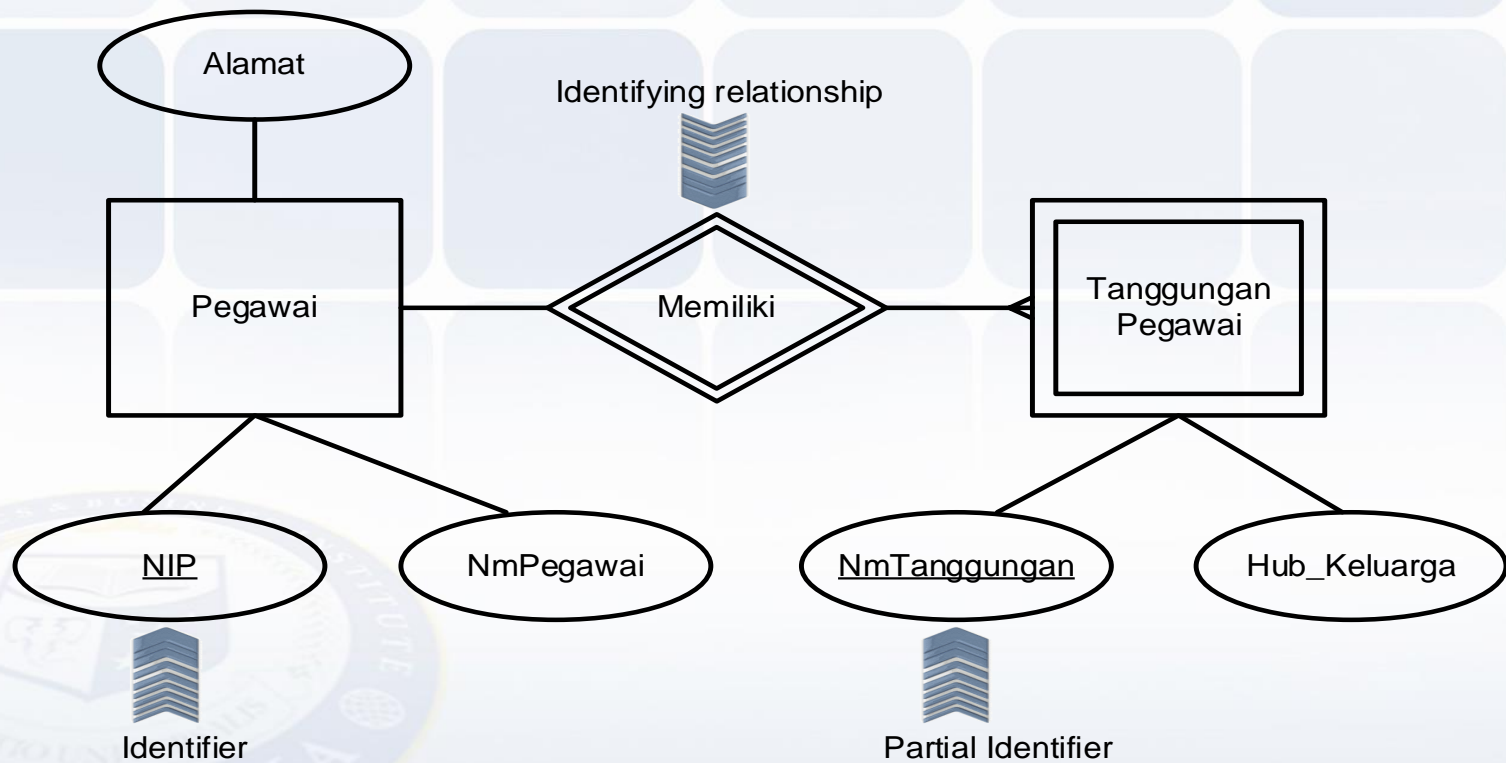
Strong Entity

Weak Entity

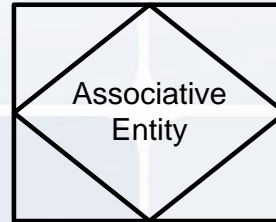


Model *Entity-Relationship*

Contoh *Strong Entity* dan *Weak Entity*:

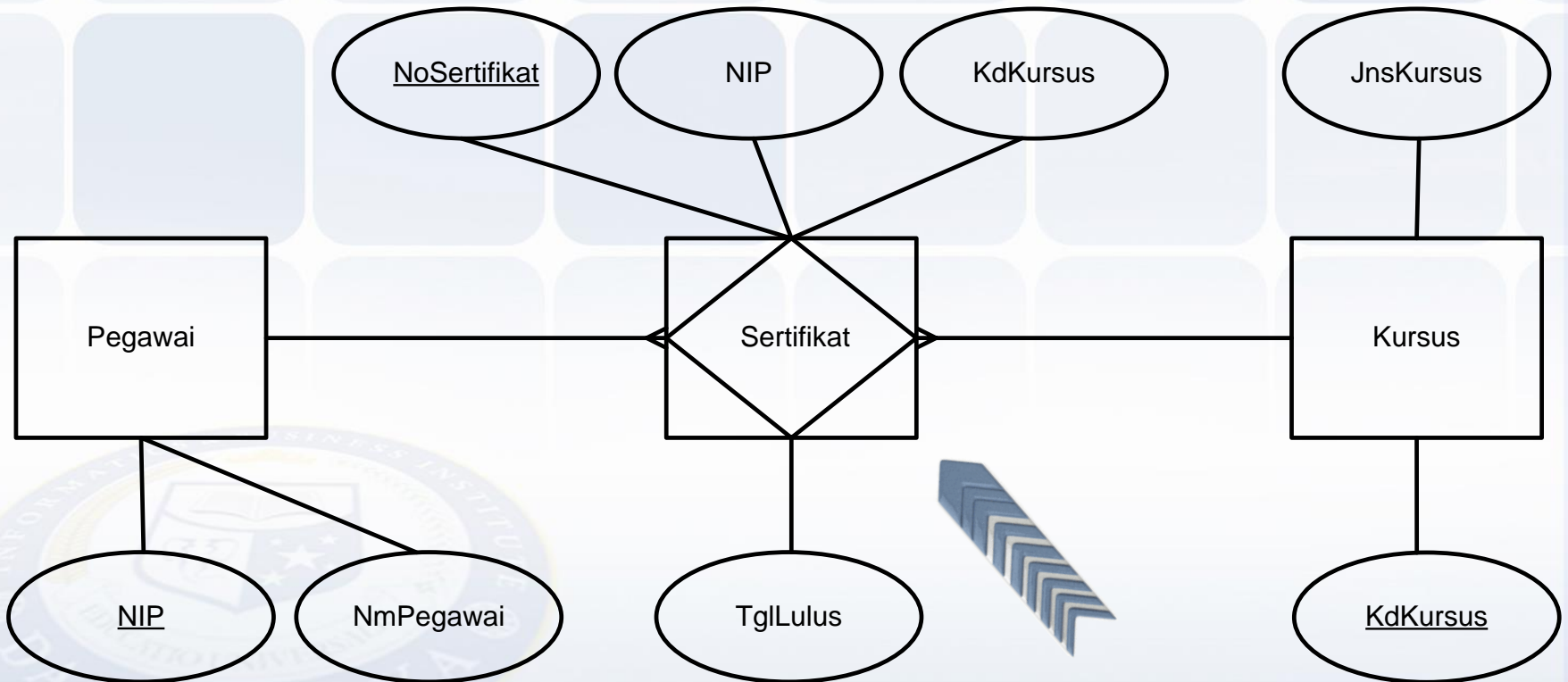


Model *Entity-Relationship*



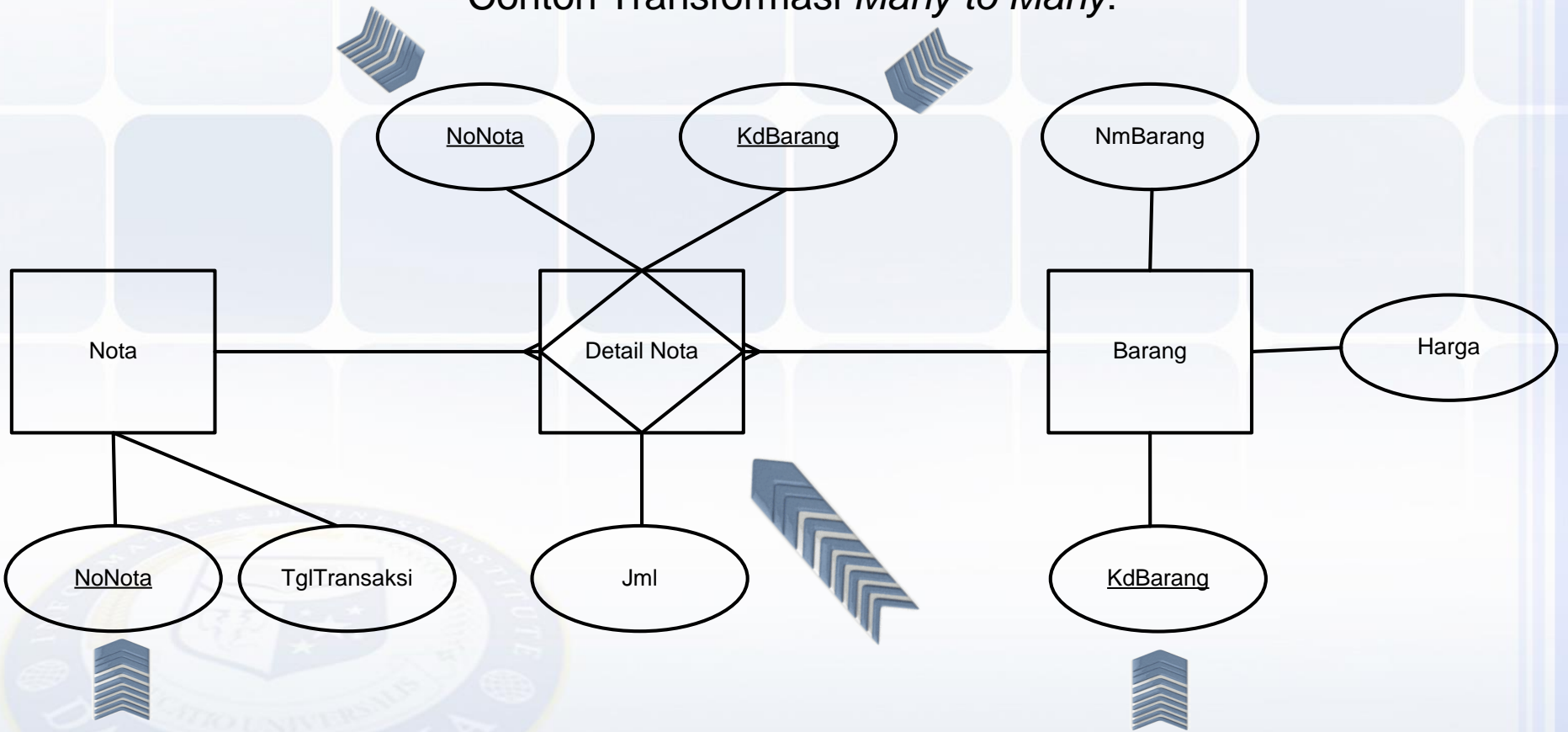
Model *Entity-Relationship*

Contoh *Associative Entity* :



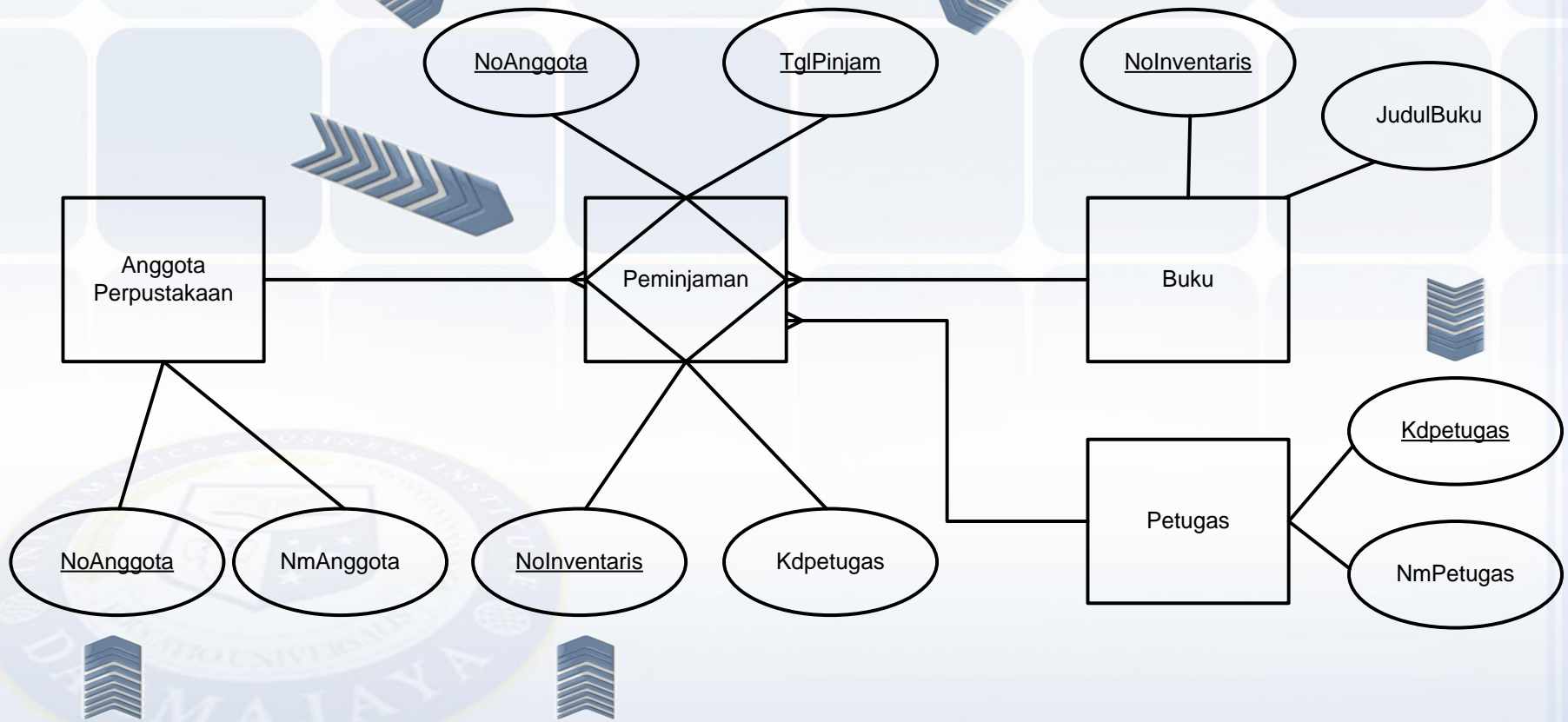
Model *Entity-Relationship*

Contoh Transformasi *Many to Many*:



Model *Entity-Relationship*

Contoh Transformasi *Ternary Degree*:



Model *Entity-Relationship*

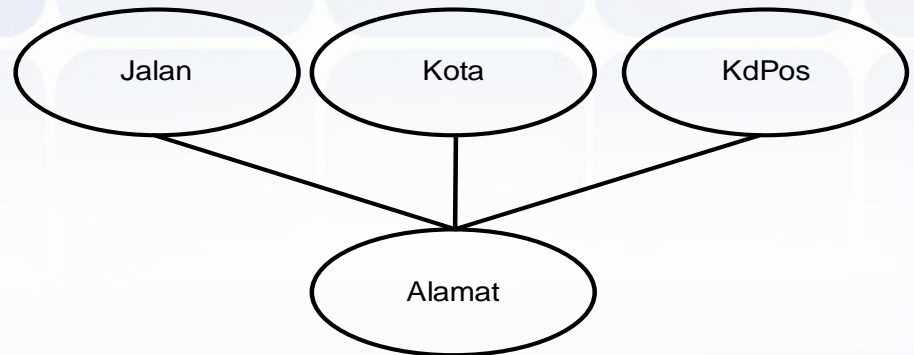
Atribut

Sederhana

Komposit



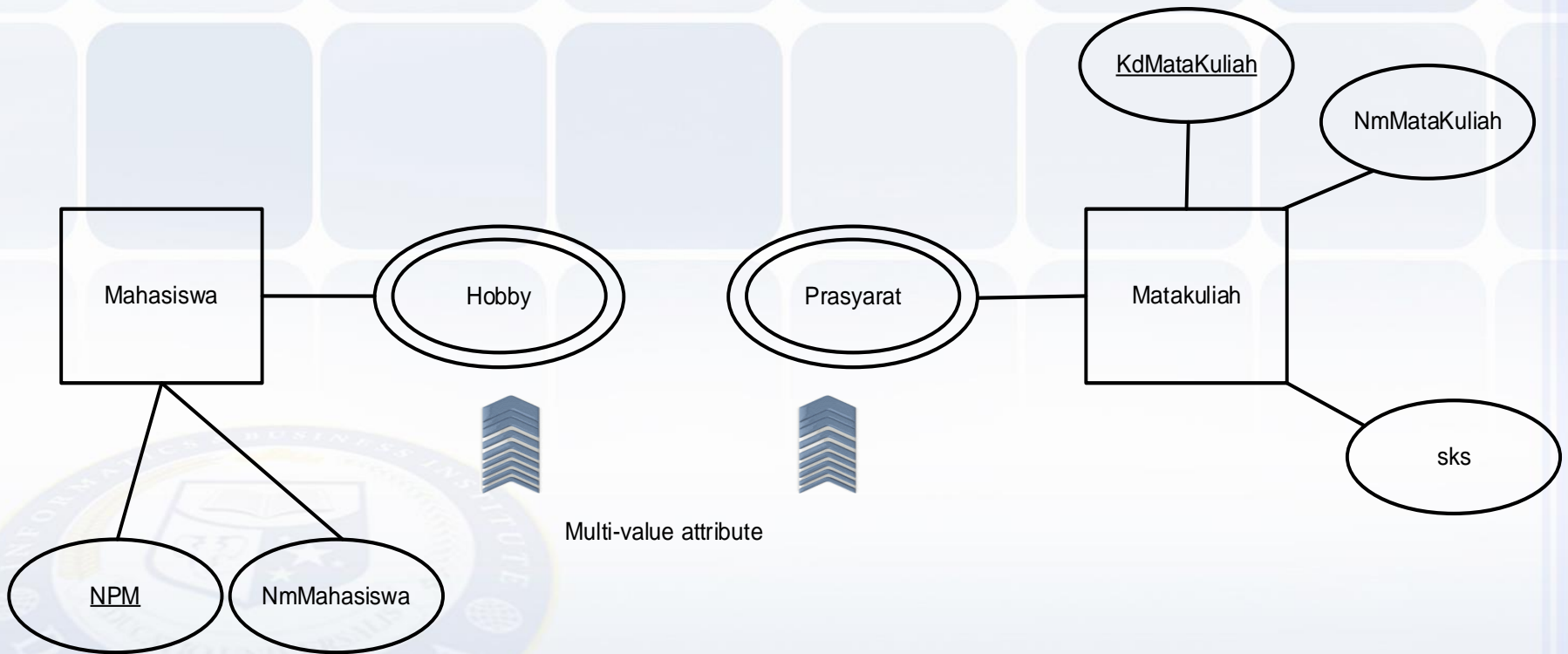
Atribut sederhana



Atribut komposit

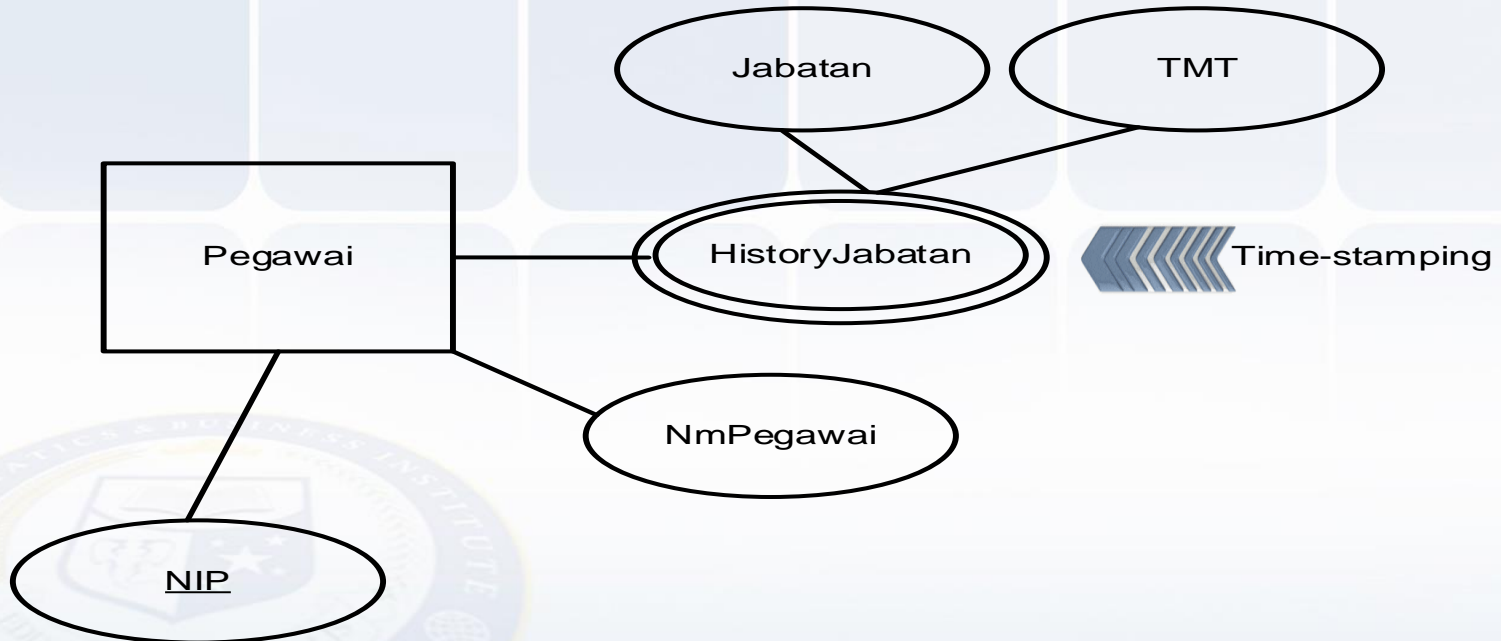
Model *Entity-Relationship*

Atribut *Multi-Value*



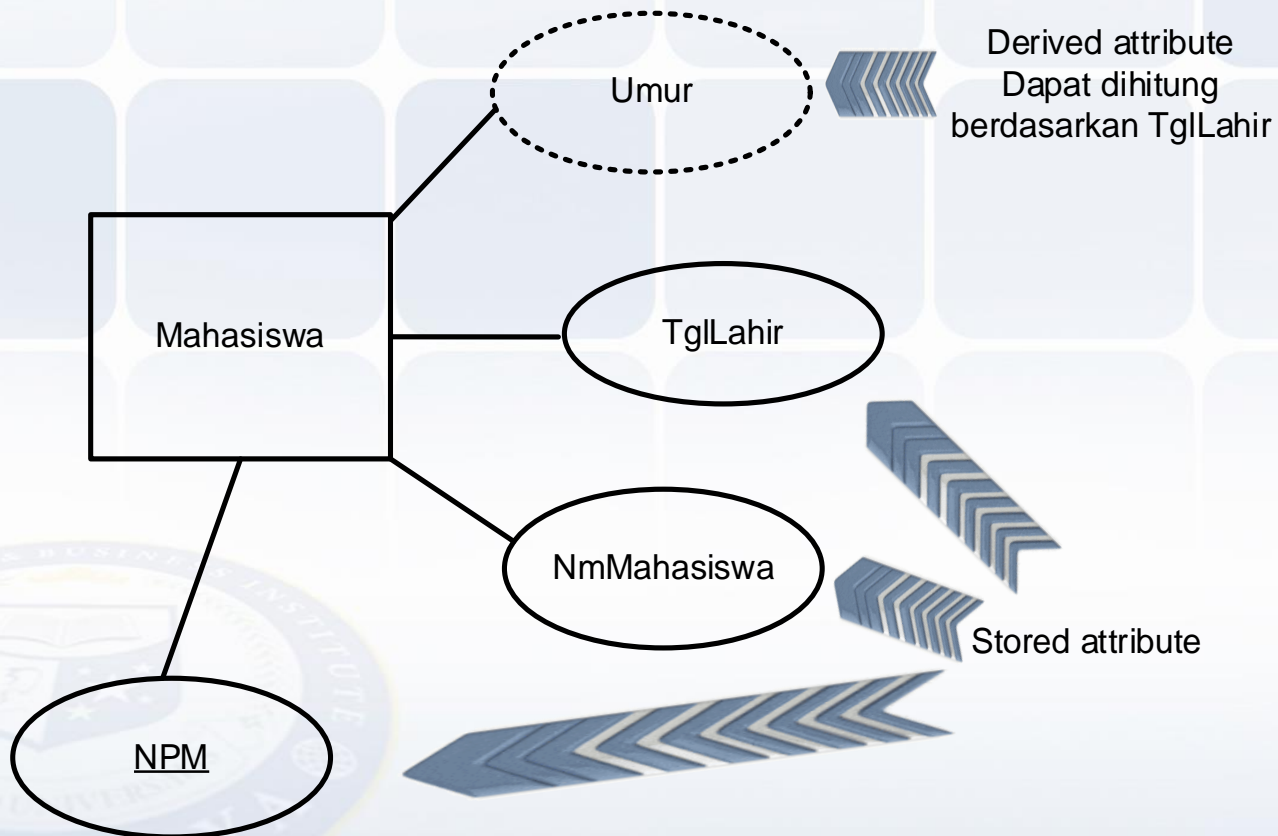
Model *Entity-Relationship*

Atribut Komposit dan *Multi-Value*



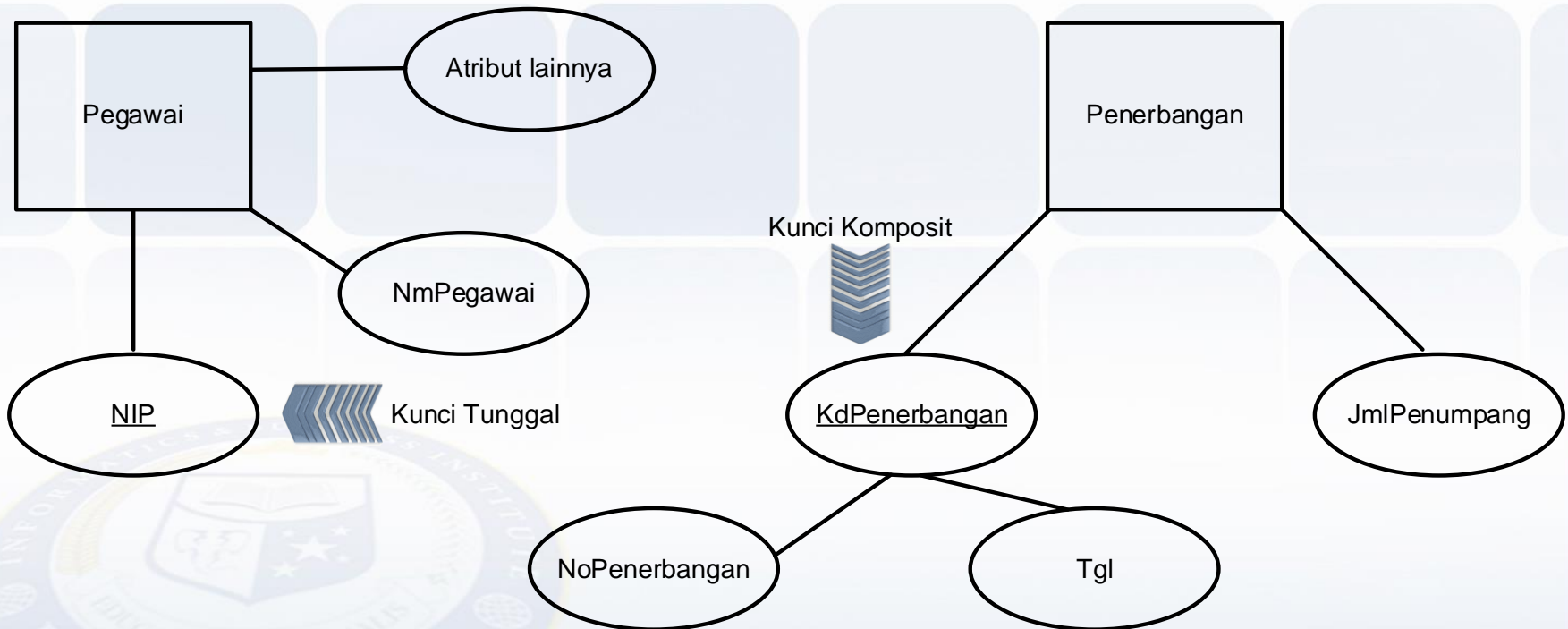
Model *Entity-Relationship*

Stored Attribute dan Derived Attribute



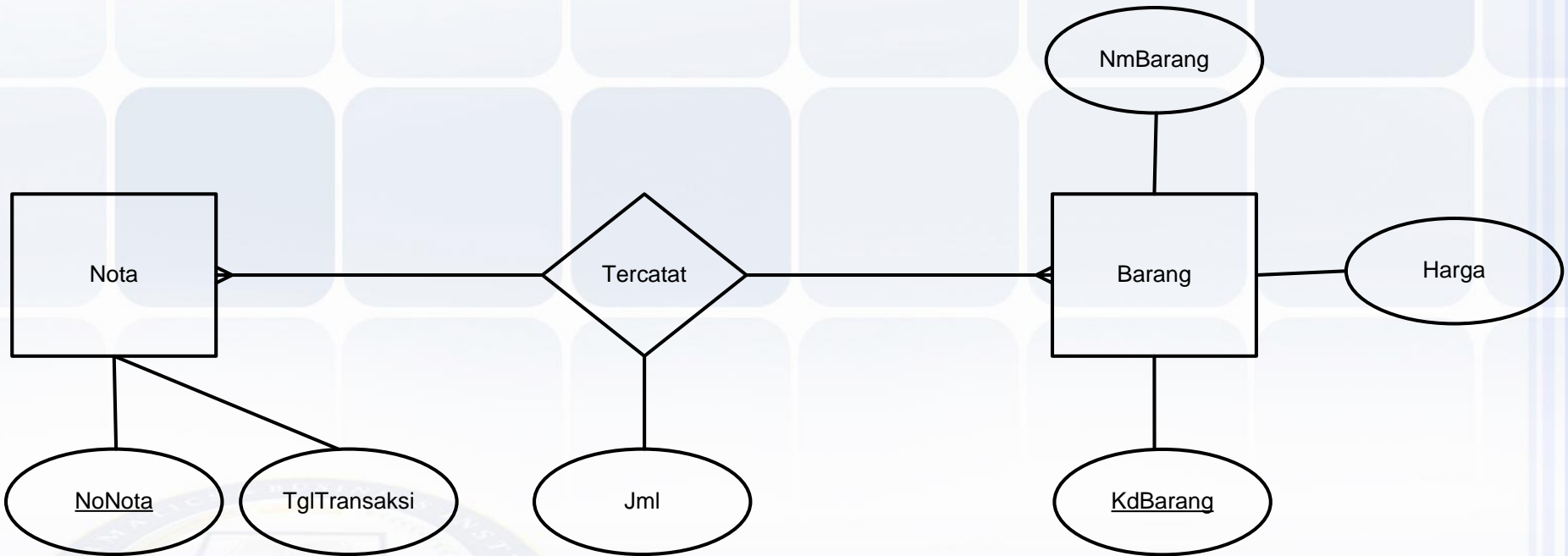
Model *Entity-Relationship*

Atribut Kunci Tunggal dan Kunci Komposit



Model *Entity-Relationship*

Atribut Relasional




atribut relasional

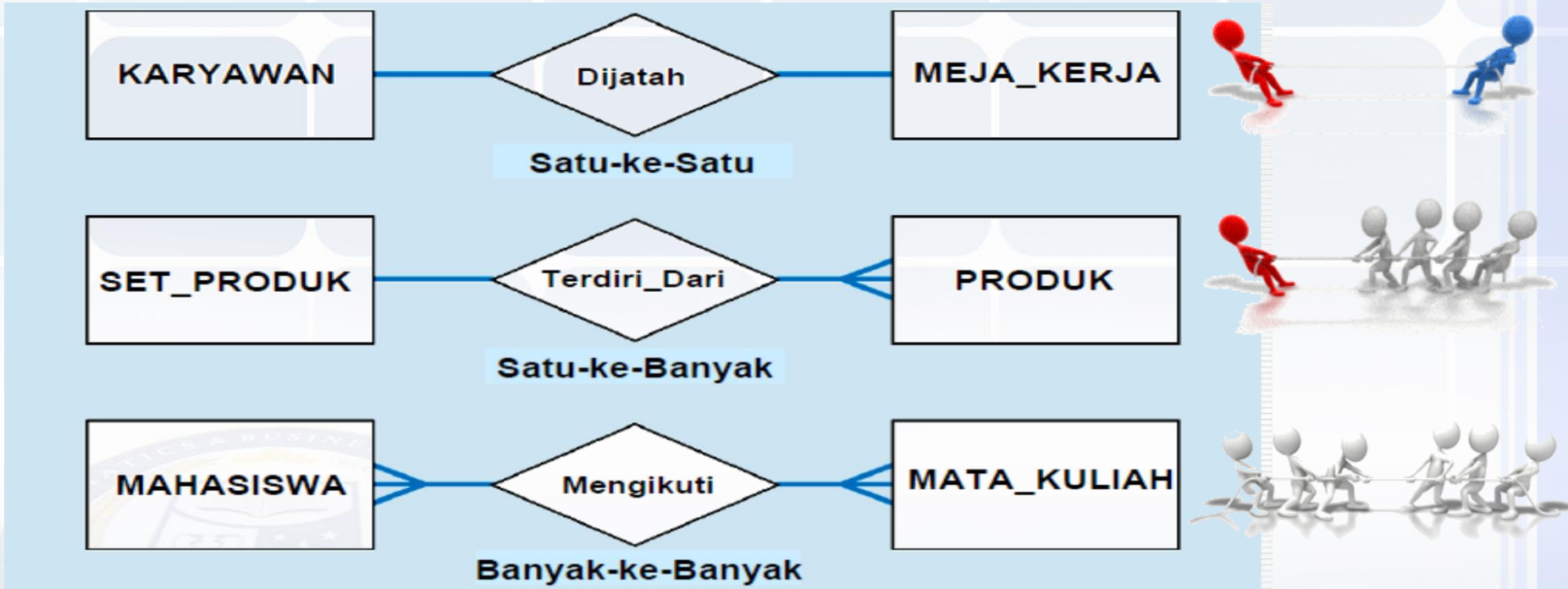
Model *Entity-Relationship*

Derajat Relasional



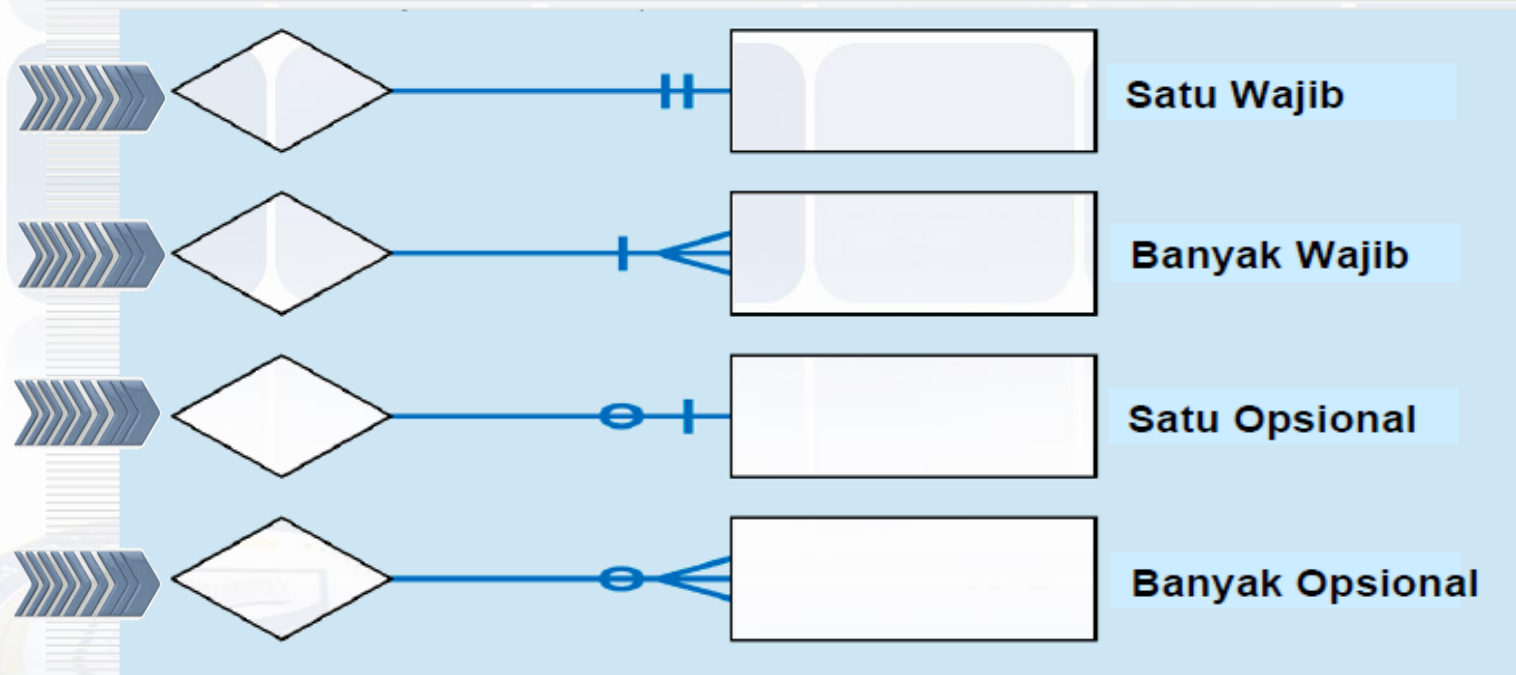
Model *Entity-Relationship*

Kardinalitas Relasional



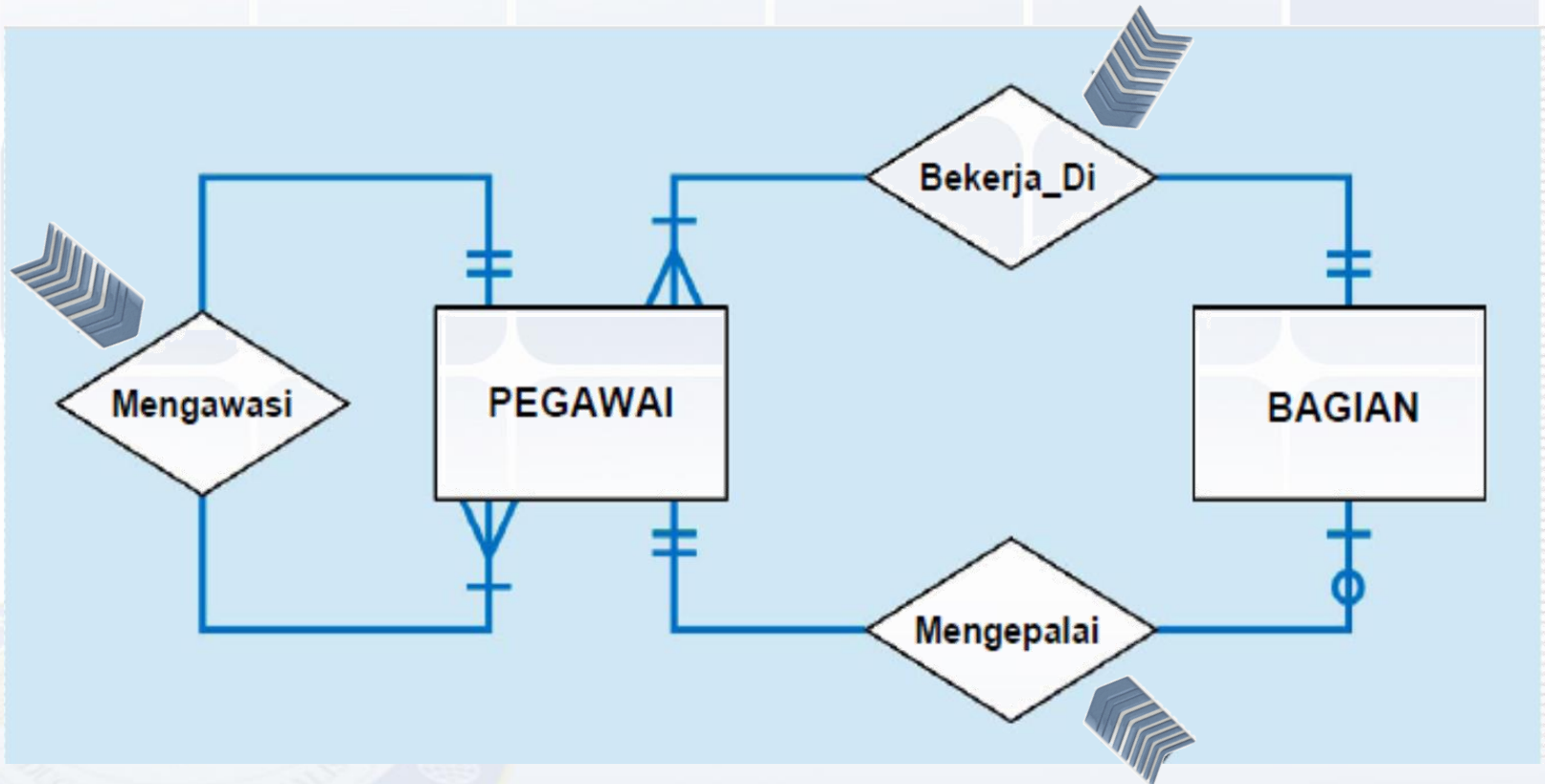
Model *Entity-Relationship*

Notasi Konstrain Relasional



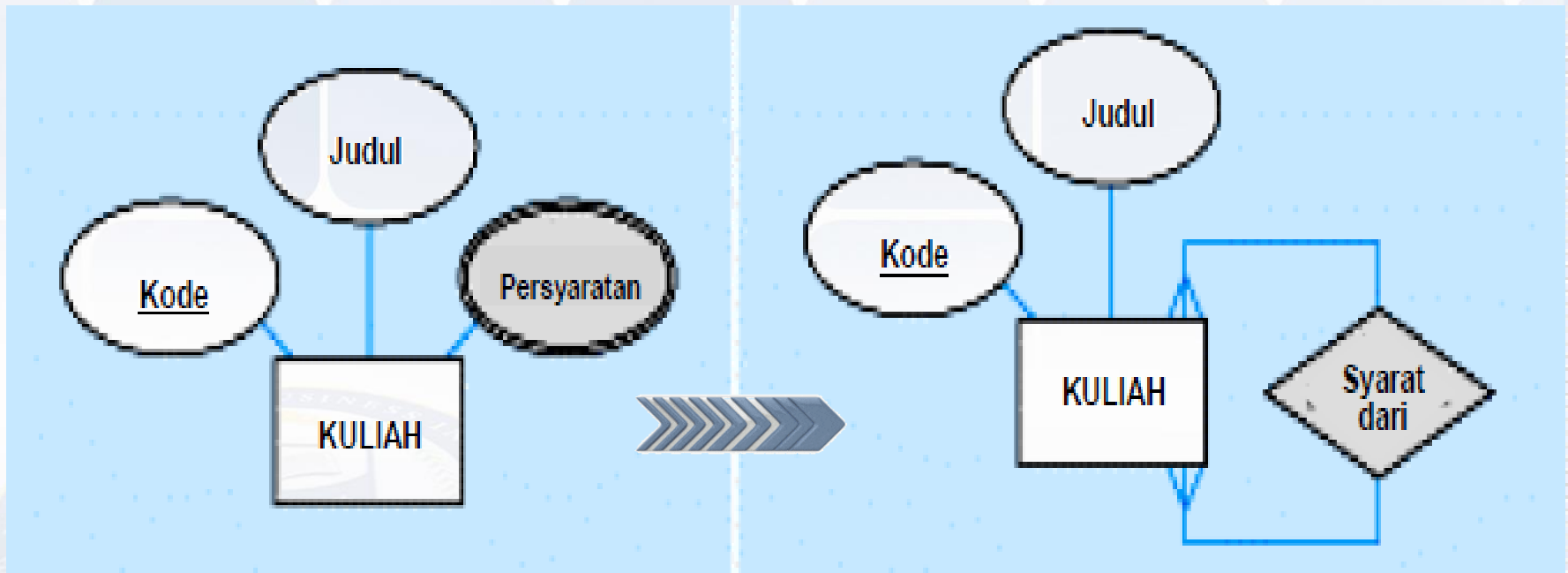
Model *Entity-Relationship*

Relasional Majemuk



Model *Entity-Relationship*

Transformasi Atribut *Multivalued* ke Relasional



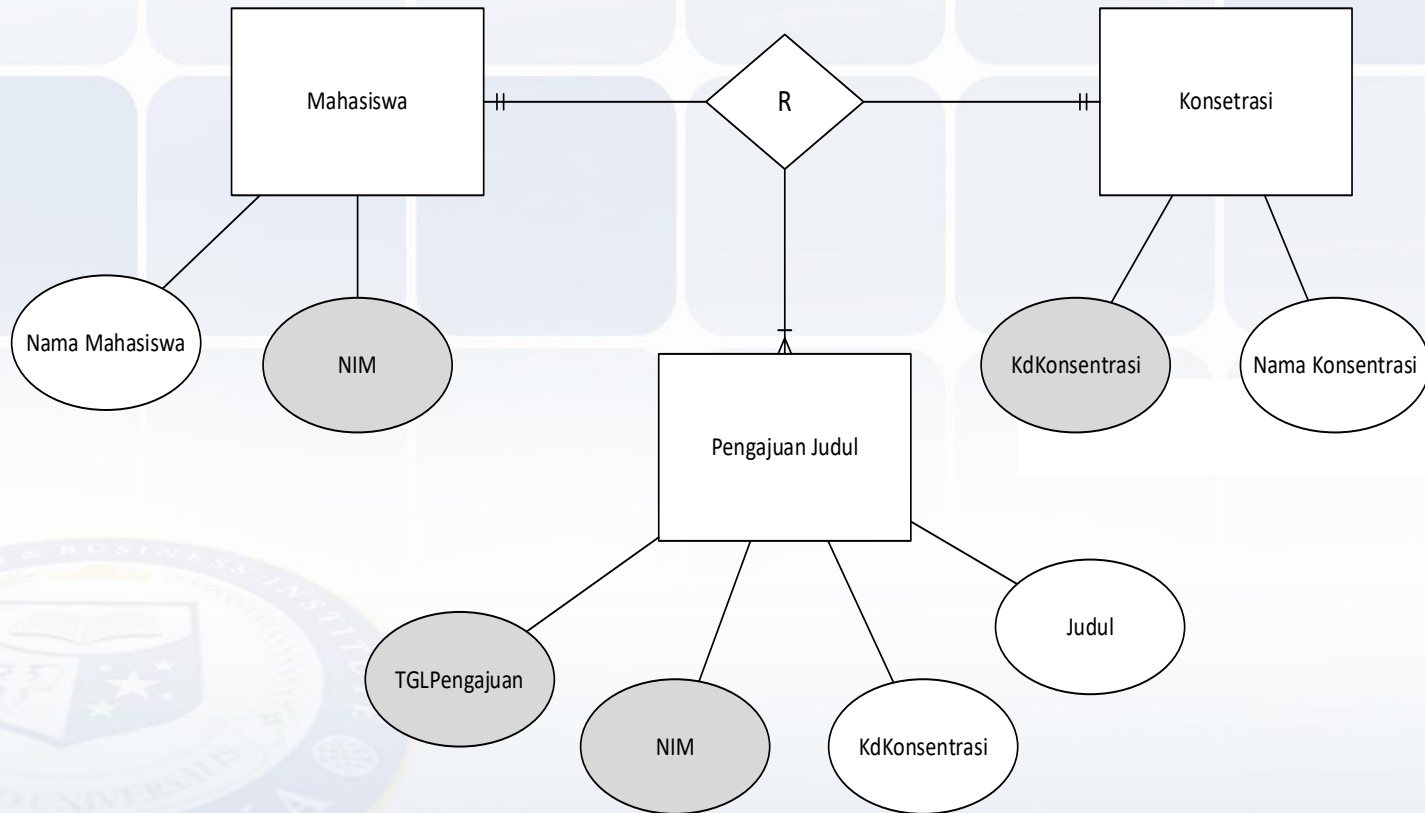
Studi Kasus

- Contoh dokumen I/O pada *existing system*:

FORM PENGAJUAN JUDUL TESIS	
Tanggal Pengajuan Judul	: ../ ../
NIM	:
Nama Mahasiswa	:
Konsentrasi	: <input type="checkbox"/> IT Governance <input type="checkbox"/> Data Science <input type="checkbox"/> Intelligent System
Judul Tesis Yang Diajukan	:

Penyelesaian

➤ Contoh *Enterprise Data Model*:



Studi Kasus

- Contoh dokumen I/O pada *existing system*:

HASIL VERIFIKASI AJUAN JUDUL TESIS

Tanggal Verifikasi: ../ ../

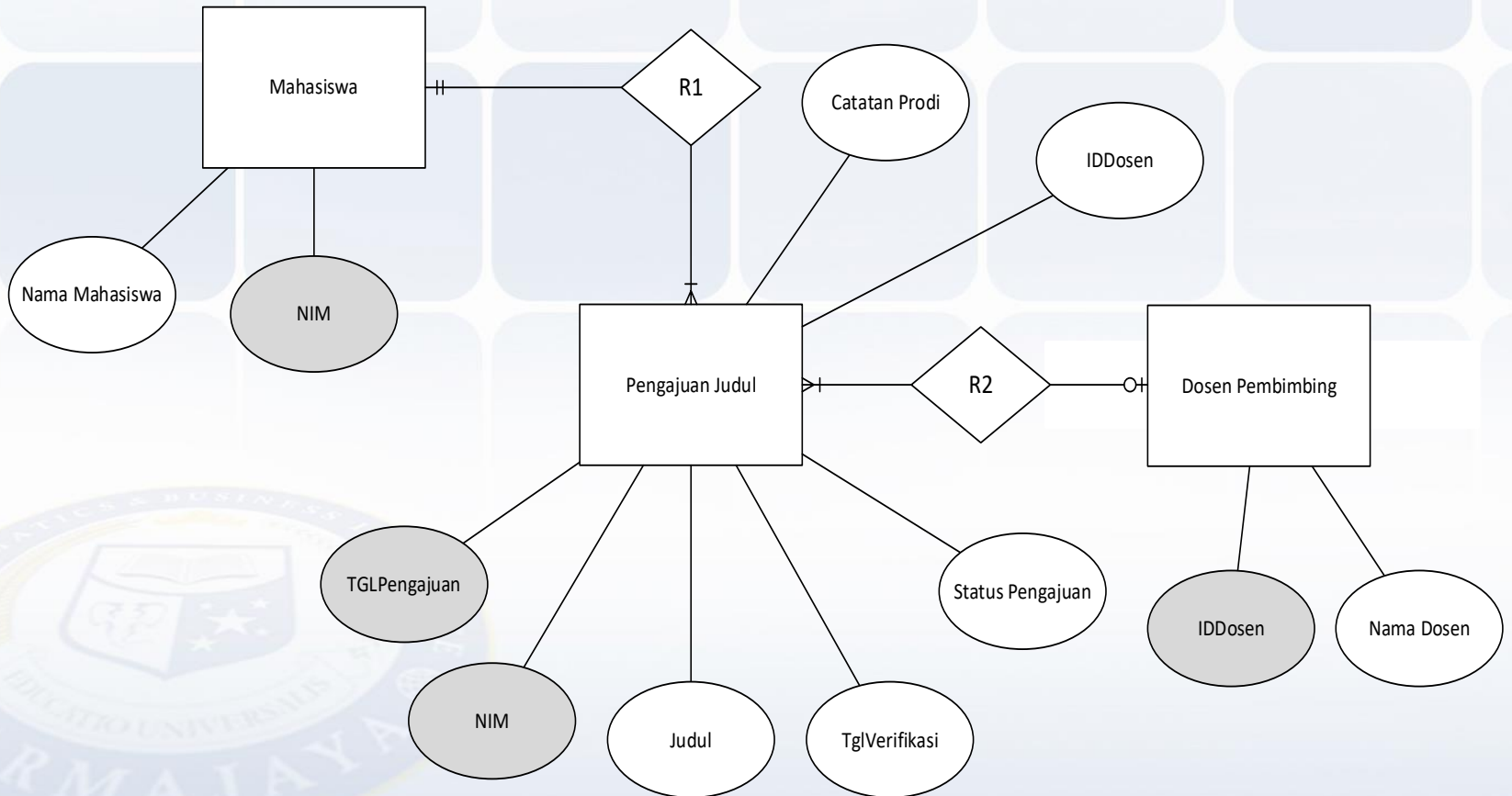
No	NIM	Nama Mahasiswa	Judul Yang Diajukan	Tanggal Pengajuan	Status Ajuan	Catatan Prodi	Dosen Pembimbing

Catatan: - Status Pengajuan (Ditolak/Diterima)

- Pembimbing diberikan jika status pengajuan diterima

Penyelesaian

➤ Contoh *Enterprise Data Model*:



THANK YOU

Sampai jumpa di sesi berikutnya

