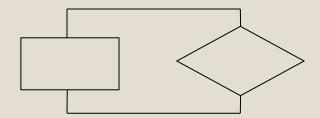


→ UNARY RELATIONSHIP

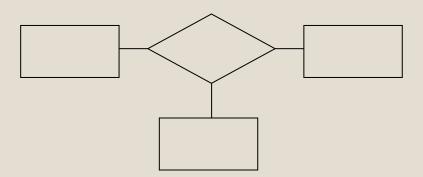
(HANYA ME-RELASIKAN 1 ENTITAS)

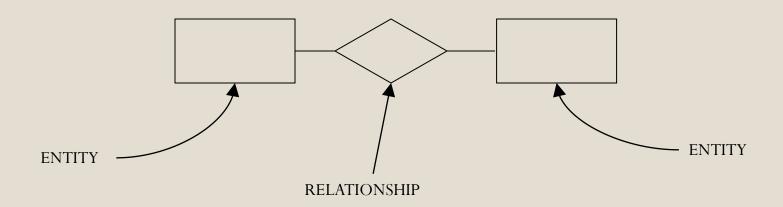


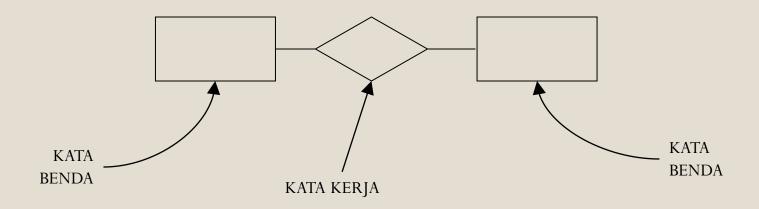
→ BINARY RELATIONSHIP (HANYA ME-RELASIKAN 2 ENTITAS)

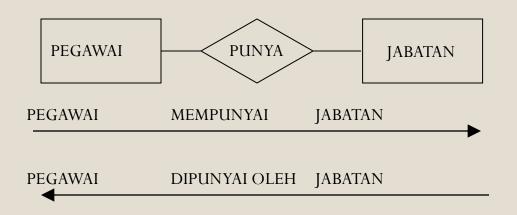


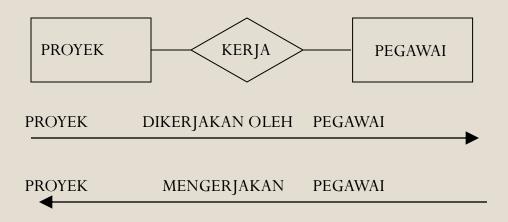
→ N-ARY RELATIONSHIP
(ME-RELASIKAN 3 ENTITAS)



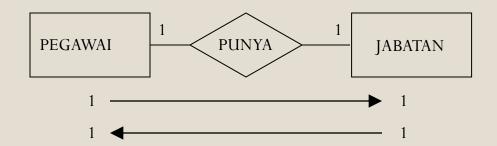


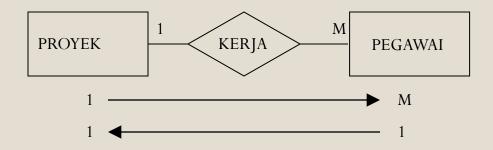


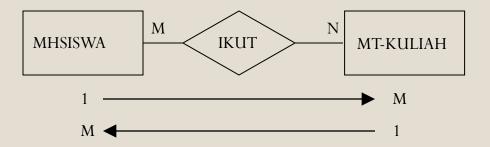


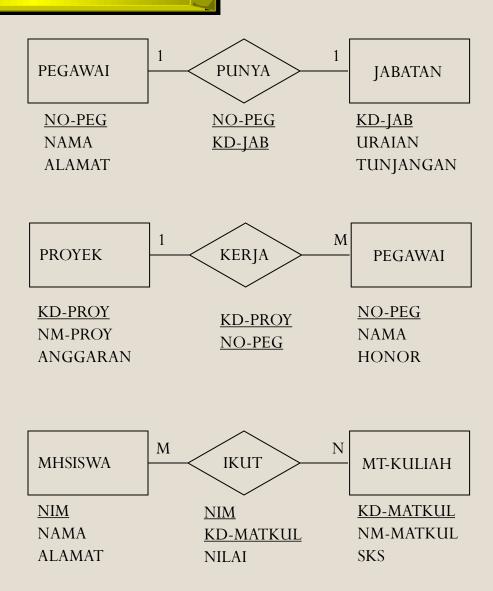




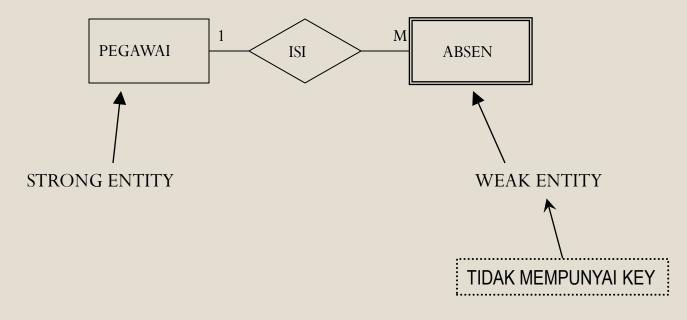


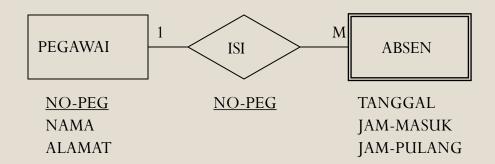


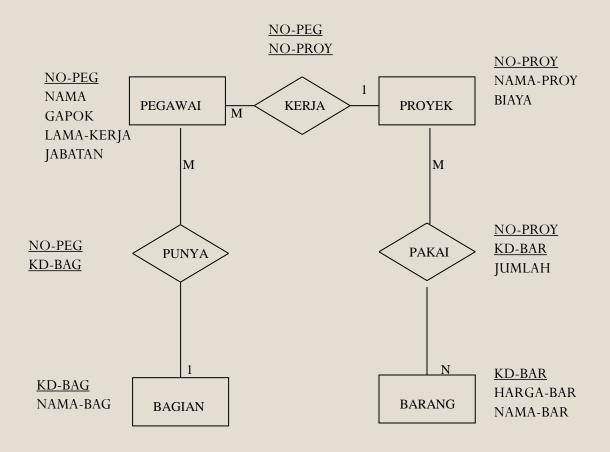


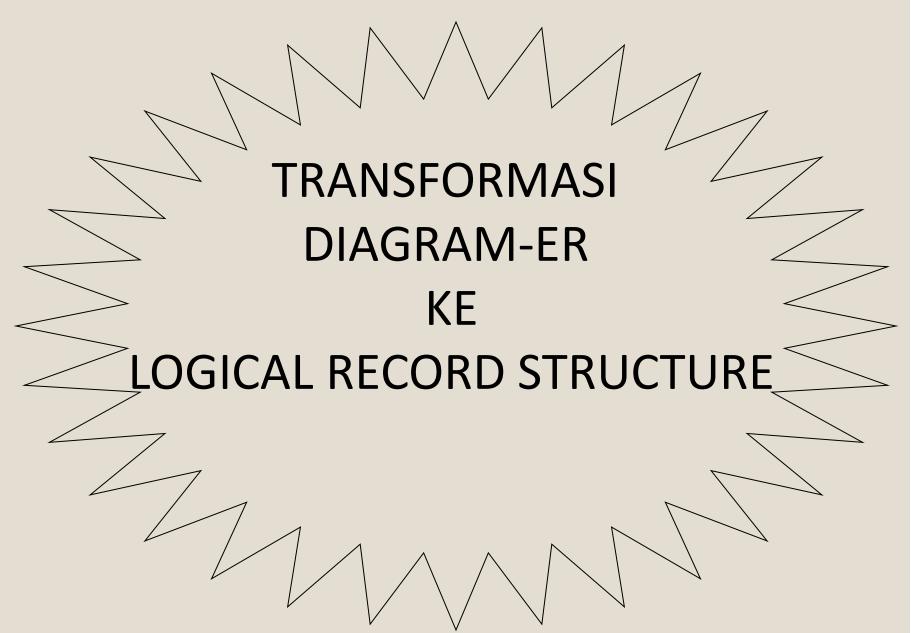


#### → JENIS ENTITY









#### □ PEDOMAN

#### TRANSFORMASI D-ER KE LRS

SETIAP ENTITY AKAN DIUBAH KEBENTUK SEBUAH KOTAK DENGAN NAMA ENTITY BERADA DILUAR KOTAK DAN ATTIBUTE BERADA DI DALAM KOTAK



SEBUAH RELATIONSHIP <u>KADANG DISATUKAN</u> DALAM SEBUAH KOTAK BERSAMA ENTITY, <u>KADANG DIPISAH</u> MENJADI SEBUAH KOTAK TERSENDIRI

#### □ PERHATIKAN!

□ CARDINALITY (TINGKAT HUBUNGAN)

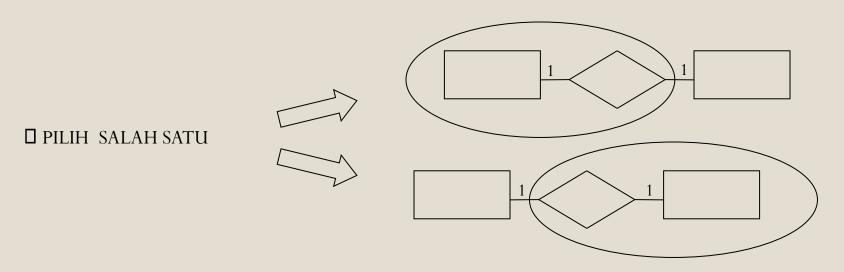
□ 1:1 ONE-TO-ONE

 $\square$  **1: M** ONE-TO-MANY

 $\square$  **M:N** MANY-TO-MANY

☐ SANGAT BERPENGARUH PADA TRANSFORMASI

#### ☐ TRANSFORMASI 1:1 ONE-TO-ONE

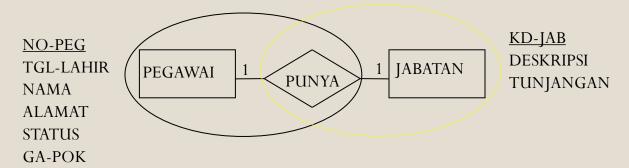


- ☐ PEDOMAN PENGGABUNGAN
  - ☐ KEARAHWEAK ENTITY
  - ☐ KE ENTITYYANG MEMBUTUHKAN REFERENSI

#### ATAU

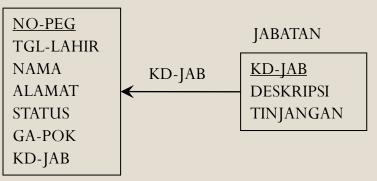
☐ KE ENTITY DENGAN JUMLAH ATRIBUTYANG LEBIH SEDIKIT

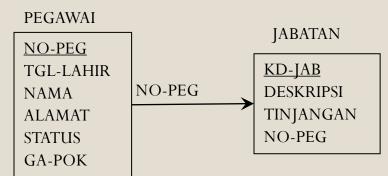
#### ☐ TRANSFORMASI 1:1 ONE-TO-ONE





#### **PEGAWAI**

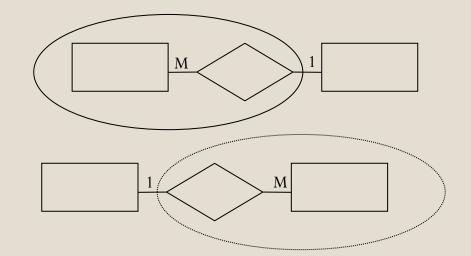




#### ☐ TRANSFORMASI 1:M ONE-TO-MANY

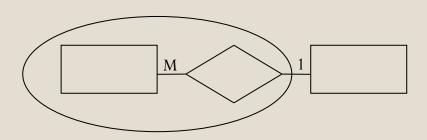
☐ SELALU KE ARAH MANY



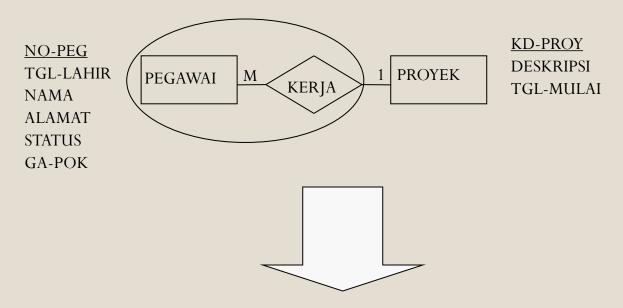


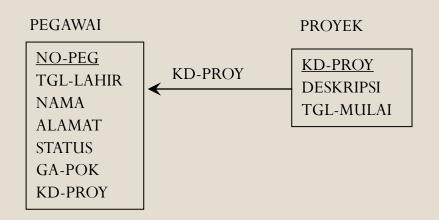
#### ☐ PEDOMAN PENGGABUNGAN

- ☐ TIDAK PERLU MELIHAT JUMLAH ATRIBUTYANG LEBIH SEDIKIT
- ☐ SELALU DIGABUNG KE ARAH MANY



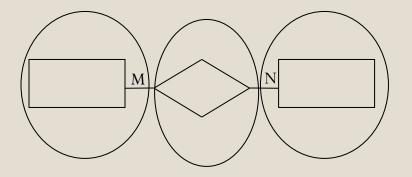
#### ☐ TRANSFORMASI 1:M ONE-TO-MANY





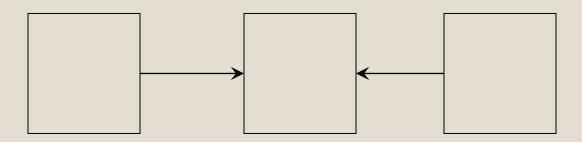
#### ☐ TRANSFORMASI M:N MANY-TO-MANY

#### ☐ RELATIONSHIP BERDIRI SENDIRI

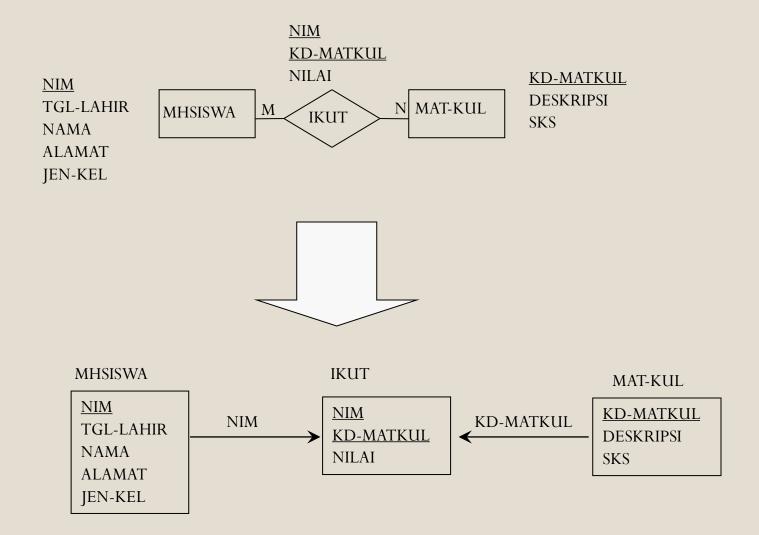


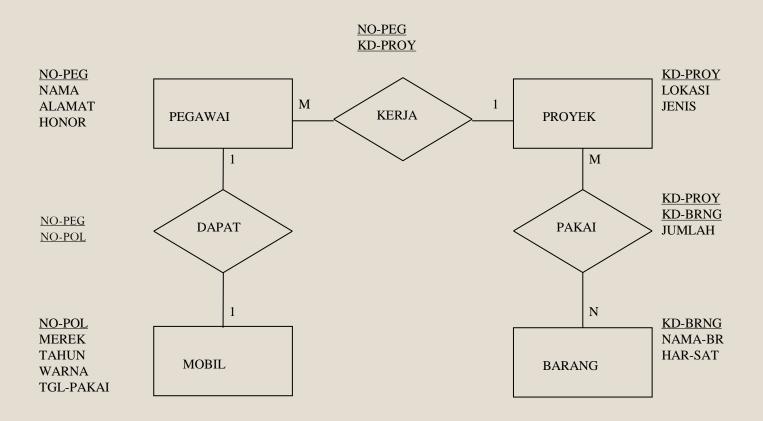
#### ☐ PEDOMANTRANSFORMASI

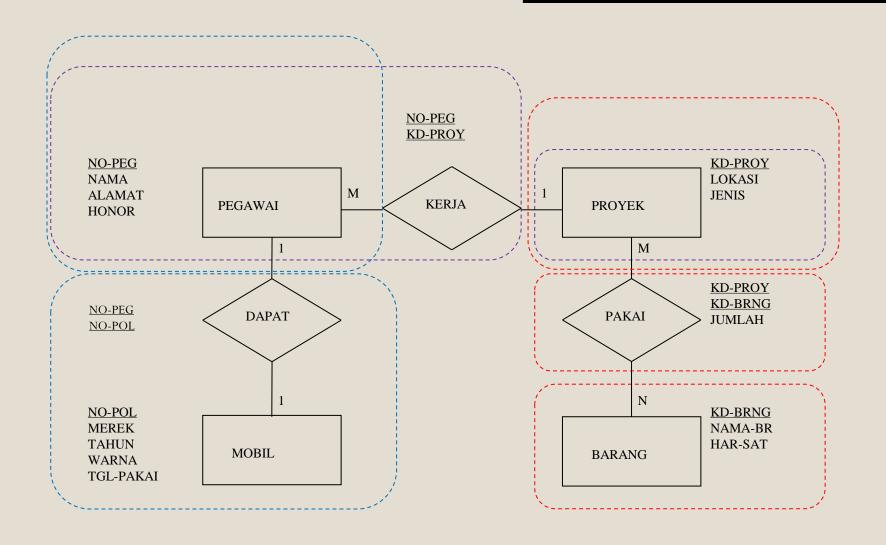
- ☐ TIAP ENTITY MENJADI SEBUAH LOGICAL RECORD STRUCTURE
- ☐ RELATIONSHIP JUGA MENJADI SEBUAH LOGICAL RECORD STRUCTURE

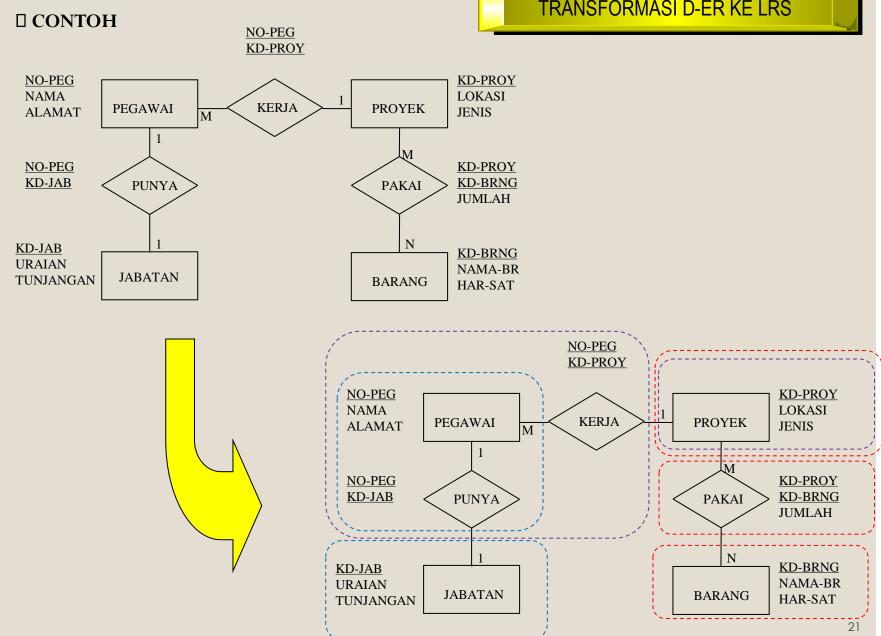


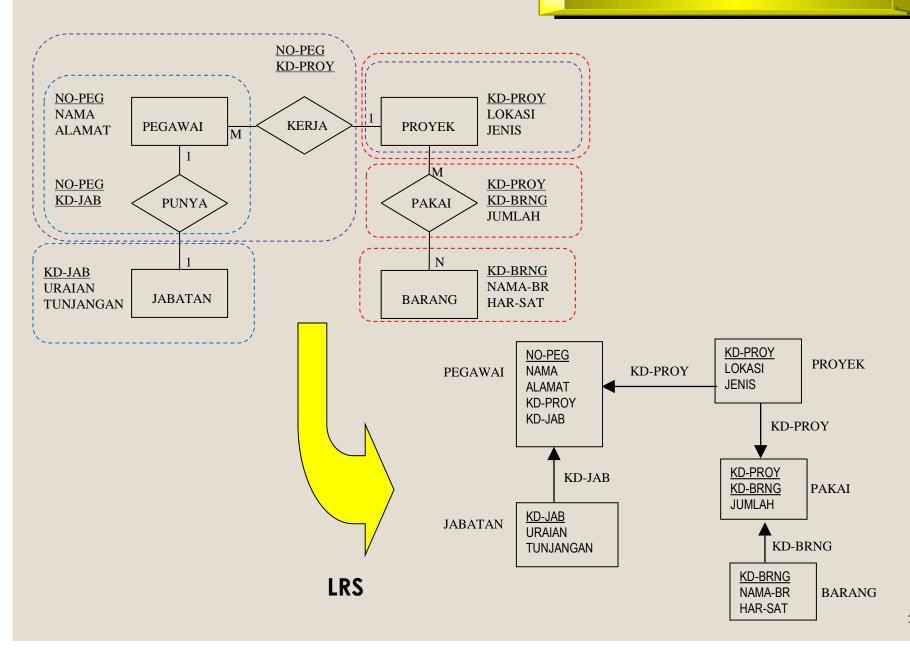
#### □ TRANSFORMASI M :N MANY-TO-MANY

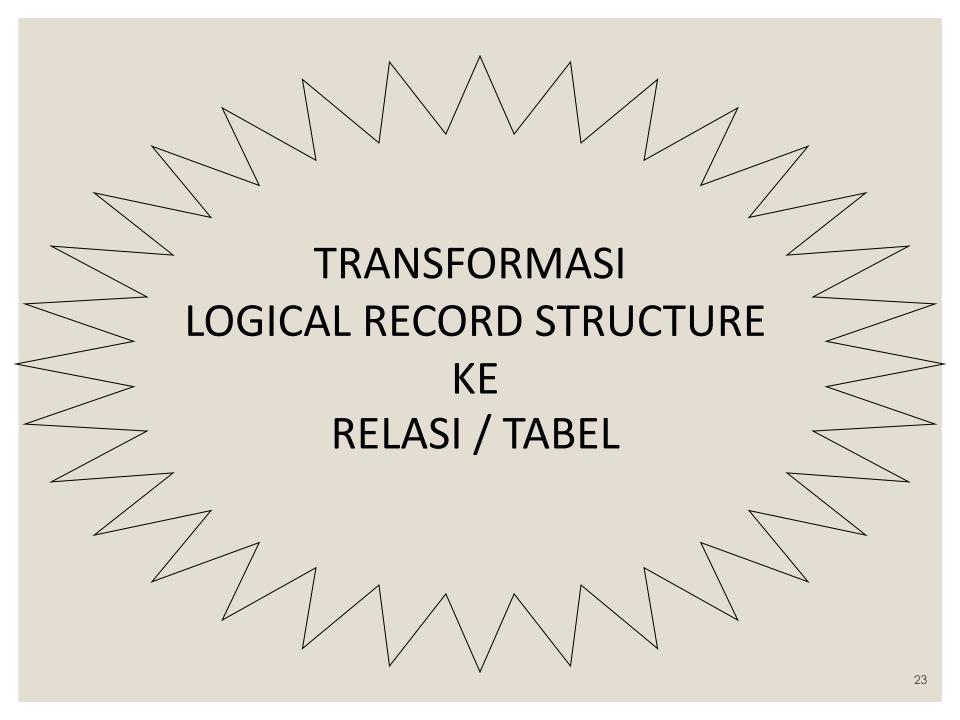












#### ATURANTRANSFORMASI LRS KE RELASI/TABEL

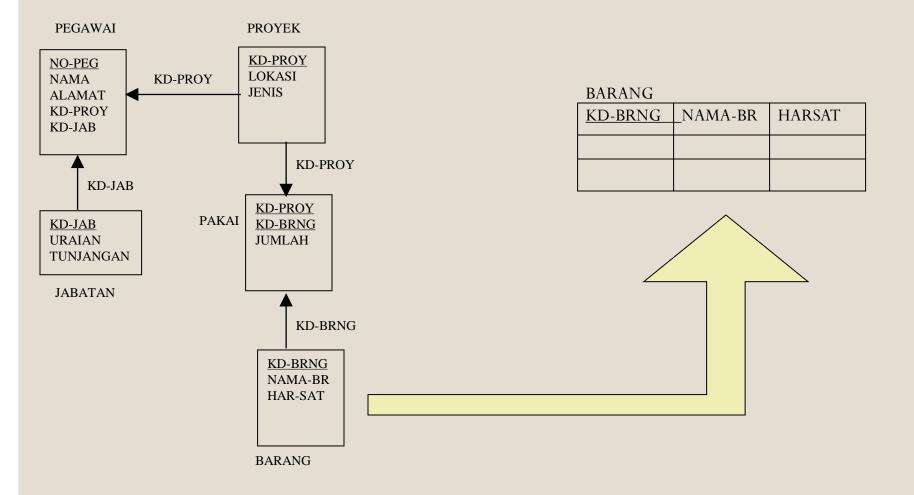


♦TIAP SATU LRS AKAN MENJADI SATUTABEL

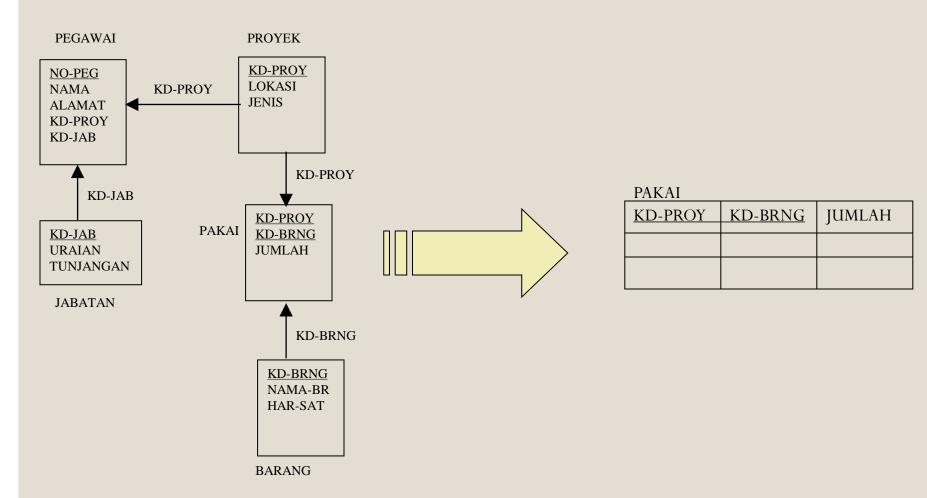
# MAHASISWA NIM NAMA ALAMAT TEMPAT-LAHIR TGL-LAHIR J-KELAMIN

- ♦ NAMA LRS MENJADI NAMA TABEL
- ♦ TIAP 1 (SATU) ATRIBUT AKAN MENJADI 1 (SATU) KOLOM
- ♦ NAMA ATRIBUT AKAN MENJADI NAMA KOLOM

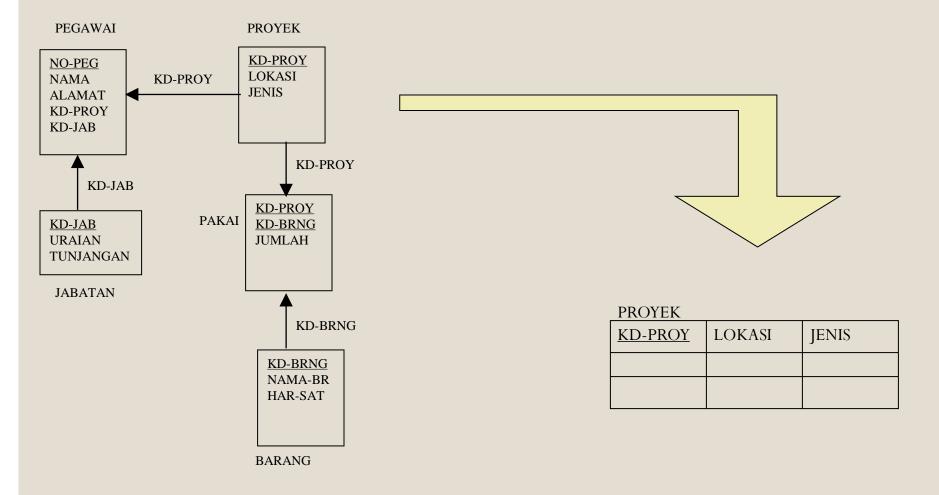
#### □ CONTOH



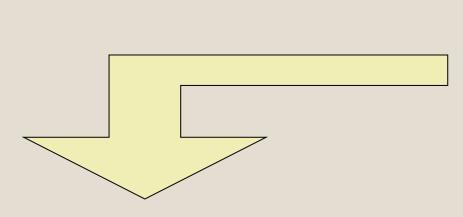
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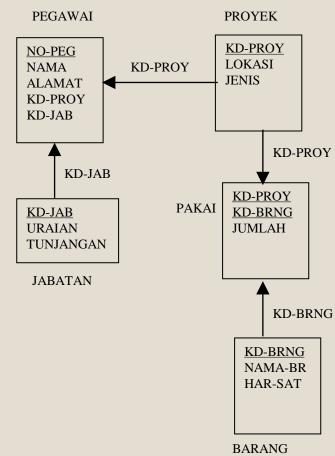
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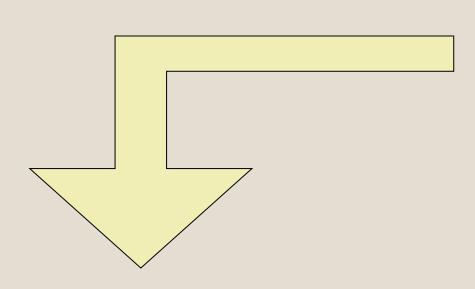
#### □ CONTOH



# JABATAN KD-JAB URAIAN TUNJANGAN

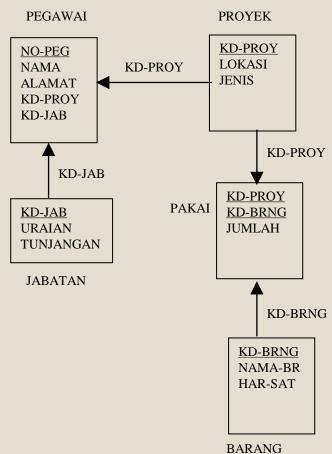


#### □ CONTOH

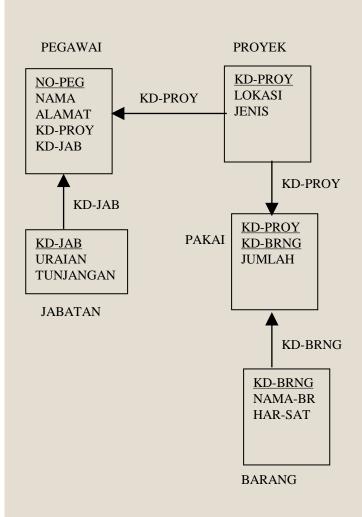


### PEGAWAI

NO-PEG	NAMA	ALAMAT	KD-PROY K	D-JAB



#### □ CONTOH



#### PEGAWAI

NO-PEG	NAMA	ALAMAT	KD-PROY K	D-JAB

#### **PROYEK**

KD-PROY	LOKASI	JENIS

#### **PAKAI**

KD-PROY	KD-BRNG	JUMLAH

#### BARANG

KD-BRNG	_NAMA-BR	HARSAT

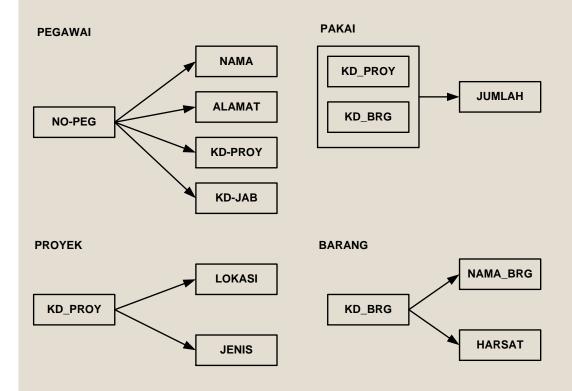
#### **JABATAN**

KD-JAB	URAIAN	TUNJANGAN

PEGAWAI								
NO-PEG	NAMA	ALAMAT	KD-PROY KD	-JAB	TRA	NSFORMAS	SI LRS KE F	RELASI
								-
PROYEK				PEGAWAI	Г	Т	1	
KD-PROY	LOKASI	JENIS		NO-PEG	NAMA	ALAMAT	KD-PROY	D-JAB
				PK				
PAKAI				PROYEK				
KD-PROY	KD-BRNG	JUMLAH		KD-PROY	LOKASI	JENIS		
				PK				
								RA LAIN
BARANG			I	PAKAI				NA LAIN
KD-BRNG	NAMA-BR	HARSAT		KD-PROY	KD-BRNG	JUMLAH	]∥MENU	NJUKKAN
				FI	K		1	
							]∥ PRIM	IARY KEY
JABATAN				BARANG			_	
KD-JAB	URAIAN	TUNJANGA	N	KD-BRNG_	NAMA-BR	HARSAT		
		3		PK			-	
				JABATAN			1	
				KD-JAB	URAIAN	TUNJANGA	AN	
				PK				
								31

# NORMALISASI

#### (FUNCTIONAL DEPENDENCY DIAGRAM)



# SPESIFIKASI BASIS DATA

Nama File : Proyek

Isi : Data Proyek yang dimiliki perusahaan

Primary key : KD\_PROY

No	Nama Field	Jenis	Lebar	Desimal	Keterangan
1	KD_PROY	Char	4		Kode Proyek
2	JENIS	Char	15		Jenis Proyek
3	LOKASI	Char	20		Lokasi Proyek

## LATIHAN

Dari ERD Berobat di Dokter Umum pada pertemuan sebelumnya lanjutkanlah kepada **LOGICAL RECORD STRUCTURE.**