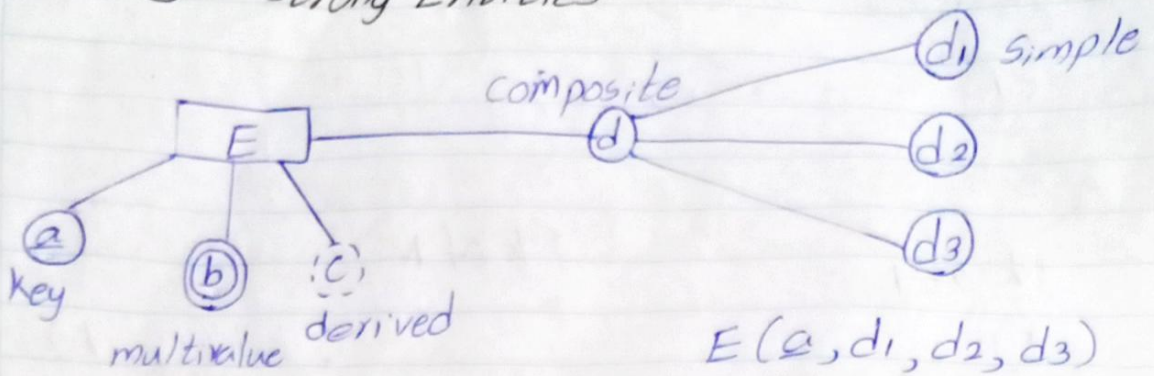
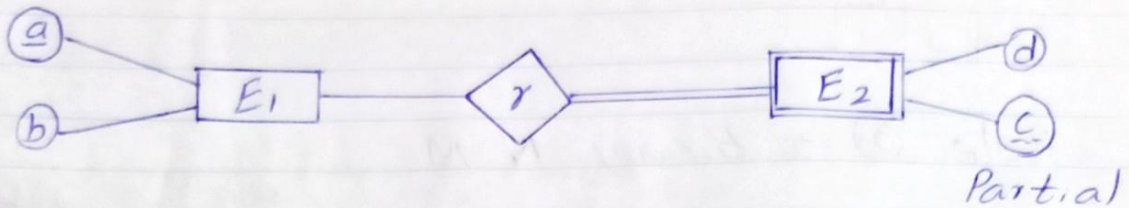


Rule (01) - Strong Entities



Rule (02) - Weak Entity

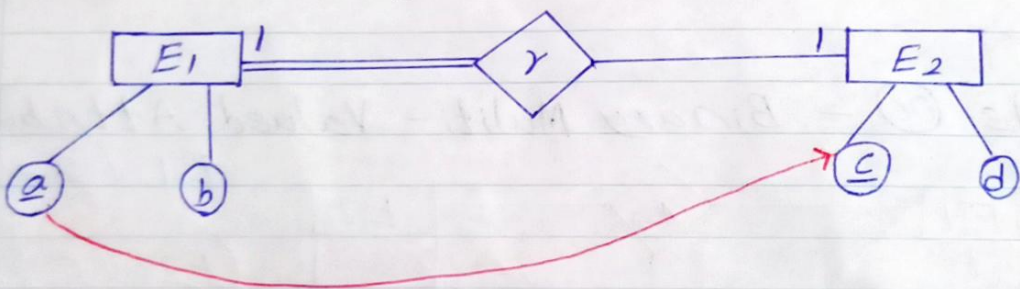


- * Strong Entity has a primary key.
- * Weak Entity has a partial key.

$E_1(a, b)$

$E_2(a, d, c)$

Rule (03) - Binary 1:1



$E_1(a, b)$

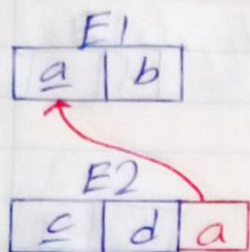
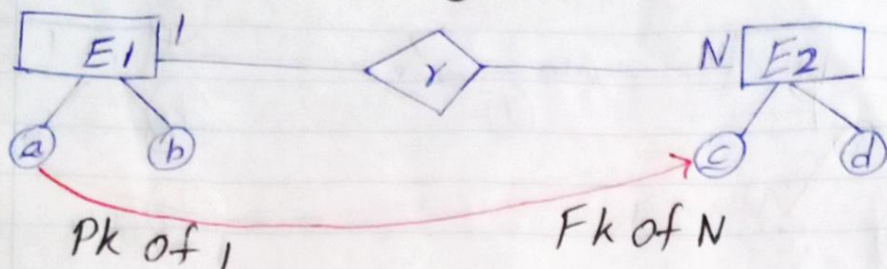
$E_2(c, d, a)$

$E_1 E_2(a, c)$

Pk of the Table

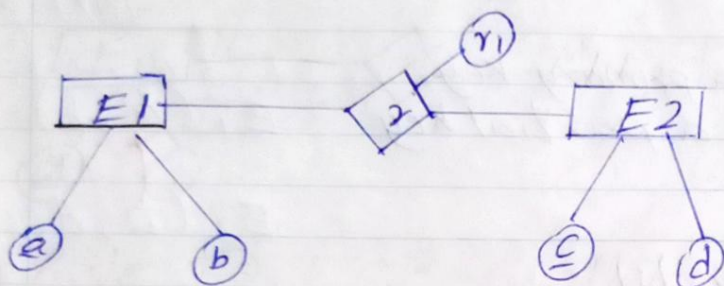
Partial side as a Fk

Rule ① - Binary 1:N



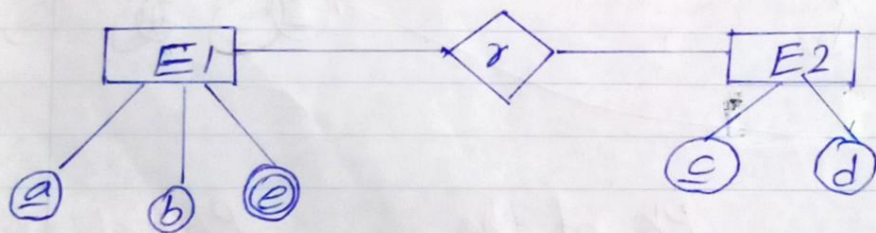
$E1(a, b)$
 $E2(c, d, a)$

Rule ② - Binary N:M



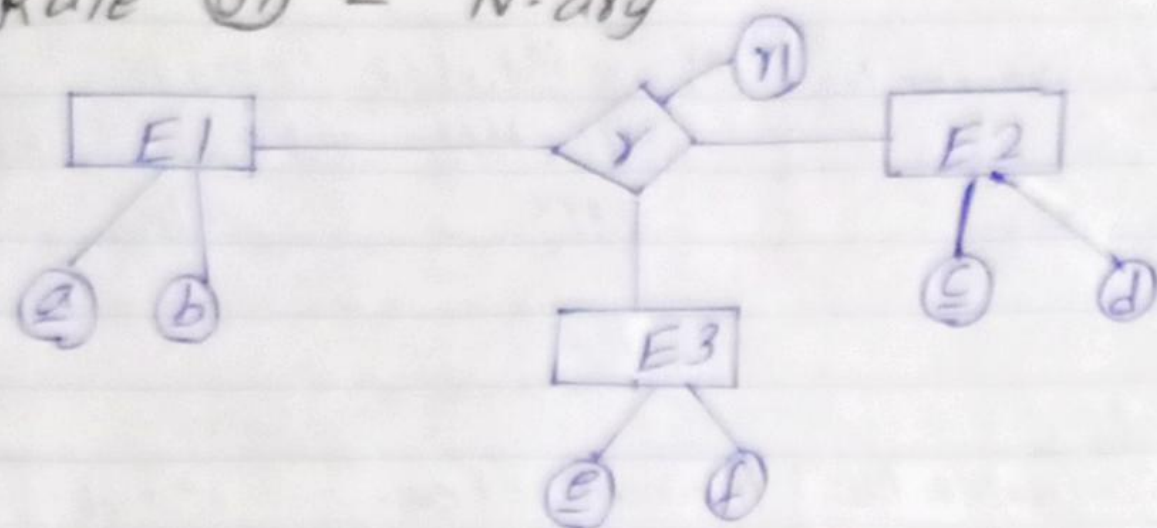
$E1(a, b)$
 $E2(c, d)$
 $E1-E2(\underline{a}, \underline{c}, r_1)$
 composite primary key

Rule ③ - Binary Multi-Valued Attributes



$E1(a, b)$
 $E2(c, d)$
 $E1-e(a, e)$

Rule (07) - N-ary



$E1(a, b)$
 $E2(c, d)$
 $E3(e, f)$
 $r(a, c, e, x)$

Q. Program (P-ID, Name, CP, YC)

Course (C-ID, Name, CP, YC, P-ID, Year, Sem)

Student (S-ID, GN, SN, DOB, YE, PID)

St-Course (C-ID, SID, Year, Sem, Mark, Grade)