

CS & DA



Database Management System

ER model & Integrity Constraints

DPP 01 (Discussion Notes)



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#Q. ER model is

SQL -

- ☒ **A** Physical design *disk*
- ☒ **C** Conceptual design

- ☒ **B** Logical design *Implement using codes*
- ☐ **D** None of the above

#Q. Consider the following tables T1 and T2.

In table T1 P is the primary key and Q is the foreign key referencing R in table T2 with on-delete cascade and on-update cascade. In table T2, R is the primary key and S is the foreign key referencing P in table T1 with on-delete set NULL and on-update cascade. In order to delete record (3,8) from the table T1, the number of additional records that need to be deleted from table T1 is 0.

T1		T2	
<u>P</u>	Q	<u>R</u>	S
2	2	2	2
<u>3</u>	<u>8</u>	8	3 NULL
7	3	3	2
5	8	9	7
6	9	5	7
8	5	7	2
9	8		

#Q. Consider a relational table $R(A, B)$ as given below. A is the primary key of relation R and B is the foreign key referring to primary key A of relation R with on delete cascade. If we delete tuple (2, 3) from relation R, then total number of tuples (including (2, 3)) deleted from R to preserve referential integrity is _____

<u>A</u>	B
5	8
3	2
8	7
1	4
2	3
6	3
7	9
9	5
4	3

5

#Q. Which of the following is/are true for an ER model?

partial

1 row

☒ **A** Weak entity must have total participation in identifying relation.

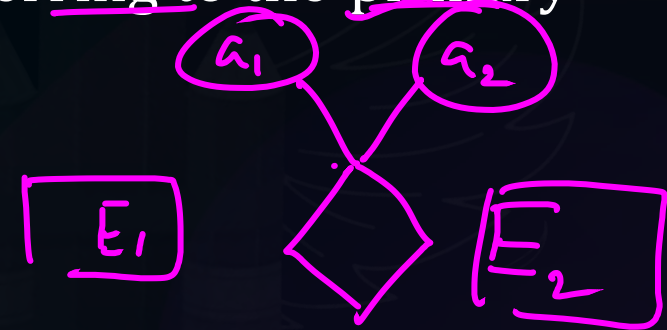
☒ **B** Entity corresponding to 1 side will include foreign key referring to the primary key of many side entity.

☒ **C** Descriptive attributes are associated with entity.

foreign

Relationship

☒ **D** Minimum cardinality of '1' specifies total participation.

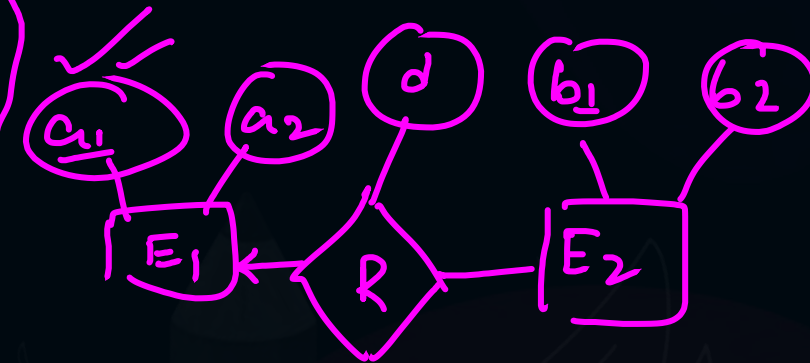
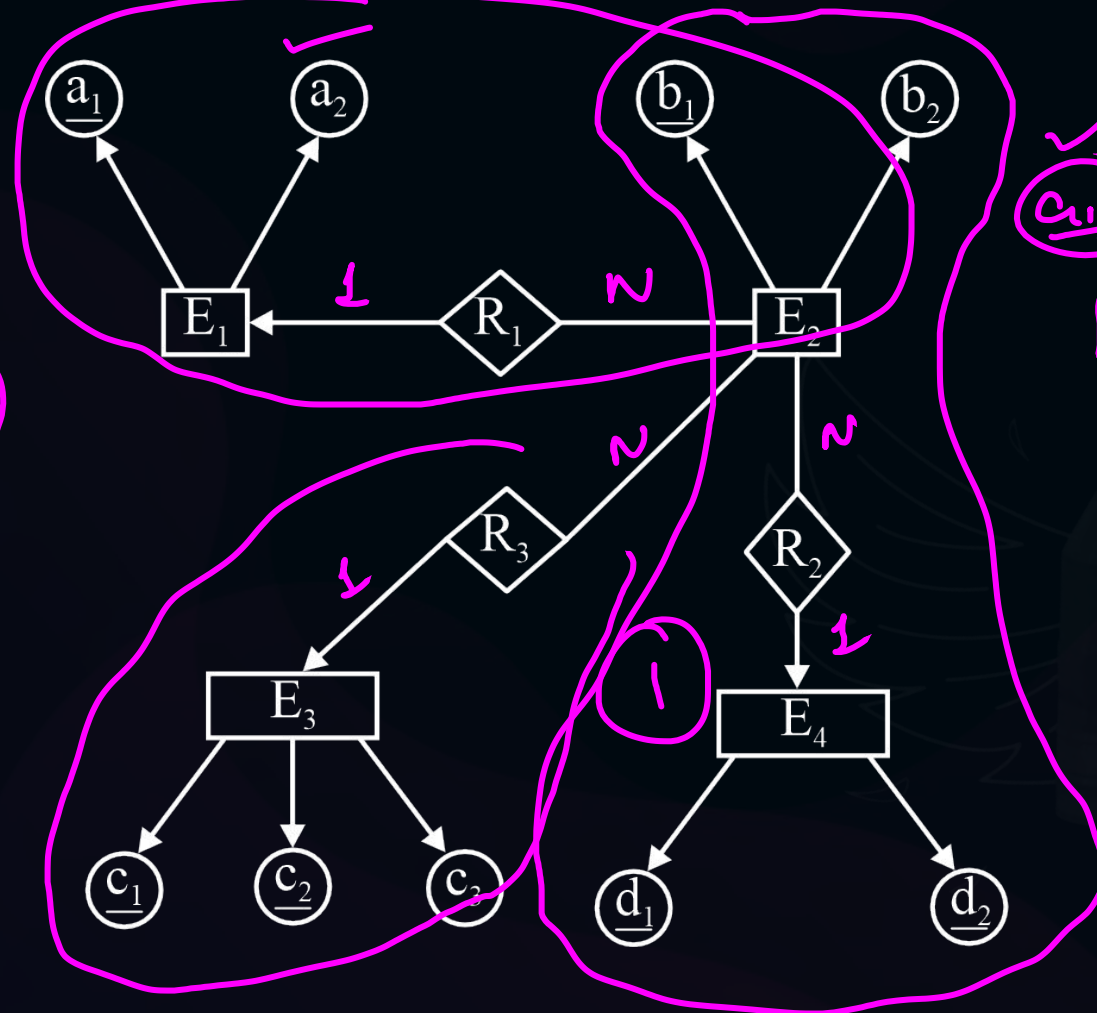


#Q. Minimum number of tables required to convert the ER diagram into relational model is ____.

$$1 + 1 = 2$$

$E_4 (d_1, d_2) \times$
 $E_2 (b_1, b_2, d_1, d_2)$

$$2 + 1 = 3$$



2 tables

$E_1 (a_1, a_2)$
 $E_2 (b_1, b_2, d_1, d_2)$



THANK - YOU

