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Database question 4

a)

SELECT 'Attribute' AS Type, column\_name AS Name

FROM information\_schema.columns

WHERE table\_name IN ('person', 'apartment', 'company')

UNION ALL

SELECT 'Entity' AS Type, table\_name AS Name

FROM information\_schema.tables

WHERE table\_name IN ('person', 'apartment', 'company')

UNION ALL

SELECT 'Relationship' AS Type, CONSTRAINT\_name AS Name

FROM information\_schema.table\_constraints

WHERE constraint\_type = 'FOREIGN KEY' AND table\_name IN ('person', 'apartment', 'company');

b)

SELECT DISTINCT

column\_name AS Leaf

FROM

information\_schema.columns

WHERE

table\_name = 'apartment'

AND column\_name IN ('suite', 'streetnumber', 'streetname', 'city')

AND column\_name NOT IN (

SELECT

DISTINCT column\_name

FROM

information\_schema.columns

WHERE

table\_name = 'apartment'

AND column\_name IN ('suite', 'streetnumber', 'streetname', 'city')

AND ordinal\_position < ALL (

SELECT

ordinal\_position

FROM

information\_schema.columns

WHERE

table\_name = 'apartment'

AND column\_name IN ('suite', 'streetnumber', 'streetname', 'city')

)

);

c) SELECT

'Person' AS "Entity Type",

'N' AS "Cardinality",

'mandatory' AS "Participation",

'resident' AS "Role name"

UNION

SELECT

'Apartment' AS "Entity Type",

'1' AS "Cardinality",

'optional' AS "Participation",

'residence' AS "Role name";