Given,

a1 ---- a2, a3, a4, a5, a6, a7, a8, a9, a10, a11, l1

b1 → b2, b3, b4, a1

c1 — c2, c3, c4, n1, e1

d1 → d2, b1, c1

e1 ---- e2, e3, e4, e5, e6, e7, e8, e9, e10, e11, e12, e13, e14

e1 **→** f1

e1 **→** g1

e1 ──► h1

e1 **→** i1

j1 → j2, j3, j4, j5, j6, j7, j8, e1

k1 — k2, e1

l1 → l2, m1

m1 — m2, k1, e1

n1 — → n2, n3, m1

o1 --- o2 o3, o4, n1

p1 — → p2, p3

q1 → q2, l1

n1, q1, p1 → r1, r2, r3, r4

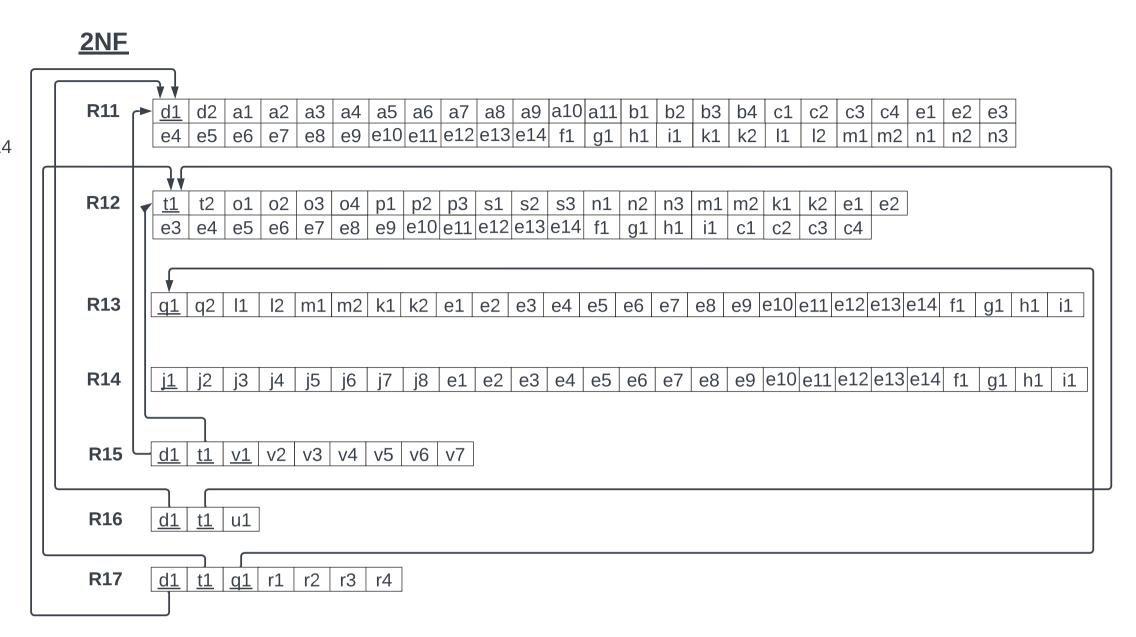
s1 → s2, s3, c1

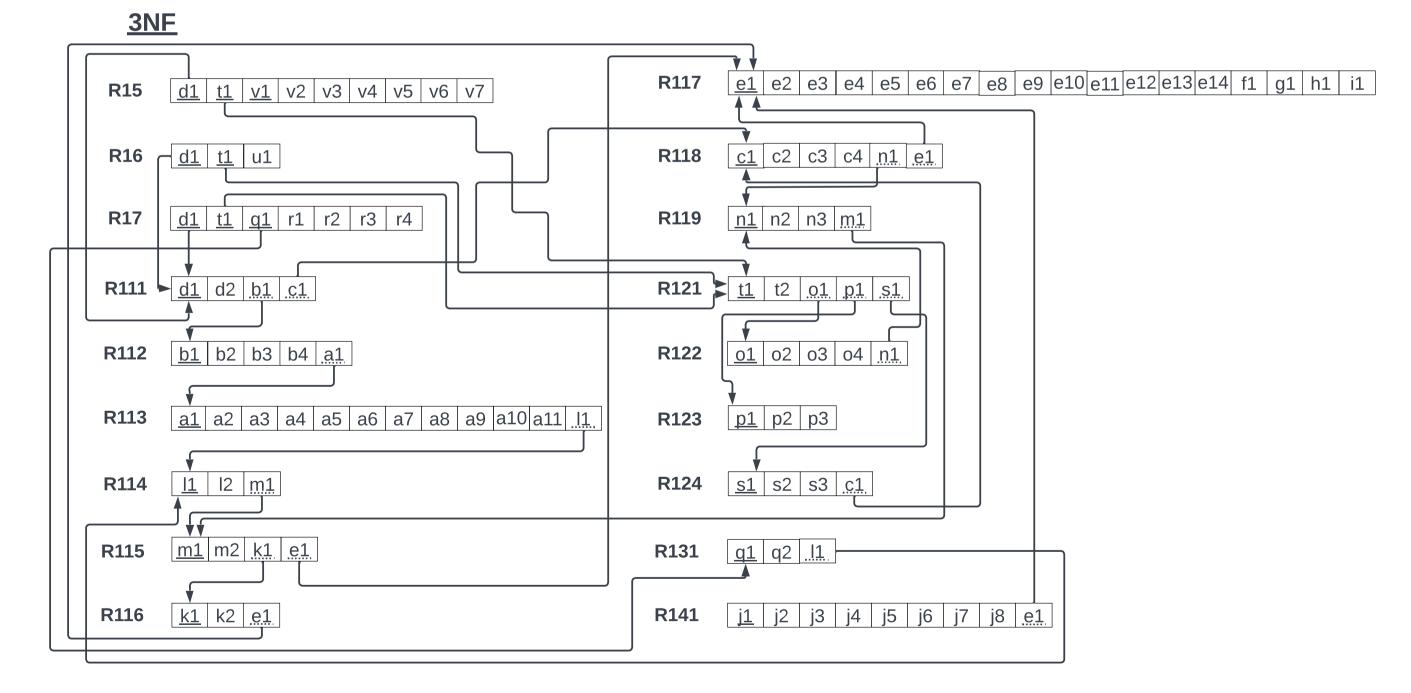
t1 → t2, p1, o1, s1

d1, t1 → u1

c1, v1 ---- v2, v3, v4, v5, v6, v7

<u>1NF</u>





BCNF

There are no relations where a non-key identifies a primary key or part of primary key. Thus all relations are in BCNF.