Assignment 5 INFO125

2. DEPENDENT is in 1NF, because of “birthday” is a partial dependency.
3. Relation R is in 1NF, because “A3” and “A4” has partial dependency.
4. PRODUCT is in 3NF, because it fulfills 2NF and has no transitive dependencies wich makes it 3NF.

DEPENDENT1: Employee\_id, Dependent\_id, Relationship. {Employee\_id, Dependent\_id} 🡪 Relationship

DEPENDENT2: Dependent\_id, Birthdate. {Dependent\_id} 🡪 Birthdate

2. R1 is in 3NF.

R2 is in 1NF

1. R2 does not fulfill 2NF because it has partial dependency {D} 🡪 {E, F}, and it does not fulfill 3NF either because it has a transitive dependency.
3. Record size = 60
4. Blocking factor = 20
5. 500 blocks
6. Unused space = 0