Steps to get to 3NF

1. Create initial relational design

2. Identify the FDs

3. Construct decomposed schema for which:

   - Natural joins do not add spurious tuples
   - All relations are in at least 3NF
   - All FDs are retained or can be reconstructed

Step #1 (Create initial relational design)

Vehicle (DocumentID(**FK**), LicenseNumber, Make, Model, VIN(**PK**))

Step #2 (Identify the FDs)

Notes:
I know that for a given CK it should determine all attributes in the relation, but is that true in this case? There can be multiple Documents associated with one Vehicle meaning, multiple DocumentIDs associated with a Vehicle.

{VIN} $\longrightarrow$ {Make, Model, LicenseNumber}
{LicenseNumber, Make, Model} $\longrightarrow$ {VIN}

Step #3 (1NF)

None of the attributes in Vehicle are set-valued $\therefore$ Vehicle is in 1NF.

Step #3 (2NF)

Given the FDs: {VIN} $\longrightarrow$ {Make, Model, LicenseNumber}, {LicenseNumber, Make, Model} $\longrightarrow$ {VIN}