

Cheat Sheet for Normalization

NF What to do

- 0 remove calculated fields^{*)} and parameters^{**)}

- 1
 - a) determine primary key (PK)
 - b) separate repeating groups
hint: PK of new group in most cases combination of key original group + key new group

- 2 separate groups whose non-key columns are not functionally dependent on the entire (*whole*) primary key
hint: groups containing only one key field are already in 2NF

- 3 separate groups whose non-key columns are functionally dependent on each other^{***)}
hint: groups containing zero or one non-key attribute are already in 3NF

^{*)} e.g. quantity * unit price = ~~total price~~

^{**)} e.g. printing date or the name of the employee that printed that particular report

^{***)} also called *transitive dependency*

Summarized in just one sentence: “the key (1NF), the whole key (2NF), and nothing but the key (3NF)”, so help me Codd (inventor of the relational model for databases)