DBMS

1NF

* A table should have atomicity, i.e., values in the table should not be further divisible.
* A single cell should not hold multiple values.

2NF

* A table is in 2NF if it is in 1NF and should not have partial dependency
* Or in other words, all non-key attributes should depend on a key attribute .
* Partial dependency is when a table has a composite primary key and a non-prime attribute depends on only one part of the composite primary key. This is a partial dependency.

3NF

* A table is in 3NF if it’s in 2NF and there is no transitive dependency for non-prime attributes.
* transitive dependency – if A🡪(depends on) B and B🡪C, then A🡪 C.

(where A,B,C are non-prime attributes)

* This is transitive dependency and for a table to be in 3NF, this should not be true.
* All non-prime attributes should only depend on prime attributes.

BCNF

* A table is in BCNF if it is 3NF and for every functional dependency A🡪B, A should be the super key of that table.