

# Second Normal Form (2NF)

- In the 2NF, relational must be in 1NF.
- In the second normal form, all non-key attributes are fully functional dependent on the primary key

**Example:** Let's assume, a school can store the data of teachers and the subjects they teach. In a school, a teacher can teach more than one subject.

**TEACHER table**

TEACHER_ID	SUBJECT	TEACHER_AGE
25	Chemistry	30
25	Biology	30
47	English	35
83	Math	38
83	Computer	38

In the given table, non-prime attribute TEACHER\_AGE is dependent on TEACHER\_ID which is a proper subset of a candidate key. That's why it violates the rule for 2NF.

**TEACHER\_DETAIL table:**

TEACHER_ID	TEACHER_AGE
25	30
47	35
83	38

**TEACHER\_SUBJECT table:**

TEACHER_ID	SUBJECT
25	Chemistry
25	Biology

47	English
83	Math
83	Computer