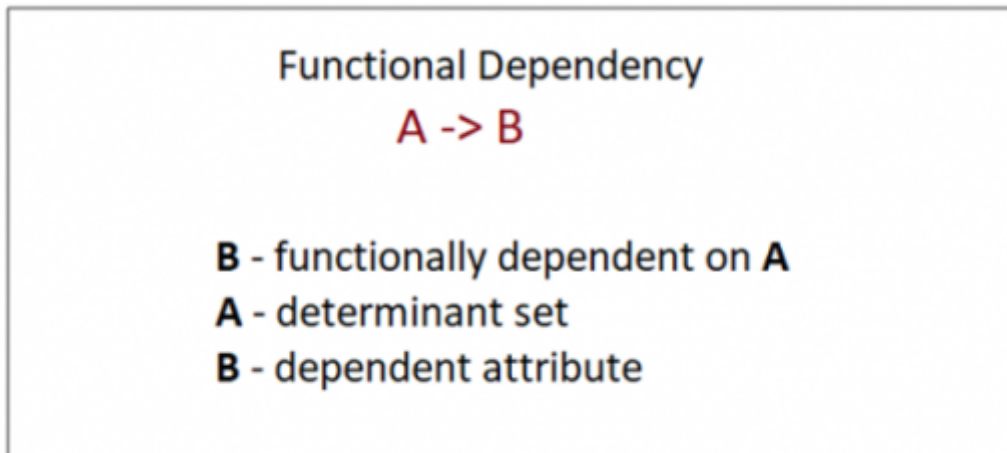


# Functional Dependency

Functional Dependency -- Functional Dependency in DBMS is a relationship between attributes of table dependent on each other.

Functional Dependency (FD) determines the relation of one attribute to another attribute in a database management system (DBMS) system.

The functional dependency is a relationship that exists between two attributes. It typically exists between the primary key and non-key attribute within a table.



The left side of FD is known as a determinant, the right side of the production is known as a dependent.

Â AÂ relation with attributes A and B. Functional Dependency is represented by  $\rightarrow$  (arrow sign).

Uses --Â Functional dependencyÂ **helps you to maintain the quality of data in the database.**

The attributes of a table are said to be dependent on each other when an attribute of a table uniquely identifies another attribute of the same table.

For example: Suppose we have a student table with attributes: Stu\_Id, Stu\_Name, Stu\_Age. Here Stu\_Id attribute uniquely identifies the Stu\_Name attribute of student table because if we know the student id we can tell the student name associated with it. This is known as functional dependency and can be written as  $\text{Stu\_Id} \rightarrow \text{Stu\_Name}$  or in words we can say Stu\_Name is functionally dependent on Stu\_Id.