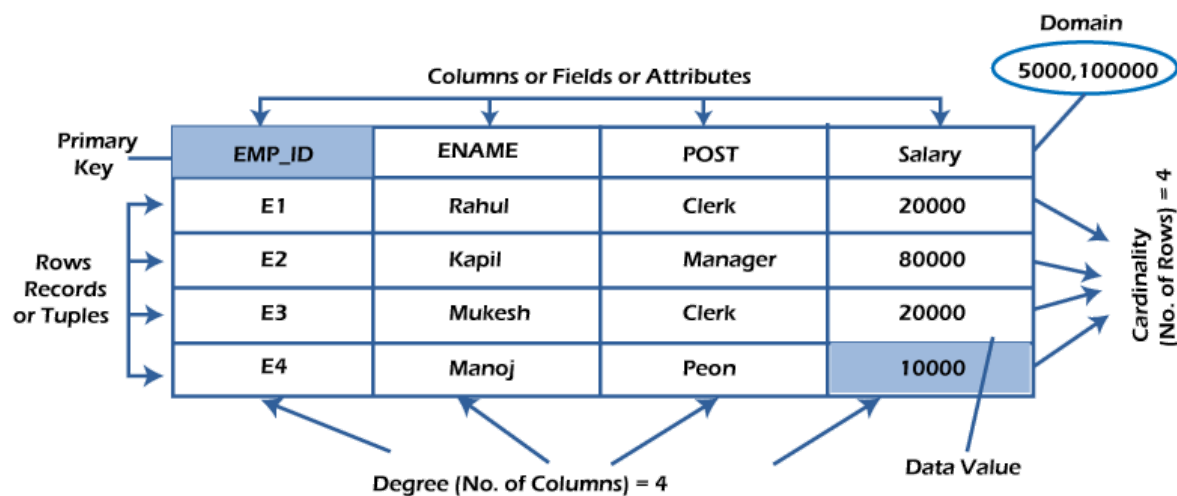


RDBMS

RDBMS?

RDBMS – Relational Database Management System, is a software system or collection of various programs that work together on a relational data model database and offer various integrated entities like – Database administration, Data definition, creation, updation etc.



Column or Attribute

Column is all the values for a particular attribute for a table. This information is stored vertically.

Table

The data in RDBMS systems are stored inside tables.

- In the first row, each column contains the attribute names of an entity. The next set of rows contain the data for an entity set object.

Record or Row

The each row containing the data about a single entity in the entity set is called the record. This is also known as tuple as well.

Field

Fields are nothing but the list of all possible attributes for the table. Roll_No, name, age, GPA, year all are fields.

Keys in Relational Model

- Keys ensure the data integrity and consistency and helps to access a record uniquely
- The relational Model has the following keys
 - Primary Key
 - Foreign Key
 - Candidate Key
 - Alternate Key
 - Super Key
 - Composite Key

Primary Key

A **primary key** is a constraint in a table which uniquely identifies each row record in a database table by enabling one or more the column in the table as primary key.

Foreign Key

- The **foreign key** constraint is a column or list of columns which points to the primary key column of another table
- The main purpose of the foreign key is only those values are allowed in the present table that will match to the primary key column of another table.

Candidate Key

- **Candidate keys** are selected from the set of super keys, the only thing that you should remember while selecting candidate keys is, it should not have any redundant attribute

- Definition of candidate key: Super key with no redundant attributes known as candidate key i.e should not contain any column that contains duplicate data.

Alternate Key

Alternate keys are columns present in the table which are not selected as primary keys but still, they have all the capabilities to be used as a primary key is called alternate key.

Super Key

- A **super key** is a group of single or multiple keys which uniquely identifies rows in a table.
- A Super key **may have additional attributes that are not needed for unique identification.**

Composite Key

A Composite Key is a combination of one or more attributes. If a single column alone fails to be served as a primary key then combination columns would help to uniquely access a record from table such type of keys or nothing but composite keys

