

RELATIONAL DATA MODEL

Relation Data Model uses a collection of 'Tables' to represent both Data and the Relationships among those data.

→ Each Table has multiple Columns and each column has unique name.

	Columns ↓				
					← Attributes

STUDENT (Relation)

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→ The Data is arranged in a Relation which is visually represented in a Two Dimensional Table.

→ The Data is inserted into the Table in the form of Tuples (Rows). A Tuple is formed by one or more than one Attributes. Tuple in this eg is a row (complete row)

0003 Mehtab 29 7

4 Attributes are SID, S_Name, S_Age, S_class.

→ Attributes are used as basic building blocks in the formation of various expression that are used to derive a meaningful information

→ There can be numbers of Tuples in the table (Relation), but all the tuple contains fixed and same Attributes with varying values.



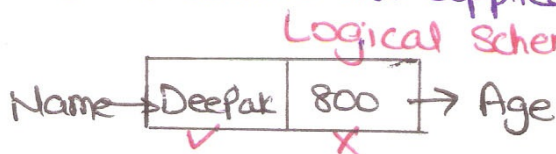
→ A Relation is represented by a Table,
A Tuple is represented by a Row

An Attribute is represented by a Column of the Table.
Attribute name is the Name of the Column
Eg S-ID, S-Name, S-Age.

Attribute values contains the value for the column in the Row.

→ Constraint (Set of Rules and limitations)

** Constraints are applied to the table and form the



As we know the age of a person cannot be 800 years so we will apply some constraint

→ To select a particular Row/Tuple from Table/Relation we use Attributes/Columns name with the help of unique value or field of an Attributes

→ This field which are unique from other fields are used as indexes which helps in searching fast.

→ Attribute with every unique fields.

E-ID	E-Name	E-AGE	E-Gen	E-Sal
0006	Deepak	29	M	18000
0010	Ajay	28	M	15000
0020	Deepak	31	M	18000
0310	Kapil	42	M	17000
0289	Rahul	52	M	14000
0628	Deepak	29	M	16000

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- All the Relational Algebra Operations, like Select, Intersection, Product Union, JOIN, DIVISION, MERGE Can also be performed on the Relation Data Model.
- Operations on RDM (Relational Data Model) are facilitated with the help of different Conditional Expressions, Various Key Attributes & pre-defined Constraints etc.
- Data Integrity is maintained by process like Normalization
- Description of Data in terms of this Model is called a Schema
- Schema for Relation specifies, its name, name of each field.

Student (S_id : Integer,
S_Name : String,
S_Login : String etc)