

Creating / Editing Tables in Design View

Table in Design View

Ques. How to create Table in Design View?

Ans. Steps for creating Table in Design View are as under:

(i) In database window, click on Tables Tab

(ii) Click on create Table in design view

(iii) Table Design window will open

(iv) Enter details → field names

→ Select data type

* (v) You can add description (under description column)

* (vi) You can set field properties

(vii) Now Save it (Ctrl+S)

Setting up Primary Key

- (viii) Choose any unique value (eg. rollno or admission number)

↑
For Student Table

Saving Table

- (ix) Type the name of Table and click OK
- (x) The new table will be added to list of tables in Database window.

Ques. What are the different ways through which you can modify a Table in Design view?

Ans. The different ways through which we can modify a Table in Design view are as under:

- (1) Adding fields
- (2) Moving fields
- (3) Deleting fields
- (4) Changing field properties

Ques. How to Add, Modify and Delete Fields in Table Design View?

Ans. (A) To Add field to a table in Design view follow these steps :-

- (i) Click on a particular table and choose edit
- (ii) Click on a blank field and start adding Field Type and Description
- (iii) Click on a Save icon

(B) To Modify field of a table in Design view follow these steps :-

- (i) Go to Left blank space of particular field name which you want to cut
- (ii) Paste it to the location where you want to Move.

(C) To Delete a field of a table in Design view follow these steps :-

(i) Go to left blank space of particular field which you want to Delete.

(ii) Right click the mouse and choose the option delete.

Ques. ✓ How to change field properties in Design View?

Ans.

Field Properties

A field type describes / determines which type of data can be stored in a field.

1. NUMBER Datatypes
2. TEXT Datatypes
3. DATE Datatypes
4. TIME Datatypes
5. DATE/TIME Datatypes
6. BOOLEAN Datatypes

DATATYPES



Ques. What are various field properties?

Ans. Various properties of field are as under:

(i) Entry Required field property

(ii) Length field property

(iii) Decimal Places field property

(iv) Default Value field property

(v) Format example field property

• Various Field formats are :

1. Numeric / Currency Format

(a) Number

(b) Percent

(c) Currency

(d) Scientific

(e) Fraction

2. Text field Type

3. Date field Type

4. Time field Type

5. Boolean field Type

Ques. What is Data Validation?

Ans. It is the process of ensuring that a valid data (as per rules) should be allowed in a table.

→ For doing this 'Entry Required' field property is used.

→ Set Entry Required field property to Yes, if that particular data is essential (or very imp.) or set it to No, if that particular data is not essential.

Ques. How to set or change field properties of a Table in Design View?

Ans. Steps for changing field properties of a Table in Design view are as under:

- (i) open Table and select edit
- (ii) Select any field property that you want to change
- (iii) To set format field property, click format and choose any preferred format.

Performing operations on Tables

Ques. How to insert data in a Table?

Ans. Steps to insert data in a Table are:

- (i) Click Tables on the Database window
- (ii) Select the table → Right click and select open
- (iii) Click Insert → Record
- (iv) Enter data in first field and then press Tab
- (v) Then click on Save

Ques. How to edit / Modify / Delete data in a Table?

Ans. Step to edit / Modify / Delete data in a Table are as under:

- Editing**
- (i) Click Tables on the Database window
 - (ii) Select the table → Right-click and select open
 - (iii) Make changes in data or type new data
 - (iv) Save changes

- Deleting**
- (i) "
 - (ii) "
 - (iii) Click on the Left Side of the Record that you want to Delete.
 - (iv) Go to Edit then Delete option.

Ques. How to sort data in a Table?

Ans. • Sorting means arrangement of data in a specific order (whether Ascending or Descending order)

→ The field on the basis of which records are sorted, is called Sort-field.

• Steps for sorting data in a Table are as under :

(i) "

(ii) "

(iii) click on the field Name, according to which you want to sort data

(iv) click on any choice - Sort Ascending $\begin{bmatrix} A \\ Z \end{bmatrix} \downarrow$
or

Sort Descending $\begin{bmatrix} Z \\ A \end{bmatrix} \downarrow$

(v) For the option Sort $\begin{bmatrix} A \\ Z \end{bmatrix}$, Sort order box will appear. Choose as per your requirements.

Relationships in Table

For using linked data in multiple tables, relationships among tables is created.

Types of Relationships

• There are three types of relationship that can be formed in a database :

- (i) one - to - one
- (ii) one - to - many
- (iii) many - to - many relationships

(i) one-to-one Relationship

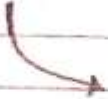
Each record in Table A can have only one matching record in Table B.

Student Table



Roll No	Name	class	Date of Birth
1	Harshit	9	11/01/07
2	Kishor	9	05/06/06
3	Tanish	9	09/07/07
4	Lucky	9	07/02/07
5	Manish	9	09/03/06
6	Sakshi	9	08/04/07

Project Table




Project ID	Project Name	Roll No
P001	IBM Watson	6
P002	Deep web	3
P003	E-learning	1
P004	Sentiment Analysis	4
P005	Robotics	2
P006	AI	5

(ii) One-to-many Relationship

A Record in Table A can have many matching records in Table B.

Teacher Table



Teacher ID	Name
101	Rohit
102	Praveen
103	Hemant
104	Manav
105	Suman
106	Amit

Student Table

RollNo	Name	Class	Date of Birth	Teacher
1	Harshit	9	11/01/07	103
2	Kishor	9	05/06/06	103
3	Tanish	9	09/07/07	103
4	Lucky	9	07/02/07	103
5	Manish	9	09/03/06	103
6	Sakshi	9	08/04/07	103

(iii) Many-to-Many Relationship

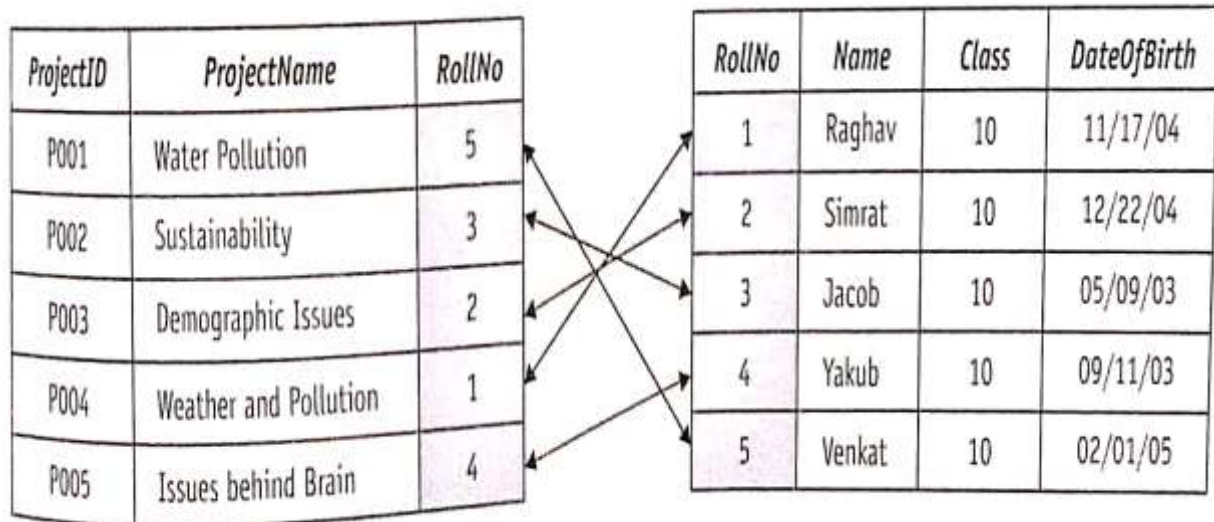
- A Record in Table A can have many matching records in Table B, and a record in Table B can have many matching records in Table A.
- This type of Relationship is possible by defining a Third table

↳ Junction Table

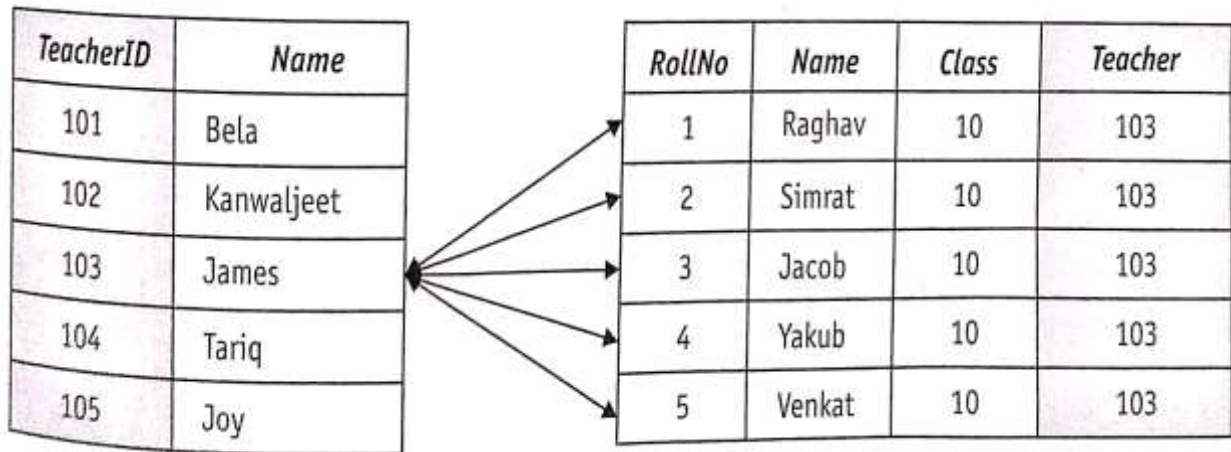
Its Primary Key consists
of two fields - the foreign Keys from
both Table A and B.

* A Many-to-many relationship is actually two
one-to-many relationships with a Third Table.

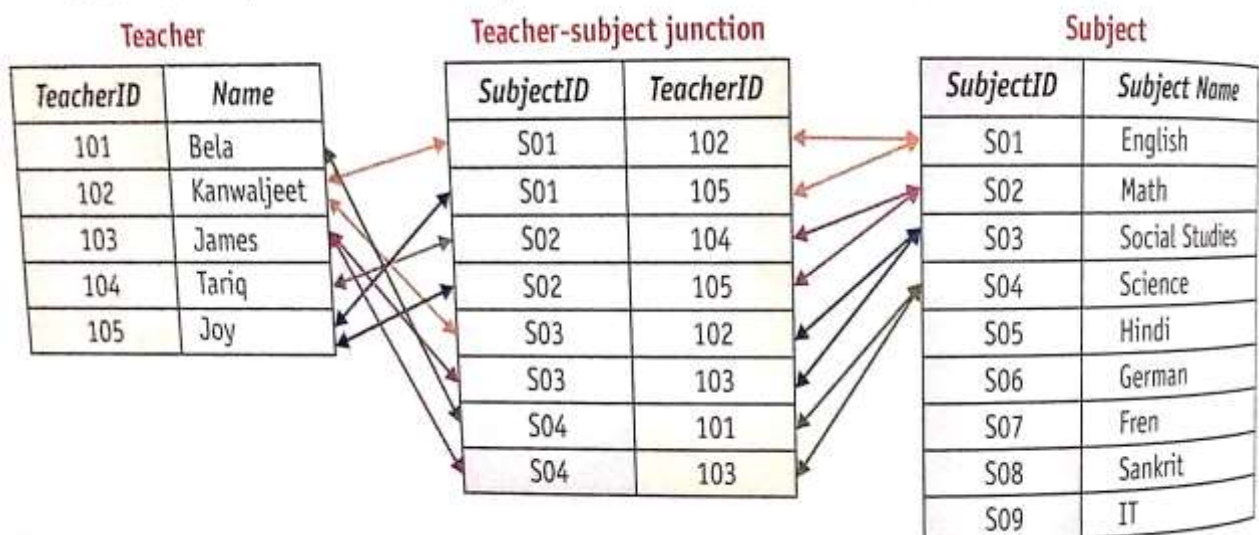
One-to-One Relationship



One-to-Many Relationship



Many-to-Many Relationship



Ques. How to create or edit Relationships in DBMS?
(open office Base)
Creating and Editing Relationships

- For creating and editing relationship among Table follows the following steps :-

(1) on the Menu bar, go to Tools → Relationships

(2) Go to Add Table

(3) Now in Add Tables Dialog, click on Tables whose relationships you want to create and click Add button.

(4) Added tables will shown in Relationships window.

(5) Click close button.

(6) Define relationships which can be :

one-to-one relationship (1-to-1)

one-to-many relationship (1-to-n)

Many-to-one relationship (n-to-1)

- Referential Integrity - It is a system of rules that a DBMS uses to ensure that no related data gets accidentally deleted or changed.

- Conditions for Referential Integrity

Referential Integrity can be set if following conditions are met:

- (i) The matching field from the primary table is a primary key or has a unique index.
- (ii) The related fields have the same data type.
- (iii) Both tables belong to the same Database.

- Rules of Referential Integrity

- (i) You cannot enter a value in the foreign key field of the related table that doesn't exist in the primary key of the primary table.

TeacherID	Name
101	Praveen
102	Rajesh
103	Rohit

RollNO	Name	Class	DOB	Fee
1	Raghav	9	01/08	103
2	Venkat	9	02/09	103
3	Simrat	9	04/10	103

(ii) You cannot delete a record from a primary table if matching records exist in a

Related Table.

TeacherID	Name	RollNo	Name	class	DOB	Teacher
101	Praaveen	1	Raghav	9	01/08/93	103
102	Rajesh	2	Venkatesh	9	02/06/94	103
103	Rohit	3	Simrat	9	03/07/95	103

Here — you cannot delete this record.

Primary Table

Related Table

(iii) You cannot change a Primary Key value in the Primary table, if that record has related records.