

WORKING WITH QUERIES, FORMS AND REPORTS

Class VIII , Ch-3
PERIOD-1

CHANGING YOUR TOMORROW

LEARNING OUTCOMES

- Learn the what is query
- Learn how to set relationship between tables.
- Learn steps to Creating a query in Query Wizard

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What is a Query?

- A Query is like a simple question that displays specific records from a database that meet a certain criteria. Example, who lives in Gwalior, Who is Fail in Exam etc.
- **Definition of Query:** A Query is a database object that allow you to retrieve information from one or more database tables that meet a specific condition or criteria specified by you.
- The information retrieved on the basis of a specified criteria in the query is stored in a separate table, called the **Query table**.

Roll No	SName	City	Address	Contact No
101	Mark	Gwalior	B-21, Mohan Nagar	9565231144
102	Tim	Manali	D/34, Keshav nagar	8755265456
103	Steave	New Delhi	Army Area	7455633215
104	Charles	Hyderabad	Civil Lines	8564422331

Roll No	English	Maths	Science	Hindi	S St	ICT	Result
101	90	85	95	83	73	78	pass
102	75	78	80	75	81	79	pass
103	90	89	92	93	59	80	pass
104	42	32	41	21	27	38	fail

- Queries are made on tables and the results are displayed in the form of a table, i.e., in a group of rows and columns with set of records that match the given condition.
- Microsoft Access provides various types of queries: Select, Parameter, crosstab, Action and Structured Query Language (SQL) query.

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- ***A Query is a database object that allows you to retrieve information from one or more database tables that meet a specific condition or criteria specified by you.***
- ***The information retrieved on the basis of a specified criteria in the query is stored in a separate table, called the Query table.***
- ***A query is a simple question that you ask to find a specific information from the database. Similarly in Access, when you build a query, you are defining specific search conditions.***

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- In our daily life, you make several types of queries to get specific information. For example, which students are scoring above 85% marks? Which students live in Sector-4, Chandigarh? And so on..

➤ SETTING A RELATIONSHIP BETWEEN TABLES

Figure 3.1: Students Table

Relationships are links that associate a field in one table with the same field in another table. In Access, you can store data in multiple tables. To bring that information together, you need to define relationships between the tables. Once you have defined the relationship between the tables, data from both the tables can be used by Query, Form, or Report.

A relationship works by matching a field with the same name in both the tables. In most cases, these matching fields are a **Primary key** from one table that uniquely identifies each record in a table, and a **Foreign key** in the other table.

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To create a relationship, make two tables one with the name **Students** that holds information about students, such as their Roll_No, F_Name, Class, Address, and City. And the other with the name **Marks** that holds the information about the students' Roll_No, Percentage and Grade. Open one of them in the **Datasheet View**.

Roll_No	F_Name	Class	Address	City
101	Nisha	8	#81, Sector 3	Panchkula
102	Vivek	8	#89, Sector 2	Panchkula
103	Naman	8	#67, Sector 21	Panchkula
207	Gitika	9	#9, Sector 23	Chandigarh
208	Preet	9	#89, Sector 21	Chandigarh

Figure 3.2: Students Table

Observe there is one common field, i.e., Roll_No in both the tables.

Roll_No	Percentage	Grade
101	89	A
102	90	A+
103	95	A+
207	87	A
208	60	B

Figure 3.3: Marks Table

- Click on the **Database Tools** tab. Select the **Relationships** button  from the **Relationships** group.

- ▶ The **Show Table** dialog box appears, select the required table and click on the **Add** button. The selected table will appear in the object **Relationships** window. Likewise, add another table to the **Relationships** window.
- ▶ You can activate the 'Queries' tab if your relationships are based on queries, or activate 'Both' tab if relationships are based on both-Tables and Queries.
- ▶ Click on the **Close** button to close the **Show Table** dialog box.

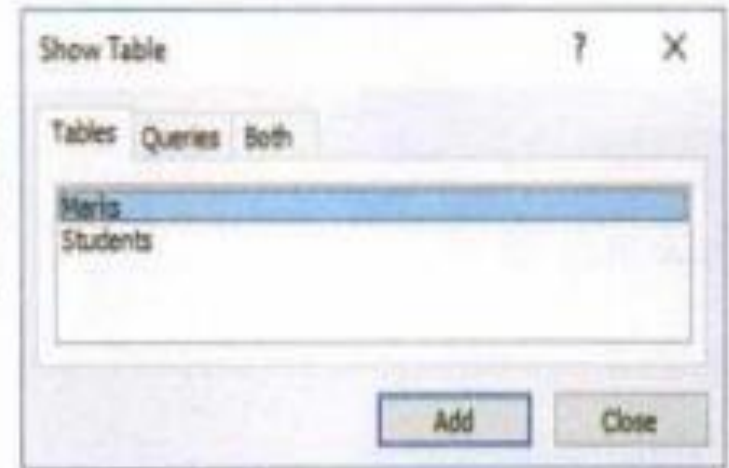


Figure 3.4: Show Table Dialog Box



Figure 3.5: Edit Relationships Window

- Drag the Primary key of the parent table (e.g., **Students** Table) and drop it over the same field in the child table (e.g., **Marks** Table). In our example, Roll_No is the primary key.
- The **Edit Relationships** dialog box appears.
- Click on the **Create** button. Access creates the relationship between the tables.

- A line linking the two tables will appear indicating that both have been linked on the basis of the linked field.
- Click on the **Save** button on the **Quick Access Toolbar** to save the relationship and then close the Relationships window by clicking on the **Close** button on the Relationships group.

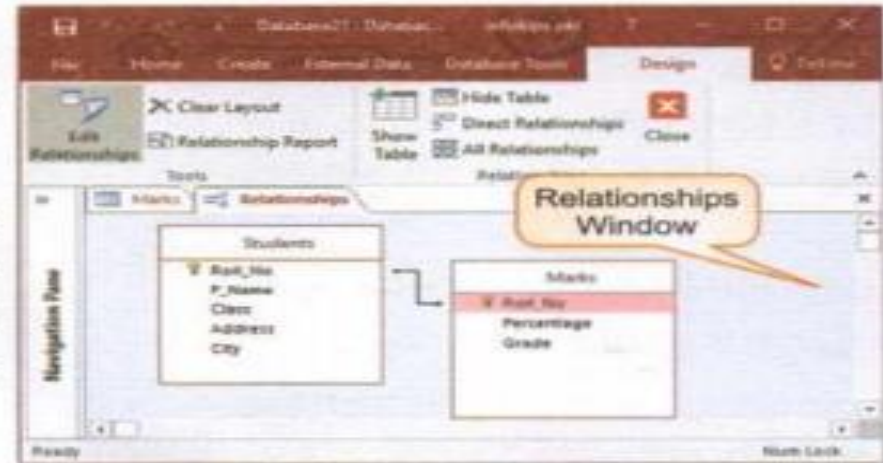


Figure 3.6: Tables Added to the Relationships Window

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Creating query in Design view

➤ CREATING A QUERY

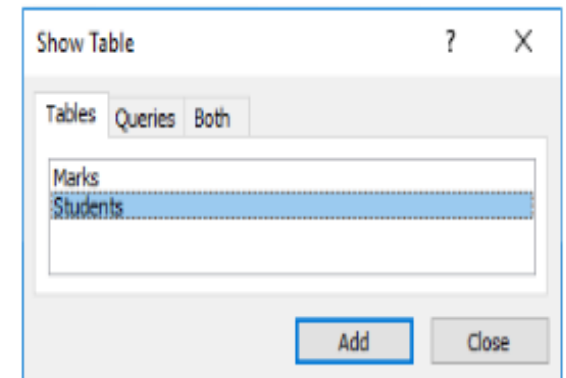
Access provides two ways to create a Query:

- Query Wizard
- Query Design

CREATING A QUERY IN DESIGN VIEW

The **Design View** gives you more control over a query. It allows you to create a query from the scratch.

- Open the database and click on the **Create** tab on the Ribbon. Now, click on the **Query Design** button in the **Queries** group.
- The **Show Table** dialog box is displayed from which you can select the record source for your query that can be one or more **Tables** or **Queries** or a



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- Select the table from the **Show Table** dialog box on which you would like to run a query. Click on the **Add** button and then click on the **Close** button.
- The selected table appears as a small window displaying a list of fields in the upper section of the Query window, i.e., the **Object Relationship Pane**.
- Double-click on the field names you want to add in the query. They will be added to the **Design Grid** (the bottom section of the Query window). You can also add fields to the query by dragging them from the field list to the

Design Grid. The Design grid is similar to a spreadsheet, with columns representing each field in the query.

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Let us understand the **Design Grid**.

Field : The first row of the Design Grid displays the selected field names from the table.

Table : Beneath each field name is the name of the existing table.

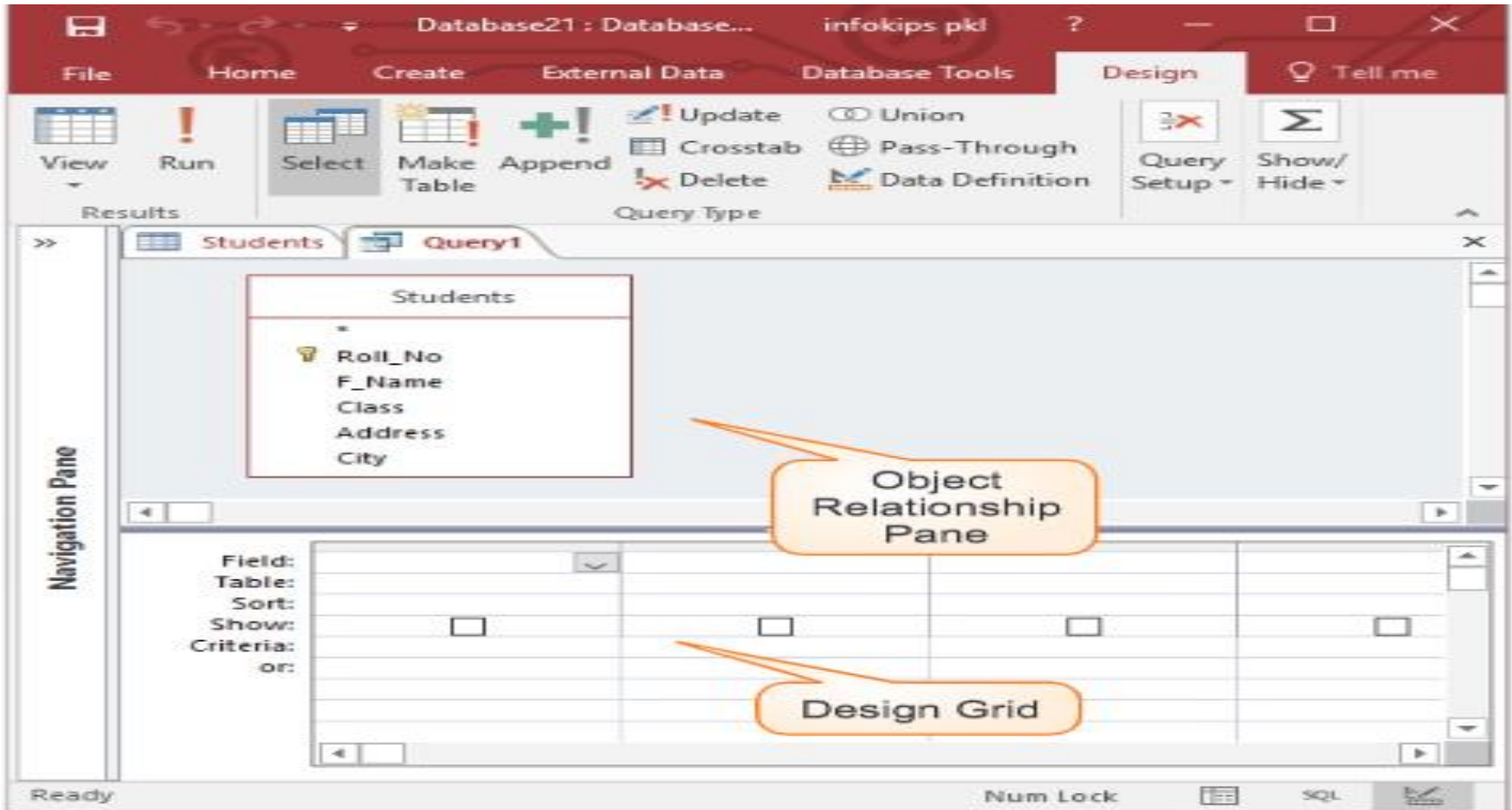
Show : The Show row displays a check mark. The fields with check marks display the information when the query is run. To hide the field during run time, deselect the check mark by clicking on it.

Sort : This property is used to filter the data either in an ascending or descending order. It is optional.

Criteria : It contains the condition on the basis of which the records will be filtered in the Query output.

Or : This property is used to set multiple criteria in a query.

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Recap

- ***A Query is a database object that allows you to retrieve information from one or more database tables that meet a specific condition or criteria specified by you.***
- Relationships are links that associate a field in one table with the same field in another table. In Access, you can store data in multiple tables.
- A relationship works by matching a field with the same name in both the tables. In most cases, these matching fields are a Primary key from one table that uniquely identifies each record in a table, and a Foreign key in the other table.
- <https://edu.gcfglobal.org/en/access/designing-a-simple-query/1/> to learn more

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Home Assignment

- 1 what is Query?
- 2. What is Relationship?
- 3. What is primary key and Foreign Key?
- 4. How to delete Relationship?
- What is query design?

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THANKING YOU

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