PRACTICAL-UNIT 4: Establishing Relationships

1. Make a New Folder named UNIT_4. (Desktop -> Right click -> New -> Folder)

2. Create a database, School

a. Start MS Access 2007 --> Blank Database,
b. Select the location of folder **UNIT_4.**
c. File Name box, type School
d. Click Create.

3. Create a Table, Students

a) Create → Table Design.
b) Enter the field names and data types as given below:

Field Name	**Data Type**
Student _ID	Number (Select Student_ID as Primary Key)
Student_Name	Short Text
Class	Number
Section	Short Text
Date_of-birth	Date / Time

c) Save the table as **Students**
d) Enter the following data in **Datasheet view**

Student_ID	Student_Name	Class	Section	Date_of_Birth
501	Ankit	11	A	14/11/2015
502	Bimal	11	B	04/11/2016
670	Ruby	10	B	08/01/2000
345	Rinky	10	A	10/09/2012
123	Manisha	10	B	11/05/2011
267	Khushal	10	C	18/12/2017

4. Create a Table, Fees

a) Create → Table Design.
b) Enter the field names and data types as given below:

Field Name	**Data Type**
Fee _ID	Number (Select Fee _ID as Primary Key)
Student_ID	Number
Fee_Date	Date/Time
Amount	Currency

c) Save the table as **Fees**
d) Enter the following data in **Datasheet view**

Fee_ID	Student_ID	Fee_Date	Amount
1	345	06/11/2026	670
2	670	05/11/2026	900

Fee_ID	Student_ID	Fee_Date	Amount
3	670	04/11/2026	790
4	502	02/11/2026	500
5	501	04/11/2026	250
6	502	01/11/2026	300

5. Creating a Relationship Between Students and Fees Tables

To create a relationship, we use the Student_ID field, which is the Primary Key in the Students table and the Foreign Key in the Fees table.

Steps:

a) Click on Database Tools.
b) Click on Relationships.
c) The show Table window appears.
d) Add **Students** Table and **Fees** Table and Close Show Table Window.
e) Drag the Student_ID field from the **Students** table.
f) Drop it onto the Student_ID field in the **Fees** table.
g) The Edit Relationships dialog box appears.
h) Select Enforce Referential Integrity.
i) Click Create / Create New
j) A relationship line appears between the two tables.
k) Save the relationship layout.

6. Creating a Query to display records of Students whose Amount is greater than or equal to 500 and name it AmountQuery

Steps:

a. Click **Create → Query Design**.
b. Add tables, **Students** and **Fees**
c. Add the Fields: **Students.Student_ID, Students.Student_Name, Fees.Amout and Fees.Date**
d. In the **Criteria** row under **Amount**, type >= 500
e. Click Query design→**Run (!)**.
f. Save the query as **ItemQuery.**

7. Understanding the Relationship: The relationship between **Students** and **Fees** is a One-to-Many (1:M) relationship.

This means that

- One student can have multiple fee records.
- Each fee record belongs to one student.

8**. Important Notes**

1. **Primary Key**: A field that uniquely identifies each record in a table.
2. **Foreign Key**: A field used to establish a relationship between two tables.
3. **Referential Integrity**: It ensures that relationships between records in related tables remain valid.