

Study stream : Computer Science  
Level: 2nd Year Bachelor's Degree  
Module: DataBase  
Instructor: Dr. Bouneb M.

### *Practical Work N°02*

#### **Objectives :**

*This practical session contains two parts:*

#### **Part One:**

- ☞ *How to create tables.*
- ☞ *Entering data into tables.*
- ☞ *Renaming tables.*
- ☞ *Editing tables.*
- ☞ *Field properties of a table.*
- ☞ *Defining a primary key.*
- ☞ *Creating relationships between tables.*
- ☞ *Referential integrity control.*

#### **Part two : Practical Exercise**

#### **Part 01 :**

1. Create a database for managing a medical clinic containing the following tables: **Patient**, **Doctor**, **Nurse**, **Appointment**, and **Visit**.

#### **Table Schemas:**

##### **Patient Table Schema:**

Field Name	Data Type
<b>PatientID</b>	AutoNumber
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>City</b>	Short Text
<b>Phone</b>	Integer (10)

##### **Doctor Table Schema:**

Field Name	Data Type
<b>DoctorID</b>	AutoNumber
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>Specialty</b>	Short Text
<b>Phone</b>	Integer (10)
<b>Fee</b>	Money (DA)

- **Appointment Table Schema:**

Field Name	Data Type
<b>AppointmentID</b>	AutoNumber
<b>PatientID</b>	Number
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>DoctorID</b>	Number
<b>Dat</b>	Date

- **Visit Table Schema:**

Field Name	Data Type
<b>VisitID</b>	AutoNumber
<b>PatientID</b>	Number
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>DoctorID</b>	Number
<b>Symptom</b>	Short Text
<b>Diagnosis</b>	Short Text

- **Nurse Table Schema:**

Field Name	Data Type
<b>NurseID</b>	AutoNumber
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>Phone</b>	Integer (10)

2. Write query to add a **Date** column to the **Visit** table.

3. Enter provided data into the tables.

PatientID	LastName	FirstName	City	Phone
1	siouni	hanane	Oum el bouaghi	0501111111
2	akache	Amal	constantine	0502222222
3	maazouz	wail	Mila	0503333333
4	masali	aymen	Skikda	0504444444
5	ragem	hichem	Constantine	0505555555

6	chaouchi	walida	Batna	0506666666
7	maamr	said	Batna	0507777777
8	adouala	Raouf	Baskra	0508888888
9	hajaj	chaima	Batna	0509999999
10	boumahra	omar	Batna	0511111111

DoctorID	LastName	FirstName	specialty	Phone	Fee
1	barkat	haider	dermatologist	0791111111	1500DA
2	idir	soriya	dermatologist	0771111111	1500DA
3	zoued	fatiha	general practitioner	0772222222	1000DA
4	benchikha	samra	ophthalmologist	0773333333	1500DA
5	Boujelel	Abed lkrim	cardiologist	0774444444	1500DA
6	Madawi	hacene	internal diseases	0775555555	1500DA
7	Boulgoud	Ahmed	internal diseases	0711111111	1500DA
8	Lazar	Abed rahim	Neurologist	0721111111	1500DA
9	Merji	youcef	Neurologist	0722222222	1500DA
10	Khalouf	Abed el Hak	psychologist	0713333333	1500DA

AppointmentID	PatientID	LastName	FirstName	DoctorID	Dat
1	6	mamar	said	5	21/01/2017
2	3	maazouz	Wail	8	21/01/2017
3	4	masali	aymen	5	21/01/2017
4	3	maazouz	wail	1	21/01/2017
5	5	ragem	hichem	1	21/01/2017
6	2	akache	amal	4	21/01/2017
7	6	chaouchi	walida	1	22/01/2017
8	4	masali	aymen	2	22/01/2017
9	2	akache	amal	9	22/001/2017
10	1	siouni	hanane	6	22/02/2017
11	2	akache	amal	6	22/03/2017
12	4	masali	aymen	8	02/03/2017
13	4	masali	aymen	7	23/04/2017

VisitID	PatientID	DocteurID	symptom	diagnosis	dat
1	6	5	Heartbeat turbulence	Heart mutmur	21/01/2017
2	3	8	headache, heavy tongue, difficulty pronouncing words.	Stroke	21/01/2017
3	4	5	Drop in blood pressure	Heart tension	21/01/2017
4	3	1	. Spots on the skin	Psoriasis	21/01/2017
5	4	2	Brown spots on face	hyperpigmentation	22/01/2017
6	2	9	Joint pain in cold weather	Romanticisme	22/01/2017
7	1	6	Stomach ache, vomiting	Food poisoning	22/02/2017
8	2	6	Stomach ache, vomiting	Stomach ulcer	22/03/2017

9	4	8	headache, heavy tongue, difficulty pronouncing words.	Heart tension	02/03/2017
10	4	7	Stomach ache, constipation	Nervous colon	23/04/2017

4. Define primary keys for each table.
5. Save the database as **TP2-part1.accdb**.
6. Rename the **Doctor** table to **Medicaster**.
7. Write SQL query to delete the **Nurse** table.
8. Display field properties for each table.
9. Establish relationships between the **Visit**, **Patient**, and **Medicaster** tables, ensuring referential integrity.

**Part 02:**

1. Create a database for managing a furniture store. The database should contain the following tables: **Client**, **Item**, and **Order**.

**Client Table Schema:**

Field Name	Data Type
<b>ClientID</b>	AutoNumber
<b>LastName</b>	Short Text
<b>FirstName</b>	Short Text
<b>City</b>	Short Text
<b>Phone</b>	Integer (10)

**Item Table Schema:**

Field Name	Data Type
<b>ItemID</b>	AutoNumber
<b>Name</b>	Short Text
<b>StockQty</b>	Integer
<b>UnitPrice</b>	Money (DA)

**Order Table Schema:**

Field Name	Data Type
<b>OrderID</b>	AutoNumber
<b>ClientID</b>	Number
<b>ItemID</b>	Number
<b>Quantity</b>	Number
<b>Date</b>	Date

2. Enter provided data into the tables.

<i>ClientID</i>	<i>LastName</i>	<i>FirstName</i>	<i>City</i>	<i>Phone</i>
1	asad	fairouz	Constantine	0511111111
2	benhani	douniazed	Oum el bouaghi	0611111111
3	zamamouche	rahmane	skikda	0711111111
4	gharbi	ismain	Constantine	0522222222
5	masali	radwane	Oum el bouaghi	0622222222
6	asad	rida	Constantine	0722222222
7	manea	ghozlane	Oum el bouaghi	0533333333
8	hanachi	karim	skikda	0633333333
9	chaoui	rida	skikda	0733333333
10	omrane	salim	Guelma	0744444444

<i>ItemID</i>	<i>Name</i>	<i>StockQty</i>	<i>UnitPrice</i>
1	Wardrobe	15	60000DA
2	Desk	20	12000DA
3	Folding chair	100	3000
4	Living room chair	150	35000
5	Shoe rack	50	12000DA
6	Kitchen furniture	40	20000DA
7	Wall cupboard	20	10000DA
8	Coffe table	20	2000DA
9	Kitchen table	15	13000
10	Jarden table	10	35000DA

<i>OrderID</i>	<i>ClientID</i>	<i>ItemID</i>	<i>Quantity</i>	<i>dat</i>
1	6	2	5	21/05/2005
2	10	5	3	21/05/2005
3	2	4	7	22/05/2005
4	4	3	6	22/05/2005
5	3	2	1	22/05/2005
6	5	10	2	23/05/2005
7	7	6	10	24/05/2005

3. Display field properties for each table.
4. Define primary keys for each table.
5. Establish relationships between the tables (primary/foreign key correspondence).
6. Apply referential integrity control.
7. Save the database as **TP2-part2.accdb**.