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## **Employment the database of software (Microsoft Access) in implementing and printing official documents**

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**Abstract.** As a result of higher development in the world in all its fields, the circle of requirements of that development has increased in general and in administrative work specially expanded in terms of the introduction of new administrative systems and generated a routine movement that disrupts the flow of transactions in all government institutions, this has a negative impact on the speed of completing transactions and the exertion of great effort. By employees in exchange for a small number of completed transactions compared to the large numbers of uncompleted transactions. The need for technological intervention in this field has necessitated the solution of this problem, through the use of the technological capabilities available in those institutions, which are within the reach of the institution's employees and which do not cost anything. Financial sums, as it meets the actual need to complete administrative work in a complete and simplified manner in a very short time, and there is no need to contract with software companies that work to design a special program for the organization for very exorbitant amounts, in addition to the complexity of the programs, which requires enrolling employees in training courses on how to use it, in addition to an inventory. Update to the program by the company that designed it.

**Keywords.** Database of software, Microsoft Access, official documents

### **Introduction**

As a result of higher development in the world in all its fields, the circle of requirements of that development has increased in general and in administrative work specially expanded in terms of the introduction of new administrative systems and generated a routine movement that disrupts the flow of transactions in all government institutions, this has a negative impact on the speed of completing transactions and the exertion of great effort. By employees in exchange for a small number of completed transactions compared to the large numbers of uncompleted transactions. The need for technological intervention in this field has necessitated the solution of this problem, through the use of the technological capabilities available in those institutions, which are within the reach of the institution's employees and which do not cost anything. Financial sums, as it meets the actual need to complete administrative work in a complete and simplified manner in a very short time, and there is no need to contract with software companies that work to design a special program for the organization for very exorbitant amounts, in addition to the complexity of the programs, which requires enrolling employees in training

courses on how to use it, in addition to an inventory. Update to the program by the company that designed it.

**First: the research problem:**

Recently, observed that there are real problems and delays in completing administrative transactions in government institutions and waiting large number of auditors to finish their transactions daily as a result of the use of the traditional routine system.

From here came the idea of using the Microsoft Access database program and using its reports to implement and print official documents.

**Second: The importance of research:**

The use of the Microsoft Access database program and its reports in implementing in printing official documents is very important as it contributes to completing official transactions very quickly with little effort on the part of the employee. Otherwise, the incidence of errors being almost negligible. Therefore, the completion rate of transactions is very large when compared to the method of traditional routine.

**Third: Research objective:**

This study aims to complete the largest possible number of transactions daily and achieve the highest level of Job Satisfaction for both employees and auditors in the quality of the services provided, and speed of completion. In the end, that will give the employee's high feeling in job satisfaction.

**Fourth: Search terms:**

**Microsoft Access program:**

According to: Santiago Bragagnolo, Nicolas Anquetil, Stephane Ducasse , Seriai Abderrahmane, and Mustapha Derras 2020 :(Access is a relational database management system (RDBMS) that besides of-fering the relational Microsoft Jet Database Engine, also offers a graphical user interface and software-development tools).

The researcher defines it as: It is one of the service programs produced by Microsoft to work with databases. It contains a graphical interface for ease of working with data, saving it, and modifying it within tables that are designed according to need. The stored data can be retrieved whenever needed, and it can manage databases and link tables through hyperlinks to create queries.

**The purpose of using Microsoft Access:**

The point of using Microsoft Access is to transform the nature of administrative work from the traditional routine system to an automated electronic system.

**Benefits of using Microsoft Access:**

1. Ease of use.
2. Doing everything that administrative work requires to create a database, its graphical interfaces and reports.
3. It allows the user to create relationships between table data that provide shortcuts to the work and comprehensive coverage of the required information by creating relationships to form queries.

4. Designing forms that in turn display table and query information for each entry separately without displaying the total information for all entries as in Microsoft Excel.
5. Making models for implementing printing work according to the design required by the administrative work.
6. It facilitates the process of searching for the required information in a very short time.
7. Possibility of saving and retrieving electronic archives.
8. It can attach files such as (images, files, web pages...etc)

**Disadvantages of Microsoft Access:**

The storage capacity of each file does not exceed 2GB.

**Previous studies:**

Yuniar Farida & Latifatun Nadia Desinaini (2021):-

The study aimed to make an administration letter and archives system based on Microsoft Access. Also, the results of the study design have passed the trial process for approximately two weeks and received good responses. Therefore, the researchers said that the system design can be run well, and it functions correctly without errors and can help the secretary or other employees to manage all documents (letters and archives) more accessible and faster.

**Steps of create a program in Microsoft Access**

**Determine requirements:**

Determine the requirements to obtain the type of information (textual, digital, date, time, etc.) with great care, because it is of great importance in determining the type of entries to the database according to what is required by administrative work.

**Planning:**

It is a series of steps study to determine the work dimensions in an organized manner. These steps vary from one project to another according to what the project requires. These steps help in understanding the working mechanism in detail, as the planning process precedes the design process because the design depends entirely on the planning stage .Chart No. (1) shows this.

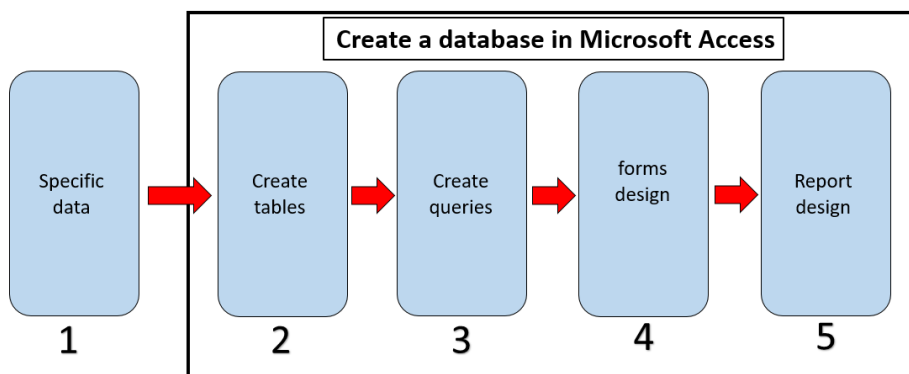


Chart No. (1) Illustrates the planning process

**System Analysis:**

System analysis is the first building block for starting any project that is created. Therefore, the necessary needs to solve current and future problems must be identified. Scheme No. (2) explains this.

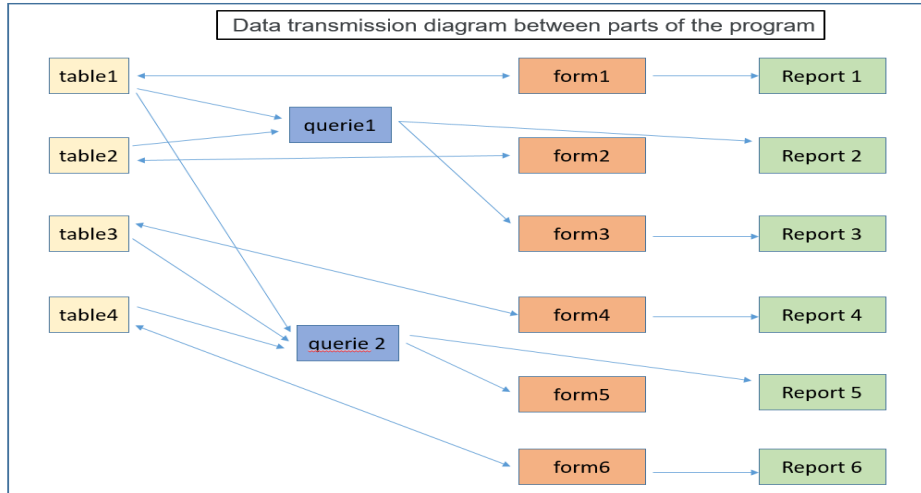


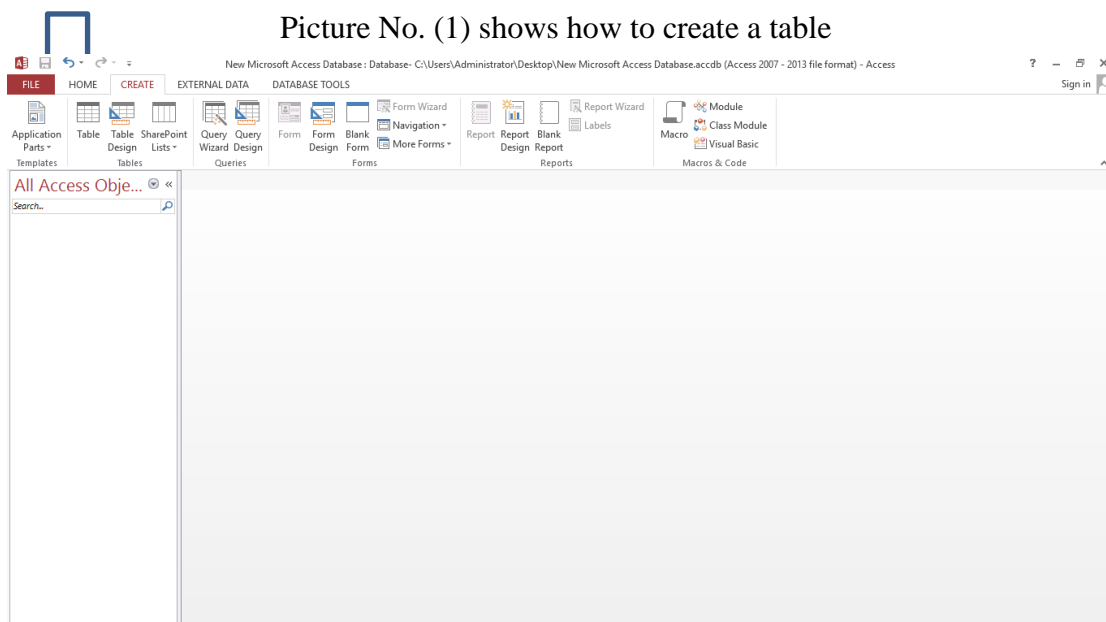
Diagram No. (2) shows the process of data transfer between parts of the program.

**The design:**

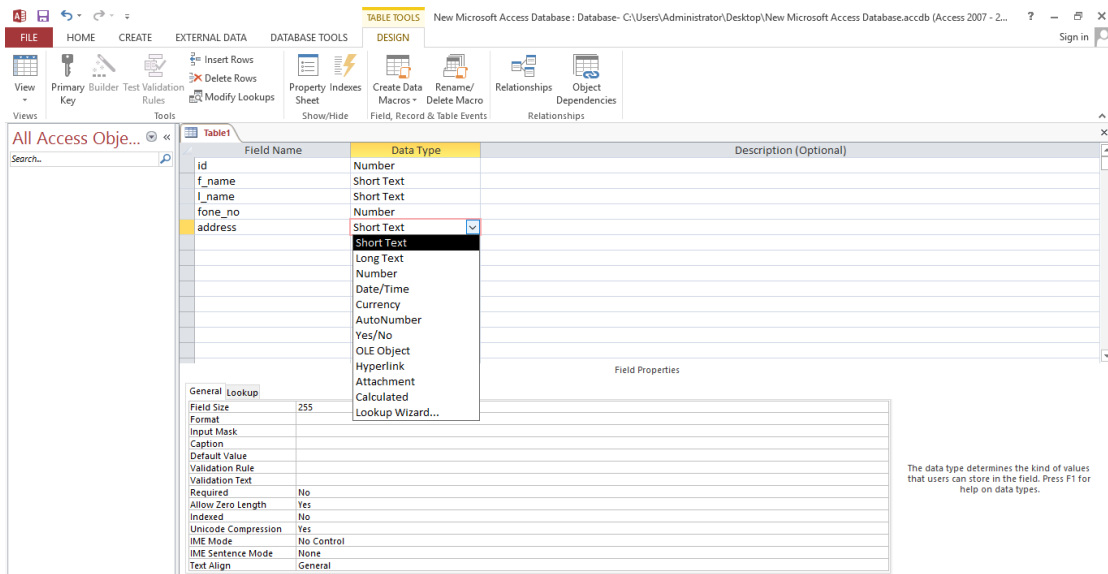
The design phase consists of several parts:

**1. Create tables:**

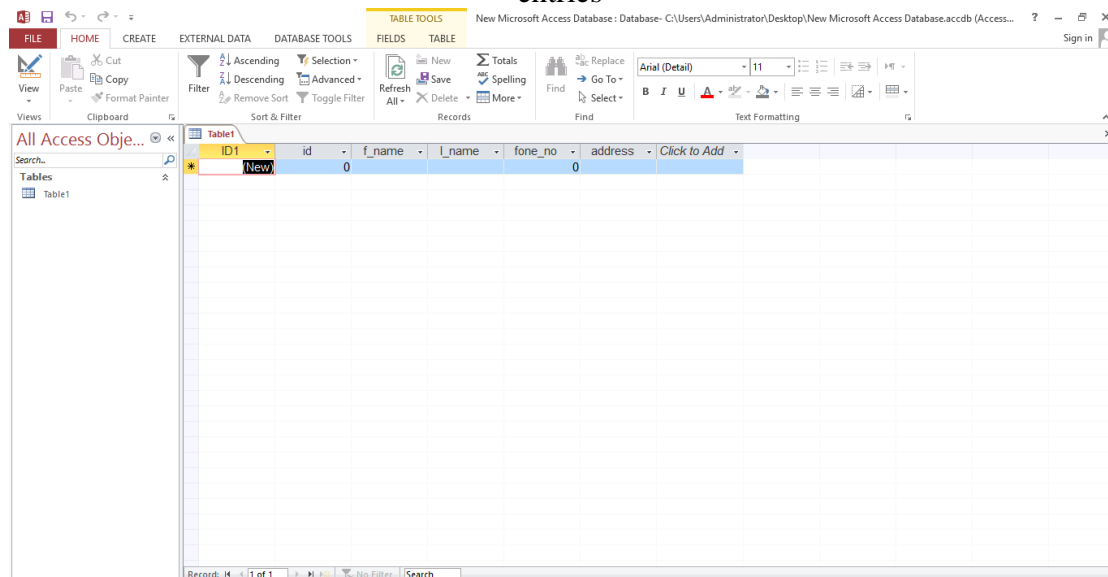
This stage is one of the most important stages of composing the program because the program depends entirely on the information that will be stored within these tables, and each table is designed in a different way based on the type of data that the table will store, which is determined in advance according to what the administrative work requires, Image No. (3,2, 1) Explains how to create and design the table and determine the type of entries and how to display it.



Picture No. (1) shows how to create a table



Picture No. (2) shows how to design the table and the template for determining the type of entries



Picture No. (3) shows the table view after completing its design

## 2. Create queries:

The query is one of the important basic joints in configuring the program. It works to link the fields of more than one table, linking them completely or partially, depending on the type of relationship that arises between them. This is done by making a duplicate field in each table and it is considered a primary key. The query helps to overlap the information of the fields of the tables that have been chosen. And create a special table that collects information for these fields, knowing that all information is stored in tables and information is not stored in query fields. Pictures No. (7,6,5,4) show how to create the query and how to design it by identifying the tables whose fields are combined and how to create a relationship. A link between tables and how the query is displayed.

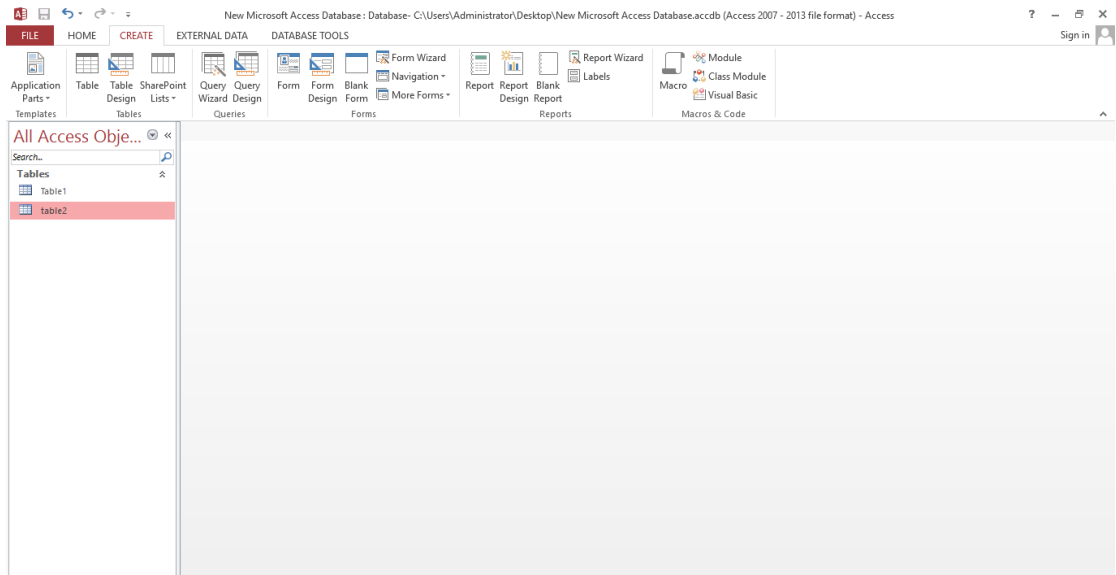


Image No. (4) shows how to create the query

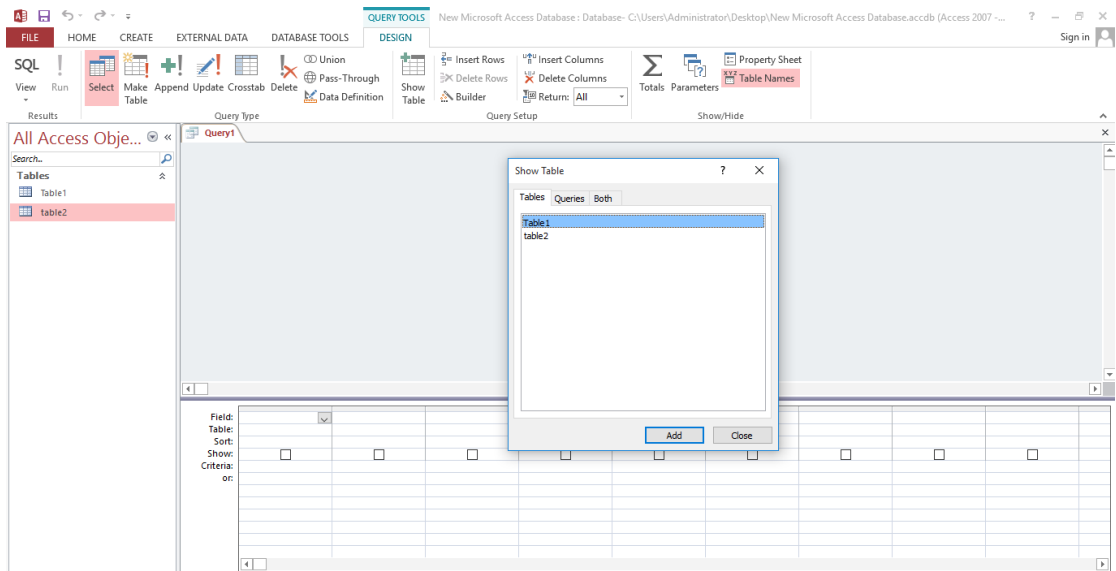


Image No. (5) shows how to design the query and select the tables to merge their fields

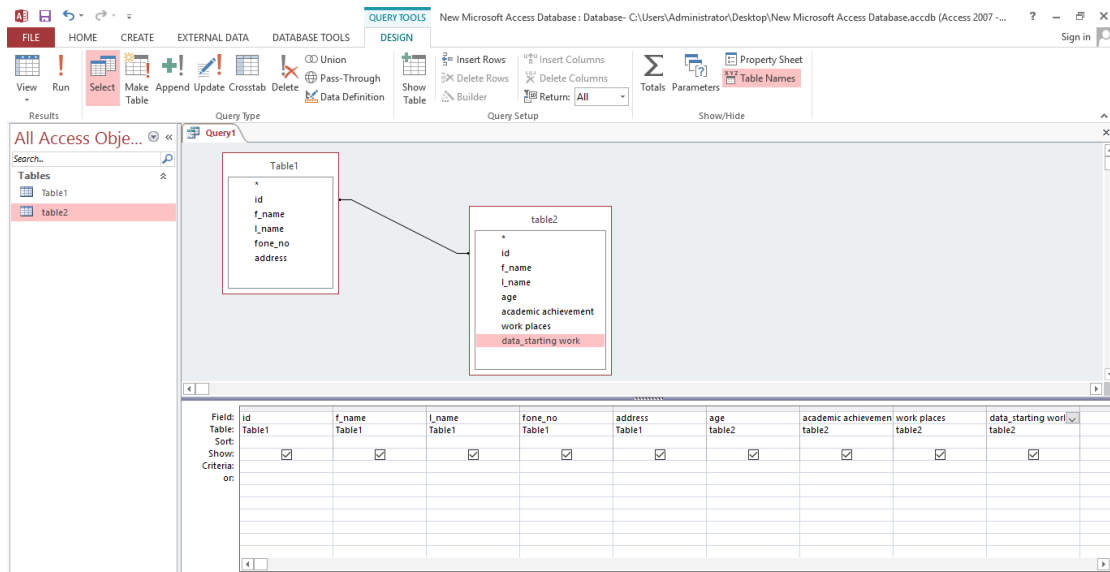


Image No. (6) shows how to create a correlation relationship between tables

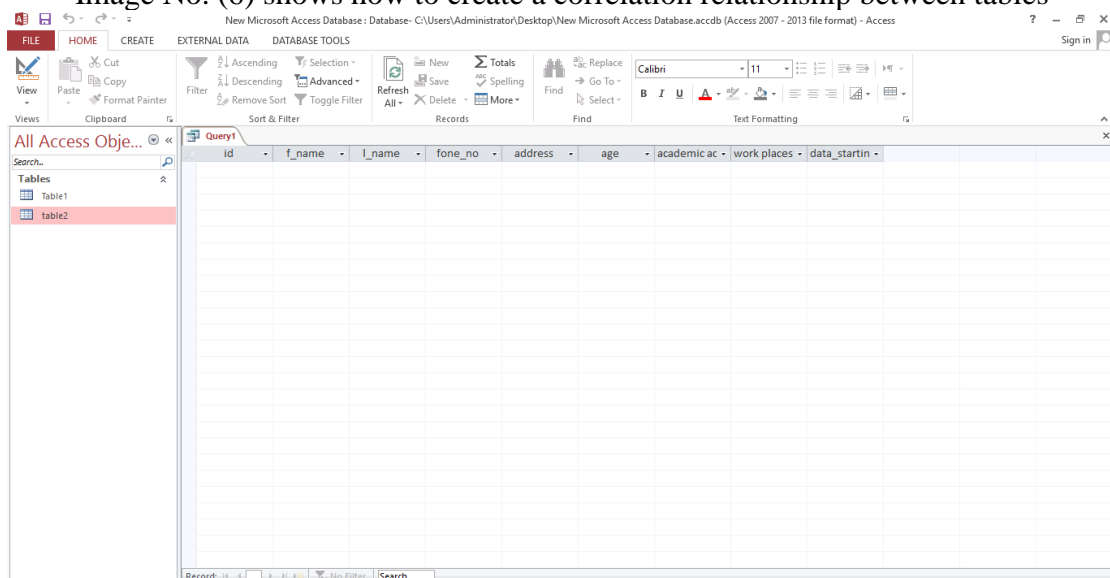


Image No. (7) shows the query display after designing it

### 3. Create forms:

The form is considered the interactive window part between the user and the program. It allows the user to easily deal with the program in terms of (entering, saving, displaying, modifying, deleting) information, printing reports, and moving between forms. The Access program is distinguished by providing sufficient comprehensiveness of the necessary tools to create forms with ease. Design This is because most of the tools are almost self-programmed. The design of each form differs from the other forms according to the fields that are linked to it from the tables or queries, and according to the programmer's vision in choosing the appropriate colors or the method of arranging the tools. Pictures No. (9,8) show how to create a form and how to display it.

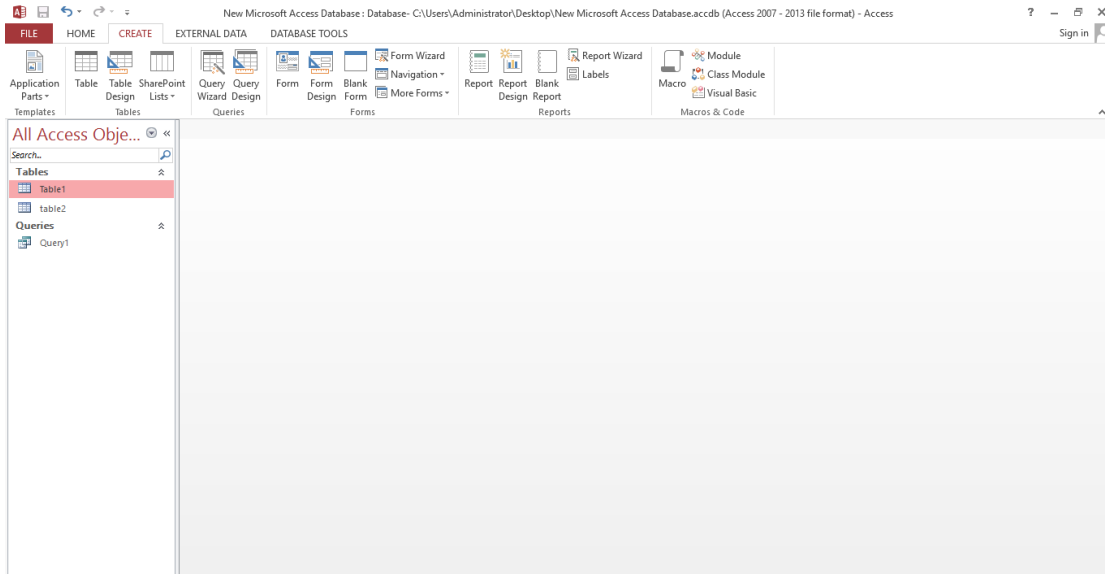


Image No. (8) shows how to create a form

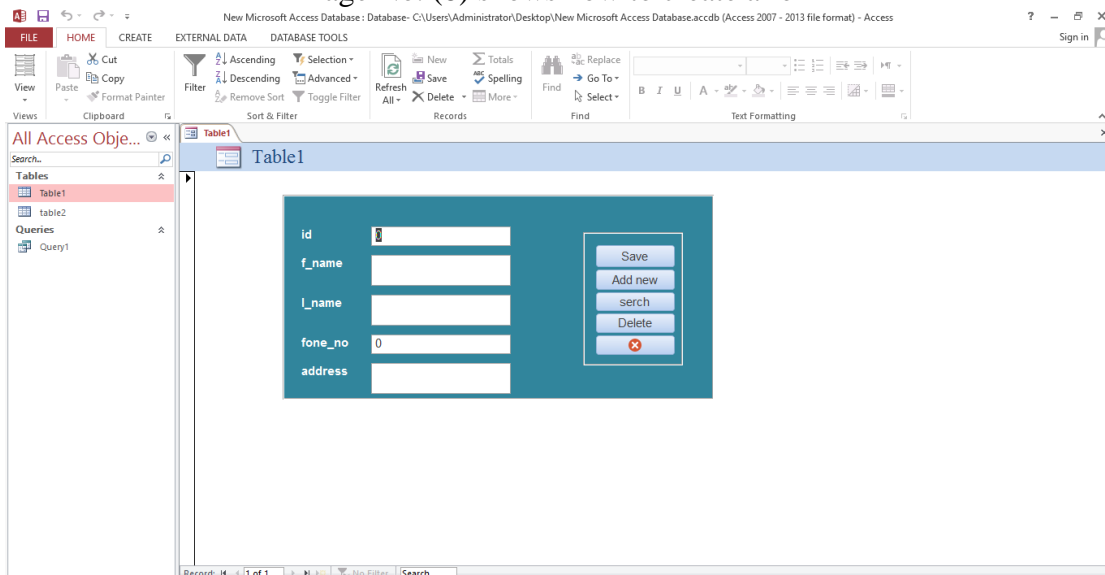
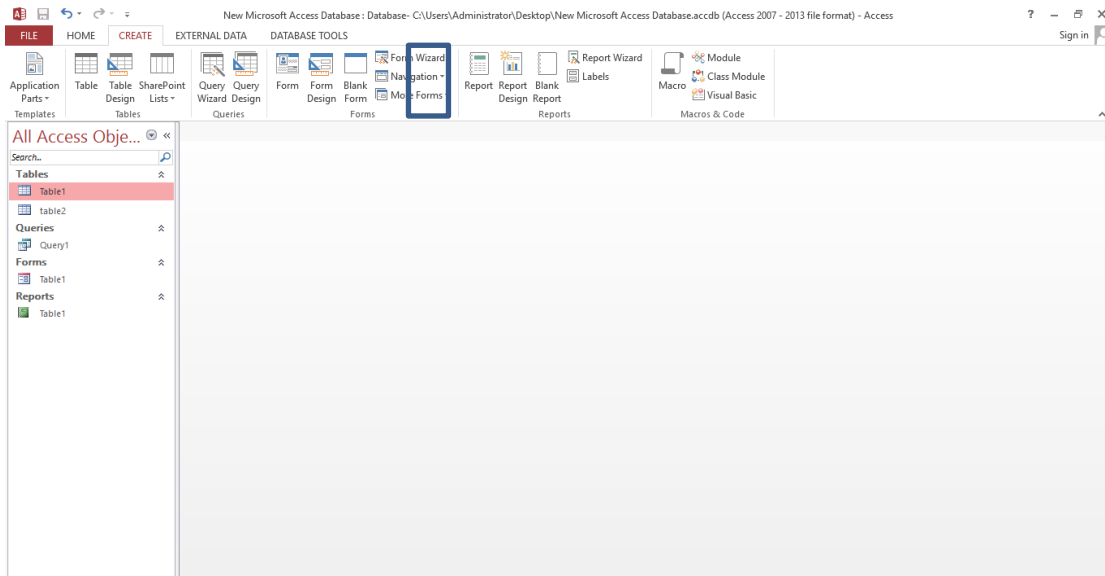


Image No. (8) shows the display of the model after designing it

#### 4. Create reports:

Reports are the final stage through which the required outputs are obtained according to the order and format required by the work. The outputs can be printed on paper. The report depends on information either from tables, queries, or forms. Pictures No. (11, 10) show how to create a report and display it after design.



Picture No. (10) shows how to create a report

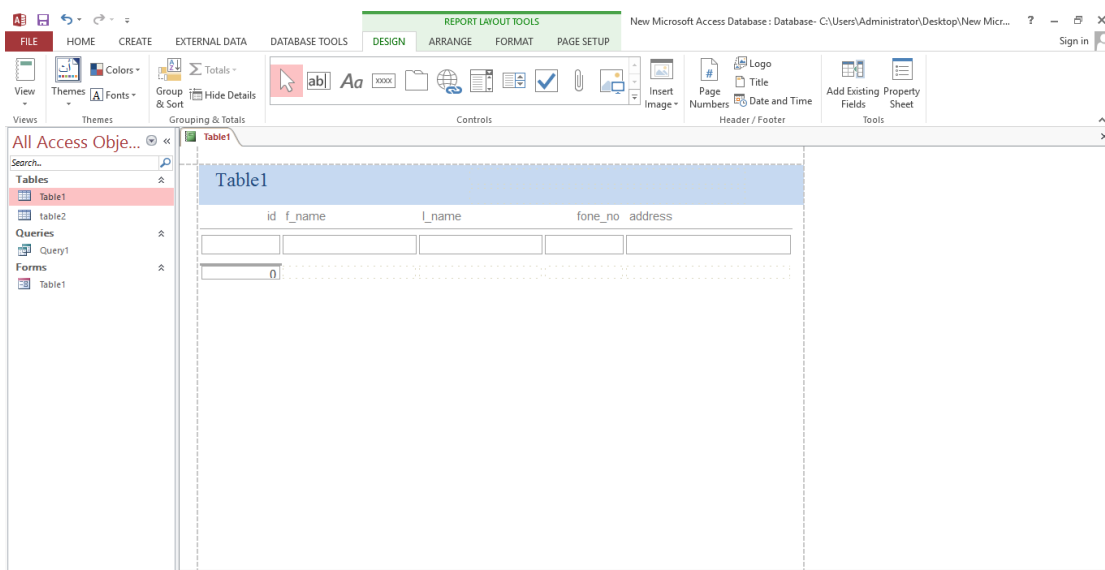


Image No. (11) shows the presentation of a report after designing it

### 5. Search procedures:

The researcher adopted the experimental work method by creating a database in the Microsoft Access 2013 program that simulates the administrative work method in government institutions. The database was created and consisted of several tables, where the tables were linked with relationships to form queries. Its purpose is to merge-common and non-recurring information between the tables to give a general concept. It is comprehensive for the single entry information, and forms have been created for all tables and queries to display the single entry information in organized graphical interfaces that allow the working employee to focus on the entry information without being affected by other entry information such as what is displayed in the tables and queries, and here the required picture of the database is completed, which was covered by Through the information shown in the tables on which the table was based.

As for the design of reports, it is the focus of the research, as the report was designed in a way that resembles the model of the official documents of the government institution, and an interface was created that contains the text of the document, which is often fixed text, taking into account the change of information, as the changed information in the report is recalled from the information found in (tables, queries). , models) for the database.

With this procedure, we can obtain the printing of official documents through this method with ease and without wasting time and effort.

### **Conclusions**

1. Microsoft Access is available on most computers in government institutions.
2. Easy to use and the database required for administrative work can be designed with ease.
3. Reduce adherence to work routine.
4. Increasing work productivity by relying on the use of Microsoft Access forms that are designed to resemble the design of official documents of a government institution, and reducing the use of Microsoft Word due to the frequent occurrence of typographical errors in it.
5. Reducing time and effort in completing transactions because all information remains stored within the database and can be retrieved when needed.
6. It does not require any time to train employees to work on the program, which was designed for administrative work as it is easy to use.

### **Recommendations**

1. Directing employees who have moderate experience to work on creating programs related to databases, since the database is the basis of all administrative work.
2. Forming a group of programmers in the government institution that will work to determine what is required for work in the government institution's departments and train employees on creating database programs.
3. Supporting programmers in government institutions and training them according to new programming capabilities to develop their skills and thus develop programming work in the government institution.
4. Education to leave the paper system and switch to a data automation system for administrative work.

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