

Usage of Data Bases of Microsoft Office in the Perspective of National Economies for the Effect of Globalization

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Abstract: *In the field of technology of information, a very important aspect is the development of databases systems, which contribute to the way of organizing and working of institutions and services offered by them. Data bases became an important component of ordinary life. Taking in consideration the fact that we want to organize the usage of data and information as easy and efficiently as possible, the interaction with a data base can begin from extracting or depositing an amount of money from the bank, searching for a book in a digital library, booking flight tickets, all the way to managing employers and the services offered from a company. In the past few years, in the field of business, the interest for information systems management grew considerably. This article proposes a brief summary of the SGBD concept, in particular, the analysis of a database designed with Microsoft Access. The data base developed with the help of Access for an economic entity, represents a way of tracking its customers.*

Keywords: *data bases, technology of information, globalization*

Introduction

In large terms we can define a data base as a collection of data which are linked in between, for a group of users and reflect a certain aspect of the real world.

A data base is a collection of centralized data, created and maintained by computers in regard of processing data through a set of specialized applications.

Specialized literature defines data bases as:

- a collection of information related to a certain subject or goal;
- a collection of tracks and files related one to each other;
- a structured ensemble of data records on accessible support for a computer in order to simultaneously satisfy a large number of users in a selective manner and efficient time;
- an assembly of elementary or structured data accessible for a community of users;
- unassembled of linked files which contain the core of an informatics system or application.

Regarding any given definition of data bases we must admit that it offers a wide range of advantages such as:

- Control over dates, with the possibility of assigning someone in control of the data bases;
- High speed for finding and updating information;
- Space efficiency; data bases require less space than regular folders;
- Flexibility, which implies modification of the data base without modifying the application software;
- Lowered redundancy obtained by sharing data between more users;
- Possibility of introducing standards regarding storage space, which allows data exchanging between companies;

- Maintaining data privacy by the politics of security (different levels of access based on the position of each user);
- Independence of data from the hardware.

Complexity and size of a data base can range from small numbers to millions of records.

Categories of operations on data bases, which users have access to are as it follows:

- Insertion of new datas – Insert;
- Deleting existing datas – Delete;
- Updating already storeddatas – Update;
- Querying of the data base – Query;
- Creating rapports or forms based on certain criteria chosen by users for finding information – Reports/Forms.

Organization dates in a data base is made according to a model based on the structures of the data base.

Thereby we can say that a data base can be structured on four different levels:

- **As a concept**– fundamental level because it describes clearly the system which will be shaped;
- **External**– representing the design of the data base made by a certain user/group of users and the linking between the design main scheme;
- **Logical**– inferior level;
- **Physical**– it includes every detail about the physical storage and the access structures used in the system.

Data model represents a pattern logically organized on which the data base is constructed. The data model does not specify the dates, nor their physical organization, but only their logical structuring.

Main conceptual models used for structuring of data bases are:

- rational model;
- network model;
- hierarchical model;
- object for object model.

1. Data Base Management System

Data base management system S.G.B.D. (Data Base Management System) represents the system of programs that allows development of data bases, introduction of records and designing applications, offering users access to dates at a high level, close to regular model; it represents an interface between the user and the operating system.

From the point of view of the operating system, a data base contains different files (main datas, auxiliary files).

S.G.B.D. offers to its users the following facilities:

- sharing of datas;
- verification of introduced datas;
- removing redundancies;
- restrictioned access;
- saving and restoration of the data base.

Any S.G.B.D. must ensure execution of the following operations on a data base:

- definition of the structure, of the fields and types of datas;

- introduction of records;
- updating the data base;
- deleting datas;
- searching existing datas in the system;
- extraction information as reports.

Categories of S.G.B.D. users:

- application programmer;
- manager of the data base;
- final users who exploit the system.

The linking between users and the operating system is made by interfaces. Main types of interfaces offered by S.G.B.D. are:

- interfaces based on menus;
- graphic interfaces;
- interfaces based on regular language;
- interfaces based on shapes;
- interfaces for data base administrators.

Most important system of gestures of data bases are:

- Microsoft SQL Server;
- Microsoft Access;
- Visual FOX PRO
- Oracle;
- MySQL.

2. Application Microsoft Access

Microsoft Access is part of the series of application designed by Microsoft and represents a SGBD for creating, administration and usage of ration data bases.

As every SGBD, Microsoft Access offers its users facilities as:

- possibility to introduce new datas in the system;
- editing existing datas;
- deleting of records;
- organizing and visualizing of records in different ways
- sharing of datas through reports, messages, e-mail, intranet or internet.

Creating a data base with Access is made by using the objects with which the application works: tables, forms, reports, queries, macrocommands, modules.



In a table, there are information stored from a data base. A data base table is similar to a calculation sheet, where the datas are stored in lines and columns.

Each row from a table represents a record. Each record consists one or more fields, which correspond to the columns.



Forms allow the user to create a personalized interface, easy to understand, in which you can introduce and edit datas from the table. They usually contain command buttons to determine datas that appear in forms and other commands for different activities.

With the help of forms interaction between users with different levels of accessibility can be controlled, the form only allowing specific operations.



Reports are used to format, to summarize, and to present data from a base in a way which can be both printed or visualized on screen, exported to another program or sent through e-mail, as attachments. A report can be used at any time and presents actual and updated data from the data base.



Queries can perform more than one function in a data base. They are used for a regular table-specific requirement. The data that someone wants to see usually spread in several tables, but queries allow to view all the information about this table in a single data sheet. Also, queries allow you to add search criteria for a "filter", displaying only the data when needed.

Certain queries are "updatable", which means that data from the table can be edited through the query. In this case, the changes are actually made in the tables, not only in the query phase.

Queries are two types of operation: selection and action.

A selection query takes the data and facilitates its usage (screen view, print, copy or use them in case of a record source for a form or report).

An action query can perform an activity with data. Action queries can be created to create a new table, adding data to the existing tables, updating them or even deleting them.



In Access, macrocommands can be considered as a simplified programming language, which you can use to add functionality to the database. They contain actions that perform routine activities, such as opening a report, running a query, or shutting down the database, and which can be automated in a single command that can be used much easier whenever needed.



Modules, like macrocommands, are used to add functionality to the database, by automating some operations. The automation is done with the help of a programming language, which is not accessible to all users.

3. How important is Microsoft Access?

Microsoft Access is a database management application used to enter, search, sort and report information. Microsoft Access is easy to use and closely integrated with Microsoft Office software applications.

Microsoft Access is a menu-based database program that includes a graphical user interface that allows novice users to enter, manage, and report their data. The data can be entered using a spreadsheet or a familiar table interface, and the program will automatically generate forms based on the data and labels entered. Routine tasks such as searches, sorting and queries can be automated with macros. Reports can be formatted by dragging and dropping fields onto a graphical interface, and the program includes many templates that can be easily edited by end users.

Personalization

Microsoft Access users can easily create and edit database queries and reports using the graphical user interface and a menu-based macro recorder to automate repetitive steps. Advanced users can

customize Access applications using the Visual Basic "VBA" programming language for applications common to all Microsoft Office applications.

Extensibility

Professional developers can develop complete and customized access applications, using more advanced languages, such as Visual Basic, Structured Query Language (SQL) and C ++. These custom applications can remain compatible with Microsoft Office and work with more powerful external systems, including Microsoft SharePoint Portal, Microsoft SQL Server or Oracle.

Benefits

Microsoft Access is important because it dramatically reduces the time it takes to exchange and use information between Microsoft Office applications. Access provides database management functionality for beginner and advanced users and is highly extensible by professional developers with enterprising systems.

4. Microsoft Access in Business

Although Microsoft Excel is easy to learn for employees, it is better for handling small data sets. The more data they manage, the greater the risk of introducing human errors that can have major consequences.

Microsoft Access offers one of the most flexible and simple DBMS solutions available on the market. In simple terms, Microsoft Access is a popular information management tool that helps to store all kinds of information for reporting, analysis and reference. With Microsoft Access, data can be managed more efficiently and large amounts of information can be analyzed.

Using Microsoft Access for business is beneficial as it ensures that everyone is on the same page. When a page change is made, everyone in the work team will notice these changes on their own workstation. Microsoft Access organizes information so that all information about a client is connected.

Unlike Excel, you just need to change your customer information in one place so that all related things in the Access database reflect the change. In fact, all the information in the database is saved in a single file. This not only saves you the time from changing each file that refers to a client, but also prevents inconsistencies in the database.

If there are many clients to manage, it is desirable to keep the contact information in a well-organized database. One of the easiest ways to create a client database is with MS Access. This can be accessed at any time and results in a lower operating cost than if a specialized platform made by another developer would to be used.

Microsoft Access allows you to encrypt and protect password files so that your business information about clients or other confidential information. Protected information gives your company the ability to control who can access data. Excel spreadsheets do not offer the same level of security.

In order to use Microsoft Access, any company needs to invest time and money to train employees in using the Access application. In the long term, it is proven that this investment saves time and money in subsequent periods.

Conclusions

In recent years, many companies have realized the importance of using Microsoft Access. However, there are still some companies wondering how Microsoft Access improves productivity and efficiency. It is important to understand that Microsoft Access is available with the popular Microsoft Office Professional Suite. Therefore, your company does not require additional database software. The company only needs to purchase Microsoft Office Professional Suite to meet all needs and

requirements. Microsoft Access is more accessible for maintenance and deployment than larger database systems such as SQL Server or Oracle.

When properly designed, Microsoft Access databases can be ported to Oracle or SQL Server. This is extremely important when you want to start a small??? one or develop a pilot database system and migrate to some larger database management systems.

A Microsoft Access database system can easily be uploaded on a website for remote user access. The Microsoft Access data access page can allow you to develop simple screens. Full functionality and control can be implemented with Active Server Page programming.

Examples of using Microsoft Access when creating databases:

- managing the clients of a company;
- managing invoices from and to customers;
- management of students from a school;
- management of tourists and vacation offers from a travel agency;
- management of patients and medical services provided within a medical clinic;
- managing the book fund from a library;
- managing the stock of goods in a store;
- evidence of the occupancy of the rooms within a hotel;
- the record of passing and passing the examinations by the students of a faculty.

Supplementary recommended readings

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