ЭМПИРИКАЛЫҚ ЗЕРТТЕУЛЕР
ЭМПИРИЧЕСКИЕ ИССЛЕДОВАНИЯ

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USING MS ACCESS 2007 PROGRAM TO CREATE DATABASE FOR LIBRARY

Abstract

The article is considered to be based on the database access library with access to Access. The information program is a practical part of the data base and is a useful tool for the user. The base data is stored and updated on the computer, and the database administrators are using the easy-to-use interface style software.

Keywords: *database, objects, pedagogical condition.*

Introduction

Creating the structure for a database is easy. But an empty database is no more useful than an empty document or worksheet. It is only when you fi ll, or populate, a database with data in tables that it starts to serve a purpose. As you add queries, forms, and reports, it becomes easier to use. If you customize it with a switchboard or custom categories and groups, it moves into the realm of being a database application.

Microsoft Office Access 2007 takes a lot of the difficult and mundane work out of creating and customizing a database by providing database applications in the form of templates that you modify and fill with your own information. Access 2007 also provides templates for common types of tables, and improved ways to import content from other applications to instantly create and populate tables. Using one of these methods to create something that is similar to what you need and then modifying your creation is generally easier than creating the same thing manually. If none of the templates or import methods match your needs, you can create tables manually—another process that has been improved in this version of Access.

A few years ago (the distant past in computer time), creating a database structure involved first analyzing your needs and then laying out the database design on paper.

You would decide what information you needed to track and how to store it in the database. Creating the database structure could be a lot of work, and after you created it and entered data, making changes could be difficult. Templates have changed this process.

Committing yourself to a particular database structure is no longer the big decision it once was. By using pre-packaged templates, you can create a dozen database applications in less time than it used to take to sketch the design of one on paper. Access templates might not create exactly the database application you want, but they can quickly create something very close that you can tweak to fit your needs.

Materials and Methods

In this exercise, you will open and explore a database application based on the Contacts template. This template is typical of those provided with Microsoft Office Access 2007, in that it looks nice and demonstrates a lot of the neat things you can do in a database, such as adding command buttons and embedded macros to link to other Office applications or Windows commands. Due to the complexity of these templates, you probably shouldn't try to modify them until you are comfortable working with simpler tables and forms in Design view. There are no practice files for this exercise.

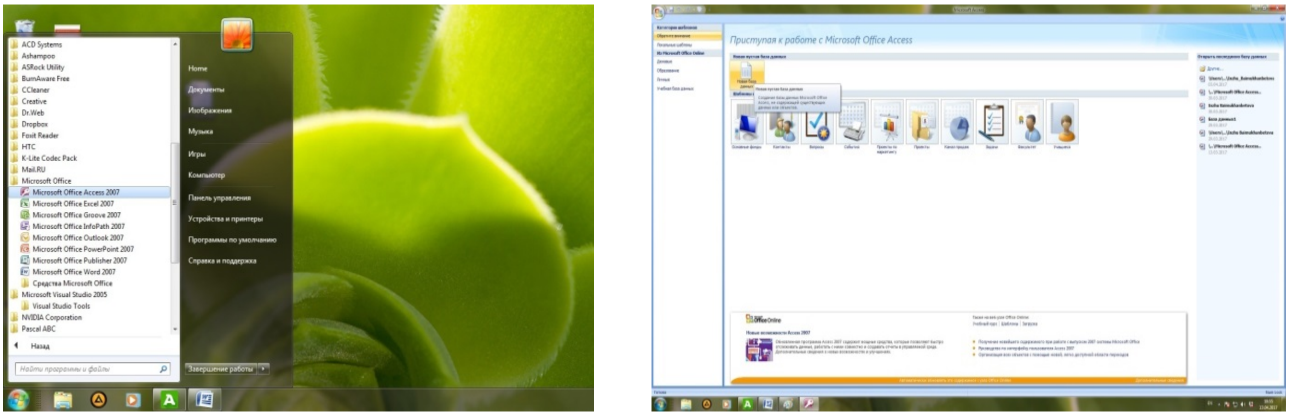
➢ **Objective:** Studying the technology of creating a database on a Access computer program.

➢ **Tasks**: 1) Working with objects:

- Tables
- Queries
- Forms
- Macros

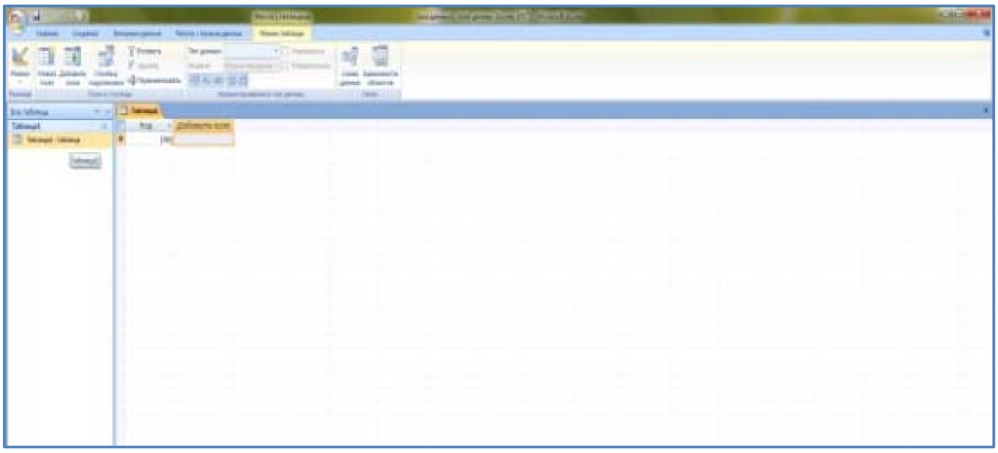
2) Creating "Main Switchboard"

A description of the template appears on the right side of the program window, along with a box in which you can assign a name to the database and a folder button to browse to the place you want to store the database.



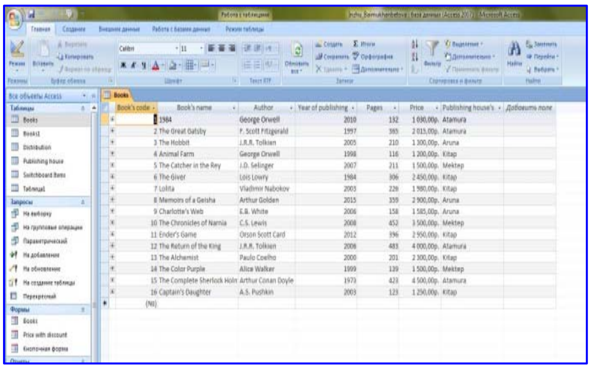
Picture1. Open MS Access 2007

Access briefly displays a progress bar, and then your new database opens

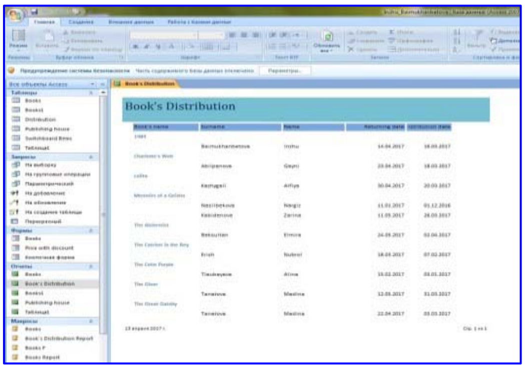


Picture 2. The constructor of table

In the previous exercise, you created a contact management database application based on an Access 2007 template. The database had all the tables, forms, reports, and code needed to import, store, and use basic information about people. But suppose you need to store different types of information for different types of contacts. For example, you might want to maintain different types of information about employees, customers, and suppliers. In addition to the standard information–such as names, addresses, and phone numbers–you might want to track these other kinds of information:


Работа с таблицами
Inzhu_Beimukhanbetova : база данных (Access 2007) - Microsoft Access
Books

Book's code	Book's name	Author	Year of publishing	Pages	Price	Publishing house's	Добавить поле
1	1984	George Orwell	2010	132	1 030,00р.	Atamura	
2	The Great Gatsby	F. Scott Fitzgerald	1997	365	2 015,00р.	Atamura	
3	The Hobbit	J.R.R. Tolkien	2005	210	1 300,00р.	Aruna	
4	Animal Farm	George Orwell	1998	116	1 200,00р.	Kitap	
5	The Catcher in the Rey	J.D. Selinger	2007	211	1 500,00р.	Mektep	
6	The Giver	Lois Lowry	1984	306	2 450,00р.	Kitap	
7	Lolita	Vladimir Nabokov	2003	228	1 980,00р.	Kitap	
8	Memoirs of a Geisha	Arthur Golden	2015	359	2 900,00р.	Aruna	
9	Charlotte's Web	E.B. White	2006	158	1 585,00р.	Aruna	
10	The Chronicles of Narnia	C.S. Lewis	2008	452	3 500,00р.	Mektep	
11	Ender's Game	Orson Scott Card	2012	396	2 950,00р.	Kitap	
12	The Return of the King	J.R.R. Tolkien	2006	483	4 000,00р.	Atamura	
13	The Alchemist	Paulo Coelho	2000	201	2 300,00р.	Kitap	
14	The Color Purple	Alice Walker	1999	129	1 500,00р.	Mektep	
15	The Complete Sherlock Holm	Arthur Conan Doyle	1973	423	4 500,00р.	Atamura	
16	Captain's Daughter	A.S. Pushkin	2003	123	1 250,00р.	Kitap	
(№)							



Book's Distribution

Book's name	Surname	Name	Returning date	Distribution date
1984				
	Beimukhanbetova	Inzhu	14.04.2017	18.03.2017
Charlotte's Web				
	Abilpanova	Gayni	23.04.2017	18.03.2017
Lolita				
	Kazhygali	Aifiya	30.04.2017	20.03.2017
Memoirs of a Geisha				
	Nasilbekova	Nargiz	11.01.2017	01.12.2016
	Kabidenova	Zarina	11.05.2017	26.03.2017
The Alchemist				
	Beksultan	Elmira	24.05.2017	02.04.2017
The Catcher in the Rey				
	Erish	Nurbol	18.04.2017	07.02.2017
The Color Purple				
	Tleubayeva	Alina	15.02.2017	03.01.2017
The Giver				
	Tanatova	Madina	12.05.2017	31.03.2017
The Great Gatsby				
	Tanatova	Madina	22.04.2017	03.03.2017

13 апреля 2017 г.

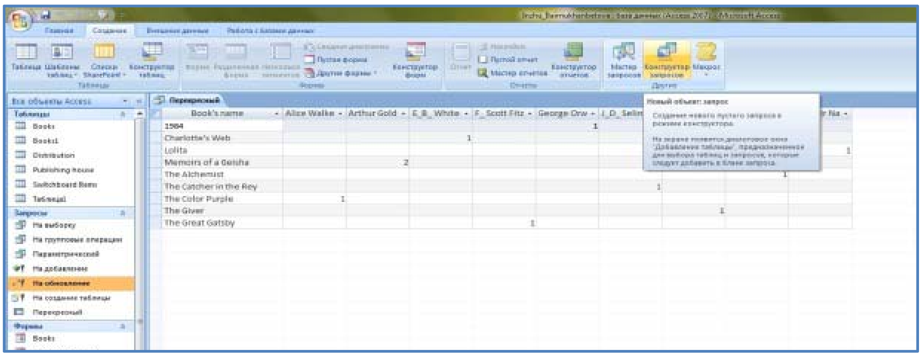
Стр. 1 из 1

Picture 3. The table and report

When you refine a table's structure by adding fields and changing field properties, you affect the data that is stored in the table. But sometimes you will want to reorganize the table itself to get a better view of the data. If you want to look up a phone number, for example, but the names and phone numbers are several columns apart, you will have to scroll the table window to get the information you need. You might want to rearrange or hide a few columns to be able to see the fields you are interested in at the same time.

You can manipulate the columns and rows of an Access table without affecting the underlying data in any way. You can size both rows and columns, and you can also hide, move, and freeze columns. You can save your table formatting so that the table will look the same the next time you open it, or you can discard your changes without saving them.

In this exercise, you will open a table and manipulate its columns and rows.



Новый объект: запрос

Создание нового пустого запроса в режиме конструктора.

На экране появится диалоговое окно "Добавление таблицы", предназначенное для выбора таблиц и запросов, которые следует добавить в бланк запроса.

Book's name	Alice Walke	Arthur Gold	E_B_White	F_Scott Fitz	George Orw	J_D_Selin	[illegible]	[illegible]	r Na
1984					1				
Charlotte's Web			1						
Lolita									1
Memoirs of a Geisha		2							
The Alchemist								1	
The Catcher in the Rey						1			
The Color Purple	1								
The Giver							1		
The Great Gatsby				1					

Picture 4. The Query

A database that contains the day-to-day records of an active company is useful only if it is kept current and if the information stored in it can be found quickly. Although Microsoft Office Access 2007 is fairly easy to use, entering, editing, and retrieving information in Datasheet view is not a task you would want to assign to someone who's not familiar with Access. Not only would these tasks be tedious and inefficient, but working in Datasheet view leaves far too much room for error, especially if details of complex transactions have to be entered into several related tables. The solution to this problem, and the first step in the conversion of this database to a database application in which you can efficiently manage information, is to create and use forms.

A form is an organized and formatted view of some or all of the fields from one or more

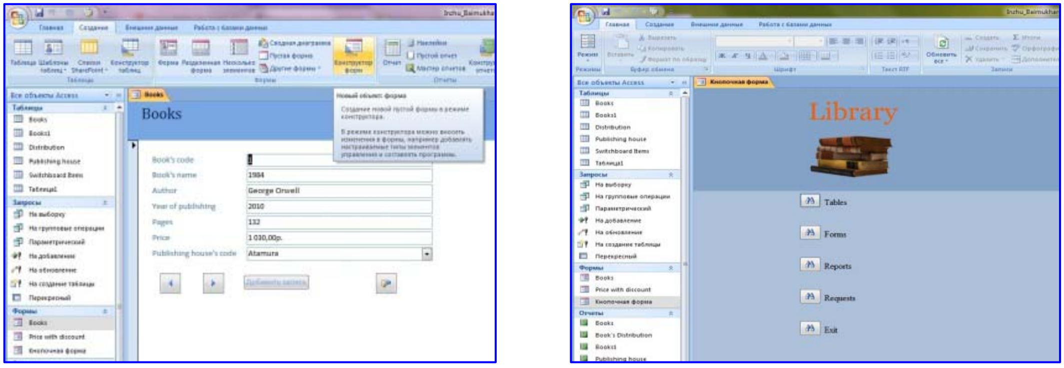
tables or queries. Forms work interactively with the tables in a database. You use controls in the form to enter new information, to edit or remove existing information, or to locate information.

Like printed forms, Access forms can include label controls that tell users what type of information they are expected to enter, as well as text box controlsin which they can view or enter information. Unlike printed forms, Access forms can also include a variety of other controls, such as option buttonsand command buttonsthat transform Access forms into something very much like a Windows dialog box or wizard page.

Results

As with other Access objects, you can create forms manually or with the help of a wizard.

It is best to create navigational and housekeeping forms, such as switchboards, manually in Design view. However, you should always create forms that are based on tables by using a wizard, and then refine the form manually–not because it is difficult to drag the necessary controls onto a form, but because there is simply no point in doing it manually.



Books

Book's code
Book's name: 1984
Author: George Orwell
Year of publishing: 2010
Pages: 132
Price: 1 030,00р.
Publishing house's code: Atamura

Picture 5. The forms

Discussion

The preceding scenarios may be used to illustrate some problems that occur in traditional file-oriented systems, as well as the objectives of database systems. These objectives are derived from the overriding goal of managing data as an important organizational resource. For each objective, there is a corresponding problem arising in a file-oriented approach. Database system objectives and problems in file-oriented systems are discussed together. Database objectives include providing flexible access to information, maintaining data integrity, protecting the data from destruction and unauthorized use, providing data shareability and relatability, reducing data redundancy (duplicated data), making data independent of applications programs, standardizing data item definitions, and increasing the productivity of information systems personnel. Each of these objectives is discussed fully in the following sections.

Access flexibility allows for easy retrieval of selected items in a database and presentation of that data in a variety of formats. This flexibility is one of the most important reasons for having database management systems in the first place--to have information readily available for managerial purposes. The part of the system that provides for communication with the person using the system is often called the user interface.In older, conventional programming environments (such as that of the Conventional National Bank, where COBOL was in use), the only user interface provided is for programmers. In such environments, special programs must be written to perform even simple tasks such as listing those people whose names and addresses appear in two or more files. Most database packages have a special query language designed to perform such tasks with a few simple commands. Query languages are much easier to learn and use than programming languages, and they are suitable for use by many managers and other end-users who have neither the time nor the inclination to learn to program.

Conclusions

Byer's portfolio management system is an example of a system that provides flexible access. The retrieval command given previously is an example of a query in the Structured Query Language (SQL), the standard query language for relational database systems. The portfolio management system also uses menus and fill-in-the-blank operations to guide unfamiliar users through the system. Experienced users can bypass these by entering commands directly. Also, an on-line "help" facility is available to give more complete explanations of system usage. Although query languages are easy to learn and use, they lack the power and versatility of programming languages. To make up for this deficiency, most database management systems also provide a special data manipulation language consisting of commands that may be embedded in applications programs to add, retrieve, or change data values. Some packages allow SQL statements to be used in programs; others use the data manipulation language designed by various subcommittees of the Conference on Data and Systems Languages (CODASYL), which is discussed in Appendix C. Still other 1-10 packages have their own proprietary language.

Most database management systems have a language that is intermediate in power between query languages and data manipulation languages. Such languages are called report generators**,** because they are designed to create printed reports. Report generators have special commands for creating headings, titles, rows, columns, sums, and other elements frequently found in reports. The programming of reports is often greatly simplified by using such facilities.

Many database packages also have a screen generator to help analysts write routines to create forms on a terminal screen. Users fill in these forms to retrieve, modify, or add data to the database. These facilities simplify the process of capturing data and making it readily accessible to users.

Finally, database management systems usually work closely with the host operating system to provide rapid and flexible access to the database. Some packages have their own access routines, but most rely on the routines of the host operating system.

Data integrity ensures that data values are correct, consistent, and current. This is a critical aspect of information management. The problem that Tia had in getting notices of payments due is one example of a lack of data integrity. Even more critical to a bank is the need to maintain accurate account balances. How long would a bank survive if it credited deposits to the wrong account or reported incorrect account balances? Managers insist on accurate data for decision-making, and often they will not use information from a computer system that has produced incorrect data. Such misgivings may be well founded. Suppose you were a portfolio manager using Byer's system and it indicated that the price of a stock was going down, and you sold it--when it was actually still going up. In the future, you would probably be suspicious of the data in that system, if you even used it at all.

One of the best ways to assure data integrity is to make sure that the data values are correctly entered in the first place. This may be done through a variety of methods, such as carefully setting up manual procedures for originally capturing the data, or programming the system to check the reasonableness of data values when they are entered into the machine. For example, you may know that hourly wages in a payroll system never exceed $30.00 per hour. The data input program should check to see that hourly wages entered never exceed this value.

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ЕРСУЛТАНОВА, З.П., АЙТЕНОВА., А.А.

MS ACCESS 2007 БАҒДАРЛАМАСЫН КІТАПХАНА АҚПАРАТТЫ МӘЛІМЕТТЕР ҚОРЫН ЖАСАУ ҮШІН ҚОЛДАНУ

Мақалада Access компьютерлік бағдарламасын қолданып, кітапхана деректер қорын жобалау сөз етіледі. Деректер қорының практикалық маңыздылығы көрсетіліп, қолданушыға ыңғайлы ақпараттық программалық құрал жасалады. Деректер қоры компьютер жадысында сақталып, жаңартылып отырады және қолданушыға программаның батырмалы формасы деректер базасын басқаруды жеңілдетеніні жазылған.

Мақаланың мәнін ашатын сөздер: *ақпараттық құзыреттілік, модель, педагогикалық шарттар.*

ЕРСУЛТАНОВА, З.П., АЙТЕНОВА, А.А.

ИСПОЛЬЗОВАНИЕ ПРОГРАММЫ MS ACCESS 2007 ДЛЯ СОЗДАНИЯ БАЗЫ ДАННЫХ ДЛЯ БИБЛИОТЕКИ

В статье рассматривается создание базы данных библиотеки с использованием программного обеспечения Access. Показана практическая значимость базы данных и разработана удобная для пользователя информационная программа. База данных хранится и обновляется в памяти компьютера, и управлять базами данных пользователю легко благодаря удобному интерфейсу кнопочной формы программы.

Ключевые слова: *информационная компетентность, модель, педагогические условия.*

UDC 591.52

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LOOP MIGRATION LENGTHENS TRAVEL DISTANCE AND INCREASES POTENTIAL RISKS FOR A CENTRAL ASIAN, LONG-DISTANCE, TRANS-EQUATORIAL MIGRANT, THE RED-FOOTED FALCON

Abstract

Geolocator, ringing and observational data together demonstrate that Red-footed Falcons from northern Kazakhstan have a clockwise loop migration that begins with a long and unusual westward trek around eastern Europe's large inland seas before continuing to extreme southern Africa. Return migration is farther west and requires crossing two major migratory barriers: the Sahara and the Mediterranean.

The loop migration we describe requires an extensive longitudinal movement, exposes central Asian Red-footed Falcons to multiple desert, mountain and marine crossings, and, at outbound and return Mediterranean bottlenecks, crosses sites where raptor shooting is common.

Keywords: *Red-footed Falcon, geolocator, Kazakhstan, loop migration.*