

Green associates is a seller of many games – design a computer based system essay...

[Technology](#), [Computer](#)



Mr. Green of Green Associates is a seller of many games, and at the moment archives all the information about the price of each game, the producer, and the genre using a pen and paper technique, which is to simply write on table in columns the information. This is tiresome and can be full of erroneous records as it is down to the human factor to make sure all data is correct, because of this it can be unreliable, it is not only tiresome to write all the information, but it also extremely hard to find a certain piece of information. The solution for this is obviously a computerized solution, which is to create a database in Access, which would allow for easy searching of data, and would allow for many other extra features, such as data validation which would prevent the entry of invalid data.

#### Reasons for selecting the chosen approach A/B

I have chosen to use Microsoft Access as it easily the most widespread database software in the world, and therefore the most compatible. It is extremely well suited for this as has many special features, in particular, I will be making use of Access's command buttons, to create a user friendly menu allowing the user to select different functions with ease. I will also be implementing data entry forms using Microsoft Access's " Forms" facility. Printing using Access is just as easy as the user must simply click on the print symbol in the toolbar.

#### Possible alternative strategy for solving the problem B

There are many other alternate strategies for solving this problem, for example, one could use Excel's table's and input data in a similar approach

that Mr. Green is doing know, which is to write all the names of the other companies and their games, and prices, and update whenever necessary. This is however much slower, harder for a user to understand, no queries, and no graphical “ forms” database.

The objectives of the solution C

- 1) To create a databases system which stores information, such as games, prices, and developers in an easy to use format.
- 2) There should be “ forms” so that a non-computer literate person can easily learn how to use, and put data in efficiently.
- 3) The system should be able to detect which entry’s are obviously incorrect, such as entering a price which is obviously unrealistic, such as 99. 99.
- 4) The database should be easy to use to create listing that the user specifies, such as any games priced from 2. 99 to 9. 99 in (for example) decreasing order.
- 5) The system must be able to produce a list of games from a particular theme, such as strategy or action, and display them alphabetically.
- 6) The system must be able to find a specific record quickly, for example if a person want to look up information about a specific game, he/she can type it into a text box which will search the database and then produce it for the person to see.

7) When creating a new entry it should be as easy as possible, with drop down lists, and ways of verifying the data to be correctly typed.

8) It must be possible to easily navigate through the screen by using simple buttons that a normal computer user can understand.

9) It must be able to generate reports, which can generate tables with specific portions of the data already in it, which the user can easily understand.

## Chapter 2: Analysis

### Hardware & Software

#### Hardware E1

The computer that I am using for this project is a Pentium III 600 CPU, with 128 megabytes of memory with a 15" TFT screen, and has 19 gigabytes of storage space on the hard disk.

#### Reasons for choice of hardware E1

There is no general reason why I chose this specific machine, Microsoft Access would run on machine of lower power, such as a computer with 200 MHz, 32 megabytes of RAM and only 200 megabytes free on the Hard disk. I have chosen this because it is easily able to operate Microsoft Access quickly and allows maximum productivity. A colour monitor is essential for the creation of a good " form" in database that contains colour that would be helpful for a less computer literate person to use.

## Software E2

I used a Windows 98 computer with Microsoft Access installed on it to create the database.

## Reasons for choice of software E2

I chose Microsoft Access to create the database, as this is by far the quickest, most widely accepted way to create databases. It is also one of the world's leading database programs as such is the most compatible, the most widely used, and there is a large amount of resources, such as books, and online documentation's, on how to use it.

## Input

### Data requirements E3

The data requirements are on table " Games", the title of the game, the publisher, genre, Cat No, and the price. The " Publishers" table requires, the name of the publisher, addresses 1, 2 and 3, the post code, and the telephone number.

### Data collection E3

Data can be collected in a variety of ways, over the phone with other shops, using the internet and simply typing into a search engine " price" would reveal prices from various shops.

### Data entry E3

Data will be mainly entered into the database via a keyboard, however the mouse will also be used, for example when selecting from a drop down menu

Error checking E4

Data validation will be used to prevent the entry of obviously incorrect data, for example someone could accidentally enter 99. 99 or 9. 999 instead of 9. 99, which would produce an error, prompting the user to correct it.

Data manipulation/processing

Software features that will be used

Data to be stored in tables

This will allow the user to input data not worrying about the order it is in, knowing that later various queries will later sort in into an appropriate way.

Tables to be linked

This will allow the data to be entered once by the user, for example price, and be used in two (or more) different tables.

Data to be added/edited using forms

This is extremely useful for a user that is not computer literate, as it is extremely easy to use.

Data entry by drop-down list

This will be extremely useful for non computer literate people to easily select a genre for the game, this will also be useful for preventing erroneous data being entered.

#### System navigation using buttons

This will be useful for searching through the data, especially if the user does not understand computer very well. For example a button with the function to search through the entire database for a specific record could be made.

#### Filtering & sorting using queries

This can be used to create a list of a range of prices, for example, Mr. Green can make the database list all prices from 6. 99 to 15. 99.

#### Printed output using reports

This can be used for easy reading in an output a human can understand.

#### Output

The output font will be Times New Roman, which is widely used, and is considered a standard, all money entries will be displayed to two decimal places with a sign, while other numbers will not. The company logo will be displayed on the top of the report but not again, as this would waste too much ink. For queries the user will be prompted for a range or a keyword, e. g. for the price range query the user is first asked for a minimum price and then a maximum, all prices that are found in between and equal to the values specified will be displayed. Menus are also used to display in a user

friendly way buttons that the user can press to bring up the various queries and the data entry forms. Also there will be easy to user data entry forms.

## System Flowcharts

Creation of database Data entry Running a query

## Backup

It is extremely wise to save work every so often in case of system failure or some other form of data loss. However it is also advisable for Mr. Green to save his work to a different medium other than the hard disk in case of virus attack, hard drive failure, or simply human error. To do this he must enter the explorer. exe and drag and drop the file from its original location to the A: (floppy drive default), or the D: drive (CD drive default) I have recommended that Mr. Green does one of two things.

1. He keeps a backup of his work on two floppy discs (floppy discs are notorious for being unreliable, and easy to damage), and that he keeps them safely in two different places. I have also recommended he buys a program called WinRAR for compression purposes, it is also useful as you can put a “recovery record” which in the case of data loss the data can be recovered automatically as long as the computer can access the disk.
2. He buys a CD Writer, as it is now possible for a home user to possess a CD Writer as it has recently become cheap enough for someone to buy, and records a backup to a CD-R or a CD-RW, and keep it in a CD case.



I have recommended that he saves a backup every time he edits the database, this is easily the safest way.