

ABSTRACT

Our project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. Our software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. User can search availability of a doctor and the details of a patient using the id.

The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

PROBLEM DESCRIPTION

The purpose of the project entitled as “HOSPITAL MANAGEMENT SYSTEM” is to computerize the Front Office Management of Hospital to develop software which is user friendly, simple, fast, and cost – effective. It deals with the collection of patient’s information, diagnosis details, etc. Traditionally, it was done manually.

The main function of the system is to register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully System input contains patient details, diagnosis details; while system output is to get these details on to the CRT screen.

NEED

1. Efficiently maintains the details about the patient
2. Simultaneously updates changes made to any data, item in the entire data base.
3. It is faster than manual system

SYSTEM STUDY

INTRODUCTION

The goal of any system development is to develop and implement the system cost effectively; user-friendly and most suited to the user's analysis is the heart of the process. Analysis is the study of the various operations performed by the system and their relationship within and outside of the system. During analysis, data collected on the files, decision points and transactions handled by the present system. Different kinds of tools are used in analysis of which interview is a common one.

INITIAL INVESTIGATION

The first step in system development life cycle is the identification of need of change to improve or enhance an existing system. An initial investigation on existing system was carried out. The present system of hospital is completely manual. Many problems were identified during the initial study of the existing system.

EXISTING SYSTEM

System analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is – What all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system.

During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram, interviews, etc. training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the framework of the solution. Then the proposed system should be analyzed thoroughly in accordance with the needs.

System analysis can be categorized into four parts.

- System planning and initial investigation
- Information gathering
- Applying analysis tools for structured analysis
- Feasibility study

- Cost/benefit analysis

PROPOSED SYSTEM

The drawback of the existing system is that it is very difficult to retrieve data from case files. It is difficult to handle the whole system manually and it is less accurate and to keep the data in case files for future reference because it may get destroyed. Moreover it is very difficult to retrieve data. Redundancy of data may occur and this may lead to the inconsistency. The manual system is so time-consuming.

The proposed system is very easy to operate. Speed and accuracy are the main advantages of proposed system. There is no redundancy of data. The data are stored in the computer's secondary memories like hard disk, etc. it can be easily receive and used at any time. The proposed system will easily handle all the data and the work done by the existing systems. The proposed systems eliminate the drawbacks of the existing system to a great extent and it provides tight security to data.

ABOUT OPERATING SYSTEM

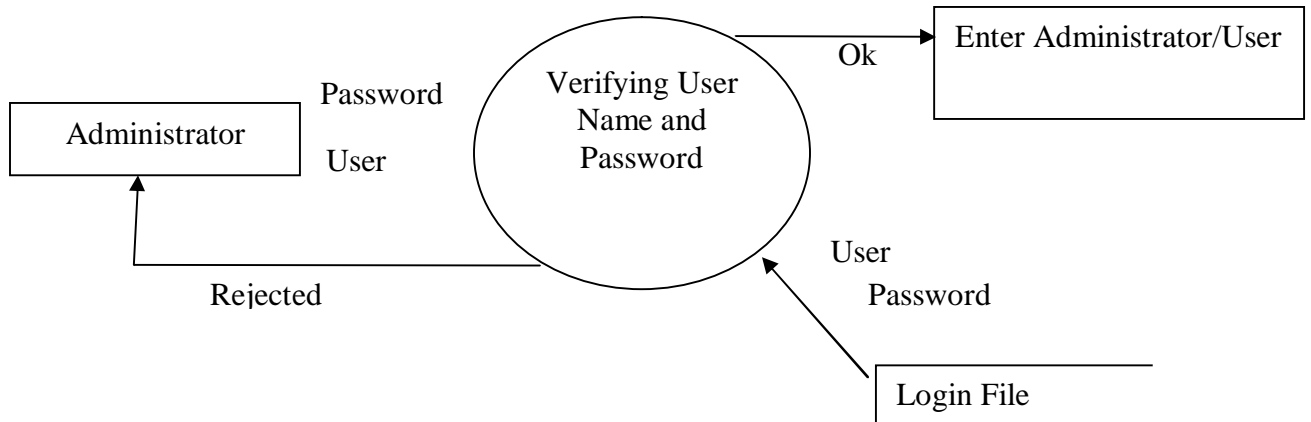
Windows XP is a line of operating systems developed by Microsoft for use on general purpose computer systems, including home and business desktops, notebook computers and media centers. The letters 'XP' stand for experience. Windows XP is the successor to both

Windows 2000 and Windows Me and is first consumer oriented operating system produced by Microsoft to be built on the Windows NT kernel and architecture.

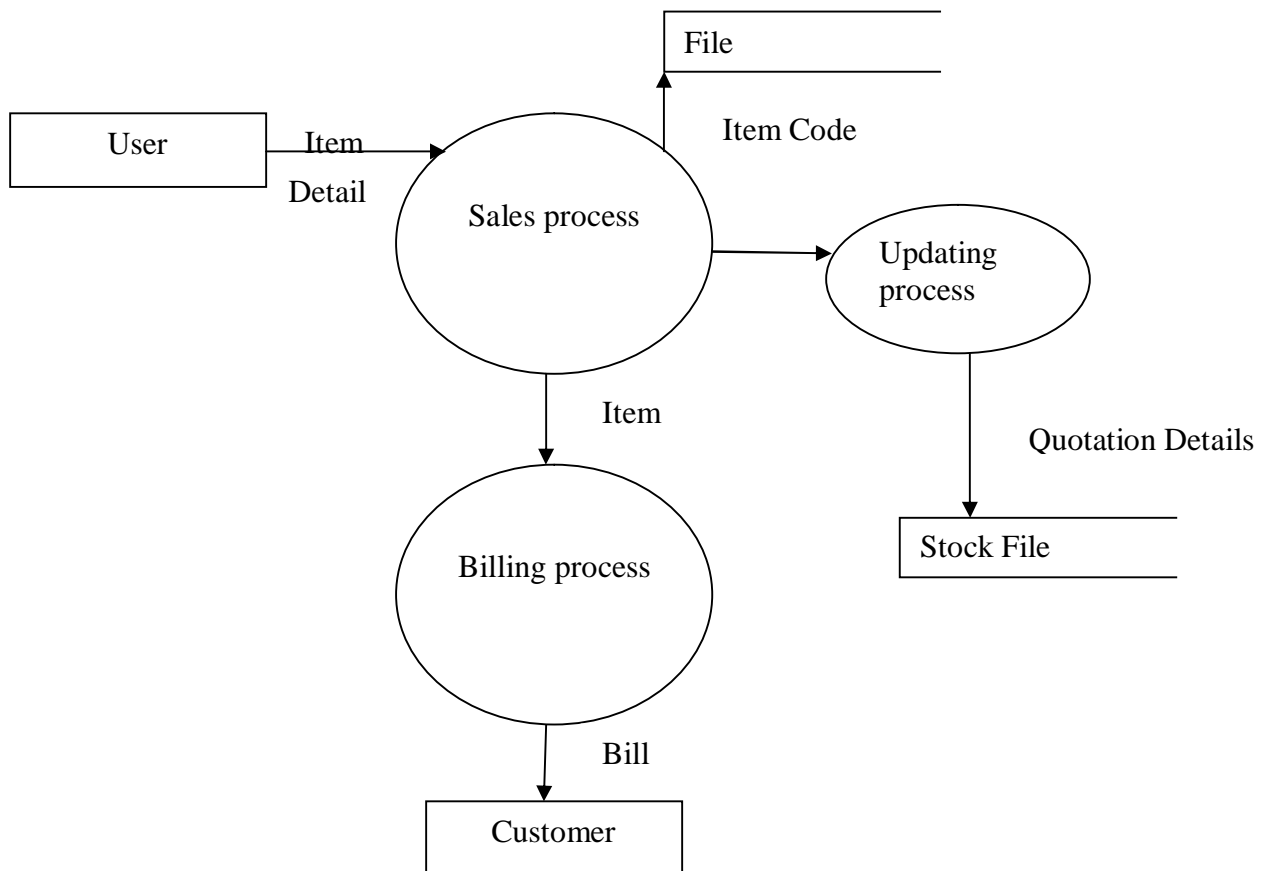
The most common editions of operating systems are Windows XP home edition, which is targeted at home users, and Windows XP professional, which has additional features such as, support for Windows server domain and two physical processors and is targeted at power users and business clients. Windows XP Tablet PC edition is designed to run the ink-aware Tablet PC platform. Two separate 64 bit versions of Windows XP were also released, Windows XP 64 bit edition for IA-64(Itanium) processors and Windows XP Professional x64 edition for x86-64 processors.

DATA FLOW DIAGRAMS

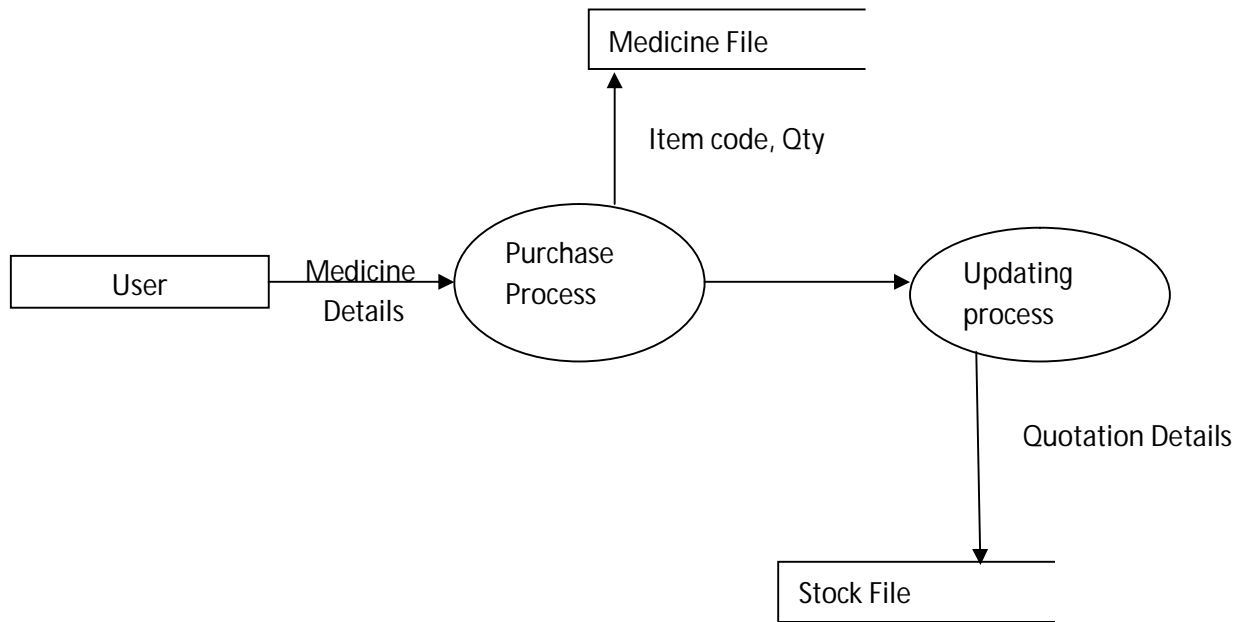
DFD for Login Module



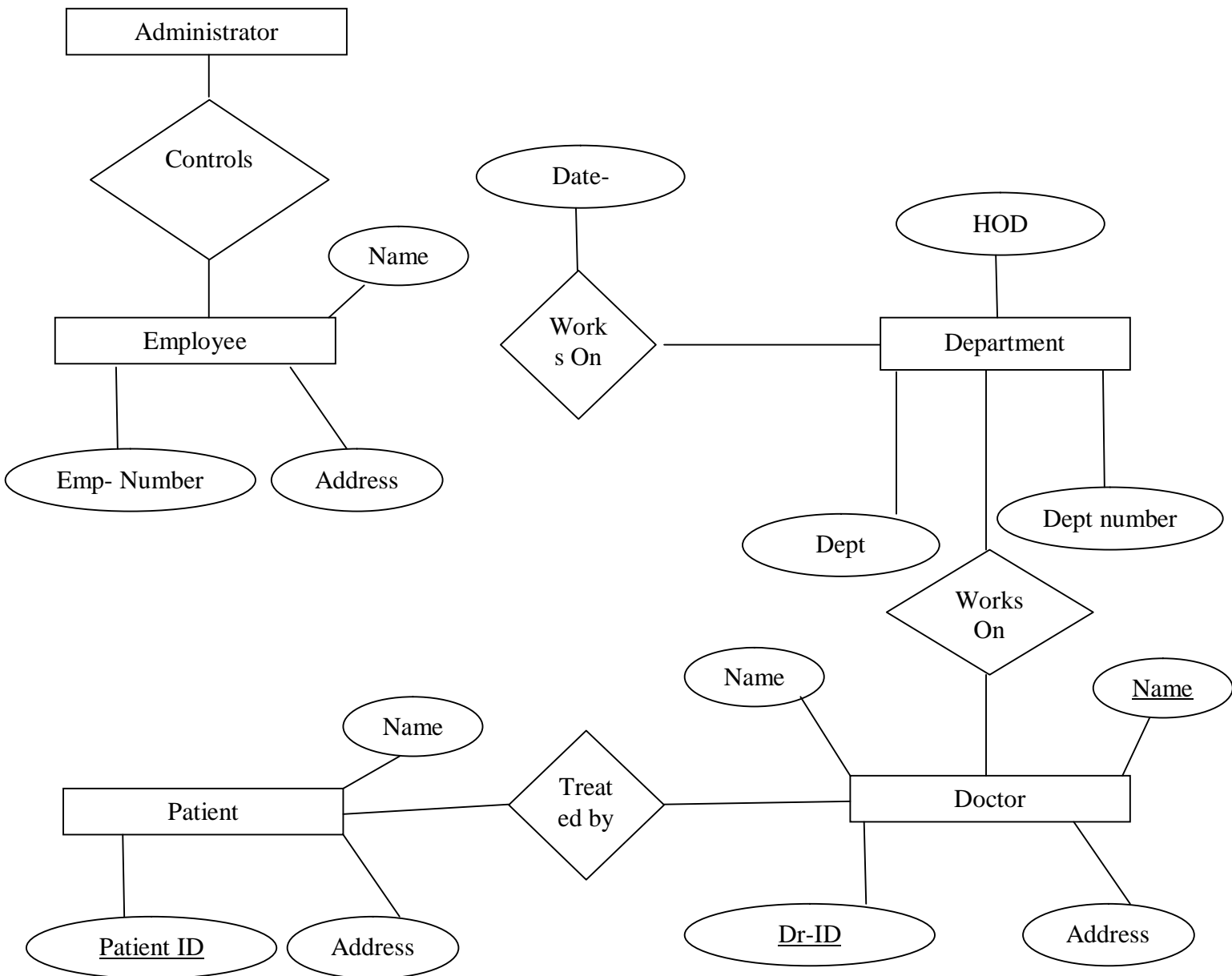
DFD for Billing process



Purchase Details DFD.



ENTITY RELATIONSHIP DIAGRAMS



SOFTWARE DESCRIPTION

Microsoft Visual Basic 6.0

Visual Basic 6.0 is Microsoft's latest version of the Visual Basic Programming language. Although writing programs can be a tedious chore at time. Visual Basic reduces the effort required on your part, and makes programming enjoyable. Visual Basic makes many aspects of programming as simple as dragging graphics objects on to screen with your mouse.

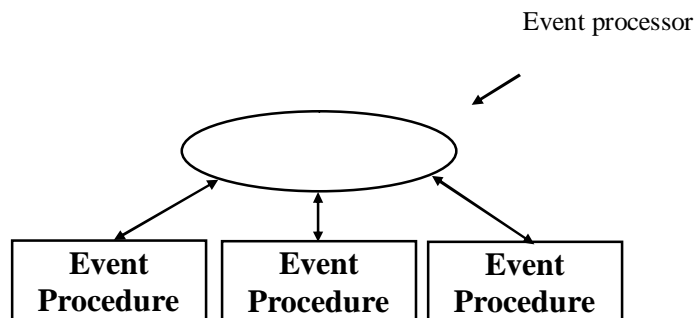
Visual Basic 6.0 is more than just a programming language; the secret to Visual Basic is in its name" Visual". With to days Windows Operating System, a program must be able to interact with the screen. Keyboard, mouse and printer graphically.

The environment provided by Visual Basic is suitable for any type of application. Using this environment, the user can visually design the objects that your application uses. Visual Basic is not just a languages, it's an integrated development environment in which you can develop, run, test and debug your applications. The impressive array of

programming resources provided by Visual Basic enables to create the objects extemporaneously which can range from pop-up menu to a message box.

A form is a major part of Visual Basic application, which allows the user to enter the data as well as view the result. A control is an object that we draw on a form to enable or enhance user interaction with an application. Hence a Visual Basic application is a combination of object like forms and controls, procedures that can respond to Events and other general-purpose procedures.

EVENT



Event procedures are where we do the actual computer programming and are saved with the form in the file with the **frm** extension. These procedures are where we write BASIC language statements. You will learn a lot of programming and BASIC language in this course. The BASIC you will learn is very similar to the original BASIC used by Bill Gates and Paul Allen when starting Microsoft.

Parts of the Visual Basic Program

Visual Basic is more than just a computer language. It is a project building environment. Within this one environment, we can begin and build our project, run and test our project, eliminate errors (if any) in our project, and save our project for future use. With other computer languages, many times you need a separate text editor to write your program, something called a compiler to create the program, and then a different area to test your program. Visual Basic integrates each step of the project building process into one environment. Let's look at the parts of the Visual Basic environment.

Features of Visual Basic:

1. Good User Interface.
2. OLE Features.
3. Windows API Features.
4. 32 bit Programming Languages.
5. Data Management
6. Online Help
7. Data Access.

Areas of Application

The term "*Personal Programming*" refers to the idea that, wherever you work, whatever you do, you can expand your computer's usefulness by writing applications to use in your own job. Personal Programming is what Visual Basic is all about.

Using Visual Basic's tools, you quickly translate an abstract idea into a program design you can actually see on the screen. VB encourages you to experiment, revise, correct, and network your design until the new project meets your requirements. However, most of all, it inspires your imagination and creativity.

Visual Basic is ideal for developing applications that run in the new Windows 95 operating system. VB presents a 3-step approach for creating programs:

1. Design the appearance of your application.
2. Assign property settings to the objects of your program.
3. Write the code to direct specific tasks at runtime.

Visual Basic can and is used in a number of different areas, for example:

- Education
- Research
- Medicine
- Business
- Commerce
- Marketing and Sales
- Accounting
- Consulting

- Law
- Science

Microsoft Access 2003.

Microsoft Access is the default database of Microsoft Visual Basic. Microsoft Access 2003 provides many new features that make working with data and designing a database even easier. Microsoft Access Database is a collection of data and objects related to particular topic or purpose. Microsoft Access Database may contain tables; queries, forms, reports, macros modules and shortcuts top data access pages.

Microsoft Access is a Relational Database Management System. Using Access we can organize our data according to subject and can store information about how different subject are related. In general MS-Access database can have several small tables.

Microsoft Office Access, previously known as Microsoft Access, is a relational database management system from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software development tools. It is a member of the 2007 Microsoft Office system.

Access can use data stored in Access/Jet, Microsoft SQL Server, Oracle, or any ODBC-compliant data container (including MySQL and PostgreSQL). Skilled software developers and data architects use it to develop application software. Relatively unskilled programmers

and non-programmer "power users" can use it to build simple applications. It supports some object-oriented techniques but falls short of being a fully object-oriented development tool.

Access was also the name of a communications program from Microsoft, meant to compete with ProComm and other programs. This proved a failure and was dropped. Years later Microsoft reused the name for its database software.

Access is used by small businesses, within departments of large corporations, and by hobby programmers to create ad hoc customized desktop systems for handling the creation and manipulation of data. Access can be used as a database for basic web based applications hosted on Microsoft's Internet Information Services and utilizing Microsoft Active Server Pages ASP. Most typical web applications should use tools like ASP/Microsoft SQL Server or the LAMP stack.

Some professional application developers use Access for rapid application development, especially for the creation of prototypes and standalone applications that serve as tools for on-the-road salesmen. Access does not scale well if data access is via a network, so applications that are used by more than a handful of people tend to rely on Client-Server based solutions. However, an Access "front end" (the forms, reports, queries and VB code) can be used against a host of database back ends, including JET (file-based database engine, used in Access by default), Microsoft SQL Server, Oracle, and any other ODBC-compliant product.

Features

One of the benefits of Access from a programmer's perspective is its relative compatibility with SQL (structured query language) —queries may be viewed and edited as SQL

statements, and SQL statements can be used directly in Macros and VBA Modules to manipulate Access tables. Users may mix and use both VBA and "Macros" for programming forms and logic and offers object-oriented possibilities.

MSDE (Microsoft SQL Server Desktop Engine) 2000, a mini-version of MS SQL Server 2000, is included with the developer edition of Office XP and may be used with Access as an alternative to the Jet Database Engine.

Unlike a modern RDBMS, the Access and the Jet Engine implements database triggers and stored procedures in a non-standard way. Stored Procedures are implemented in VBA, and Triggers are only available from embedded Forms. Both Triggers and Stored procedures are only available to applications built completely within the Access database management system. Client applications built with VB or C++ are not able to access these features. Starting in MS Access 2003 (Jet 4.0), there is a new syntax for creating queries with parameters, in a way that looks like creating stored procedures, but these procedures are still limited to one statement per procedure. Microsoft Access does allow forms to contain code that is triggered as changes are made to the underlying table (as long as the modifications are done only with that form), and it is common to use pass-through queries and other techniques in Access to run stored procedures in RDBMSs that support these.

In ADP files (supported in MS Access 2003 and later), the database-related features are entirely different, because this type of file connects to a MSDE or Microsoft SQL Server, instead of using the Jet Engine. Thus, it supports the creation of nearly all objects in the underlying server (tables with constraints and triggers, views, stored procedures and UDF-s). However, only forms, reports, macros and modules are stored in the ADP file (the other objects are stored in the back-end database).

CONCLUSION

The HOSPITAL MANAGEMENT SYSTEM is a great improvement over the manual system using case fields and paper. The computerization of the system has sped up the process. In the current system, the front office managing is very slow. The hospital managing system was thoroughly checked and tested with dummy data and thus is found to be very reliable.

ADVANTAGES

- It is fast, efficient and reliable
- Avoids data redundancy and inconsistency
- Very user-friendly
- Easy accessibility of data
- Number of personnel required is considerably less
- Provides more security and integrity to data

FUTURE ENHANCEMENTS

The proposed system is Hospital Management System. We can enhance this system by including more facilities like billing system, inpatient room allotment for the admitted patients and the stock details of medicines in the pharmacy. Providing such features enable the users to include more comments into the system.

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