INTEGRATING CURRENT COMPUTER SOFTWARE APPLICATION INTO EDUCATIONALSYSTEM

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Abstract

This paper is aimed at showcasing the importance of software applications in computer studies. Software enables computer to perform a specific task. Application software are installed to perform specific task. There are different types of application software such as: word processing, database, excel spread sheet, multimedia software, presentation software, simulation software etc. All these and more are application software which are used to perform a particular task as it may be assigned to it by the programmer. Basic features of the different software application are equally discussed. Some wares are negative and also have adverse effect on the computer system or on the application itself.

Introduction

In as much as we are faced with the challenges of insecurity all over the nation threatening our lives and means of livelihood we are not relenting in trying to proffer solution to some of the challenges. We have witnessed a lot of killings and maiming and destructive desires in some youths and trending technologies has helped in recent times which includes mobile banking, E-commerce, online learning, online booking etc. these are APPs developed to ease some challenges encountered in those areas and more. In this vein computer application software is poised to solve more problem to reduce much travelling and gathering and carrying of huge sum around. Educationists are equally queuing into the trend by developing educational APPs that distance students can use and access information. These may have its challenges but the struggle to better the lives of users and ease our struggle will continue.Software is a program that enables a computer to perform a specific task, as opposed to the physical components of the system (hardware).This includes application software such as a word processor, which enables a

user to perform a task, and system software such as an operating system, which enables other software to run properly, by interfacing with hardware and with other software.Practical computer systems divide software into three major classes: system software, programming software and application software, although the distinction is arbitrary, and often blurred.Computer software has to be "loaded" into the computer's storage (such as a hard drive, memory, or RAM).Once the software is loaded, the computer is able to execute the software. Computers operate by executing the computer program.

This involves passing instructions from the application software, through the system software, to the hardware which ultimately receives the instruction as machine code.

Each instruction causes the computer to carry out an operation -- moving data, carrying out a computation, or altering the control flow of instructions.

Application Software

While system software comprises device drivers, OS, servers, and software components, programming software helps in writing programs through tools such as editors, linkers, debuggers, compilers/interpreters and ore. Application software, in contrast to these two, is used for attaining specific tasks.

Application software uses the capacity of a computer directly for specific tasks and are used to manipulate text, graphics and numbers.

The different types of application software include the following:

Application Software Type	Examples
Word processing software	MS Word, WordPad and Notepad
Database software	Oracle, MS Access etc
Spreadsheet software	Apple Numbers, Microsoft Excel
Multimedia software	Real Player, Media Player
Presentation Software	Microsoft Power Point, Keynotes
Enterprise Software	Customer relationship management system
Information Worker Software	Documentation tools, resource management tools
Educational Software	Dictionaries: Encarta, Britannica Mathematical: MATLAB Others: Google Earth, NASA World Wind
Simulation Software	Flight and scientific simulators
Content Access Software	Accessing content through media players, web browsers
Application Suites	Open Office, Microsoft Office

Application Software Type	Examples
Software for Engineering and Product Development	**IDE** or Integrated Development Environments

There are various types of application software such as licensed, sold, freeware, shareware, and, <u>open source.</u>

Application software either need to be installed or can run online. Application software can also be distinguished on the basis of usage into the following:

- Utility programs
- Generic programs
- Integrated programs
- Specific software
- Bespoke software
- Word processing software
- Desktop publishing software
- Spreadsheet software
- Database software
- Presentation software
- Internet Browsers
- Email Programs
- Graphic Programs (Pixel based)
- Graphic Programs (vector based)
- Communication software: Communication through audio, video or chat based means

The following table describes different kinds of software applications that would be suitable for different tasks:

Word Processing software - Use this kind of tool to create worksheets, type letters, type papers, etc.

MS Word, WordPerfect, MS Works, AppleWorks,

Desktop Publishing software - Use this software to make signs, banners, greeting cards, illustrative worksheets, newsletters, etc.

Adobe PageMaker, MS Word, MS Publisher, AppleWorks, MS Works, Quark Express,

Spreadsheet software - Use this kind of tool to compute number-intensive problems such as budgeting, forecasting, etc. A spreadsheet will plot nice graphs very easily.

MS Excel, Quattro Pro, Lotus 1-2-3, MS Works, AppleWorks, ...

Database software - Use this software to store data such as address, membership and other text information. A database can be used to easily sort and organize records.

Presentation software - Use this software to create multimedia stacks of cards/screens that can effectively present a lesson or a sales pitch. The user often clicks on buttons to advance to the next screen in a sequence.

MS PowerPoint, AppleWorks (slideshows), Hyper Studio, Flash, Director, Hype Card, Digital Chisel, Super Card, Corel Envoy.

Internet Browsers - This software allows one to surf the Web. Often they can read email and create Web pages too.
Netscape Navigator (or Netscape Communicator), MS Internet Explorer, AOL Browser....

Email programs - These programs send and receive email.
Netscape Messenger (part of Netscape Communicator), MS Outlook Express, MS Outlook, Eudora, AOL browser (has email built in)....

Graphics Programs (pixel-based) - This software allows one to touch up photographs and create graphics from scratch.
Adobe Photoshop, Paint Shop Pro, AppleWorks, MS Works, MS Paint (comes free on Windows PC's), Painter,

Graphics Programs (vector-based) - This software creates graphics that are similar to illustrations or cartoon drawings.
Adobe Illustrator, Corel Draw, AppleWorks, MS Works, MS Word,

Communications software - This software allows two computers with modems to communicate through audio, video, and/or chat-based means.
MS NetMeeting, AOL Instant Messenger, IRC, ICQ, CU.

Basic Features:
Word Processing Software

- Word processors have word wrap which move the insertion point to the next line when the current line is complete. This saves time and effort.
- Editing precision and efficiency is also offered by this software. Consider the Thesaurus which provides synonyms, antonyms and related words for chosen word or phrase. Find and replace feature enables users to scan and replace selected words or phrases.
- There are inbuilt spelling and grammar checkers which make it easy to locate words with spelling issues or capitalization, sentence structure or punctuation problems.
- AutoCorrect feature can be used to make corrections in a thrice of a second. AutoText inserts words or sentences into the document at the exact point one wants.

- AutoComplete even ensures the user does not even have to type the complete word to include it in the document.
- If looks matter, can your word processor be far behind? Numerous features within the word processor can improve the format or appearance of any document in seconds. This includes font appearance, font size, character effects such as bold, italic, colors and shadow, alignment and lists.
- Allowing multiple users to edit the same document using a feature called collaboration is another beneficial feature of word processors.
- Another feature is tracking changes which lets you identify modifications to an original document made by others, whereby their changes and comments are visible.
- Word processing software involves creation of text based documents which can be stored, edited and formatted with ease.
- Additional word processing features include WordArt to modify titles, hyphens, columns and text boxes for critical information
- Most word processing software also generates reports and comes equipped with tools to create figure captions, tables, headers, footers, endnotes and more.
- For web pages, word processors include predefined templates, hypertext links and support for Web pages.

USP of ASPs:

Special web sites referred to as application service providers or ASPs enable users to access their application programs. Access is generally provided for a nominal fee.

Web applications: provide a collection of graphic illustrations including clip art drawings, diagrams and photos. One can also select items or portions of documents which can be removed from one item to another. From handwriting recognition to spelling checker and task panes, templates as well as Wizards for specific tasks and voice recognition, web based applications provide everything needed to make creating documents an easy process.

The ASP downloads or sends across a copy or part of the application onto the user where it is stored in his or her hard disk drive ready to be run. Copy remains there for some time until the program is run and exited. There are even fee- free ASPs.

Web Based Applications

Free general purpose applications can be accessed from any point in the globe. Another added benefit? You can access data files from any location. Web based applications include notes, calendars and personal information managers as well as numerous games. Web based applications may even outperform traditional

application software as time goes by. The only drawback? Well, privacy and security of personal data stored at the ASP is a concern. So is the rapid rate at which the Web changes. But an advantage is that users no longer need to upgrade software on hard disks with the availability of newer versions.

Spreadsheets: Organizing Digits in the Digital World

1. Spreadsheets are used to create documents and perform calculations for example Excel, Lotus 1-2-3 and more.
2. Spreadsheets were initially only used by accountants; now they are used by marketing professionals, students, teachers and financial analysts.
3. Most common spreadsheet programs used include Lotus 1-2-3, Microsoft Excel and Corel Quattro Pro.

Spreadsheet: IT Figures

1. Spreadsheets organize, analyze and chart/graph numerical data such as financial reports and budgets.
2. Spreadsheet programs are responsible for manipulation of data and creation of workbook files comprise one/more related worksheets
3. A worksheet or spreadsheet is a rectangle grid of rows and columns intersecting to create cells
4. Text entries or labels provide a structure to the worksheet through descriptions
5. Numeric entries can be a number or a formula for calculating and processing information; functions are prewritten formulas to perform calculations.
6. Spreadsheets involve ranges, text and numeric entries, functions, formulas, charts, calculations and what if analysis. There are different chart types including line, pie, column and bar which form part of the spreadsheet. They also provide other benefits like titles, legends and data labels.

Database is a collection of relational data, which is an electronic equivalent of a filing cabinet.

A DBMS or database management system is a program for setting up or structuring database. Databases are used in offices, educational settings and organizations of different types. 3 of the most widely used DBMS designed for microcomputers include Corel Paradox, Microsoft Access and Lotus Approach. Relational database is used most widely as a database structure. Every field in the database is assigned a field size and data type. DBMS offers numerous tools to create and use databases such as filter or criteria.

Features include tools for sorting, filtering, creating forms, defining criteria and authoring reports. DBMS is able to bring information stored in separate tables through queries, forms and reports.

Query is a question or request for certain data contained in the database while queries are used for viewing data in differing ways to analyze and change existing data. Database forms replicate traditional print forms. DBMS are used chiefly for listing reports such as sales summaries, mailing labels and phone lists.

DBMS is created through a plan where you design the basic structure of the system and employees can create table structure through specification of fields, data types as well as primary key fields.

Presentation: Pixel Perfect Picture Information is presented visually through presentation graphics that combine numerous visual objects for creating interesting and attractive presentations. These tools are also used for communicating persuasive messages.

Slides are used for electronic presentation and there are layout, normal and slide show views. You can choose color schemes, slide layouts, special effects, animation, transitions and builds.

Integrated Packages: All in One Program

An integrated package provides the functionality of a word processor, database manager, spreadsheet and much more. The drawback is that capabilities of each function are not as extensive as individual programs. An integrated package is a single program and using and switching between functions is quite convenient. Most common integrated packages are Microsoft and Apple Works.

Software Suite: Application Software in a Group

1. Software suite is a group of application programs and the 4 different types are productivity, specialized, utility and personal.
2. Software suite is a collection of separate application programs bundled and sold as a group.

Types of software suite
Productivity Suite

Productivity or business suites contain professional grade app programs such as spreadsheet, DBMS, word processors and more. Best known productivity suites are Lotus Smart Suite and Corel WordPerfect Office Suite.

Personal Suite

Personal or home suites contain personal software applications, programs intended for domestic or personal use. Some of the best known home suites include Microsoft Works Suite.

Specialized Suites

These suites focus on specific applications including <u>graphic suites,financial planning</u> suites and much more.

Utility Suite

This suites are designed to make computing safer. It includes the Norton Antivirus System and Norton Internet Security Suite.

Multimedia Software: One of a Kind

<u>Multimedia software</u> allow users to create images, audios and videos. Examples of these include Media Player.

II. Ownership Rights and Delivery Methods: Another Criteria for Distinguishing Application Software

Commercial Software: This has been installed in numerous computers by software vendors and providers. Only license is to be purchased for using it. Software is generally installed in more than one machine. Demo versions of software may also exist.

Shareware: This is either free of charge or a nominal fee is charged. This type of software can be downloaded from online sources Example: MP3 player.

III. The Many Different Wares: Where Application Software is Negative

Just like there are positive software, there are also negative forms of application software used for nefarious purposes. Applications software can carry the following hidden programs or utilities:

Malware: This stands for malicious software. Most common forms of malware are <u>Trojan horses, worms and viruses</u>.

Adware and Spyware: Adware and spyware are other common types of software. Adware includes sponsored freeware available when you register. Sometimes, adware tracks internet surfing habits to become intrusive and change into spyware. It then keeps a record of all the sites you have surfed and comes up with ads which it feels are relevant to you. Unlike adware, spyware has a negative connotation.

Greyware: This is a term used to categories all the software falling between malicious software and other codes including track-ware and spyware.

Nagware: This refers to software that comes in the form of pop ups asking users to register for a product or purchase an app

Bloatware: Software which has so many different features that it requires considerable disk space and memory resources to run

Slime ware: This refers to software which interfere with user experience by changing principal settings.

Abandonware: Software which is no longer sold or supported by publishers.

Dribble ware: Software which has too many updates and patches.

Computer Software Defined

Computer software is programming code executed on a computer processor. The code can be machine-level code, or code written for an operating system. An **operating system** is software intended to provide a predictable and dependable layer for other programmers to build other software on, which are known as **applications**. It also provides a dependable layer for hardware manufacturers. This standardization creates an efficient environment for programmers to create smaller programs, which can be run by millions of computers. Software can also be thought of as an expression that contrasts with hardware. The physical components of a computer are the hardware; the digital programs running on the hardware are the software. Software can also be updated or replaced much easier than hardware. Additionally, software can be distributed to a number of hardware receivers. Basically, software is the computer logic computer users interact with.

Two Basic Examples

A machine-level example of software is Basic Input/Output System, or **BIOS**. When you start the computer, the BIOS loads and runs before your hard drive even connects. The BIOS checks connection to hardware and looks for the operating system to load. You can upgrade the BIOS by flashing, which is when you replace machine-level software stored on the main board of your computer.

A familiar example of application software is Notepad. Notepad runs when the user activates it and it has certain requirements. You need an operating system and hardware processor. The programmers of Notepad wrote software for a specific environment. Once the software is loaded into the computer's memory, the processor is able to read it. The program then becomes a process, and the user can interact with it.

Types of Computer Software

System Software

Boot Code

Boot code is used to create a working environment for the operating system. The term, "boot" is a shortening of the term, "bootstrapping" which answers the problem of a computer needing itself to be in a running state in order to start itself. Early computers required a complicated series of commands entered by hand on a switch panel followed

by an "execute" command to create the system environment. Modern computers make use of boot code saved on semi-permanent memory.

A very small program, the code examines the system hardware; initializes environment variables such as date, time and device start order; identifies and starts the internal peripheral devices the computer uses, such as hard drives and video processors; enables the various communication ports and executes the operating system. Booting

Starting a computer from a powered-off state is called, "cold-booting." If the computer is already running and is being restarted, it already has the environment parameters and settings loaded and will skip the initialization routines and perform a "warm boot" by only restarting the operating system.

Operating System
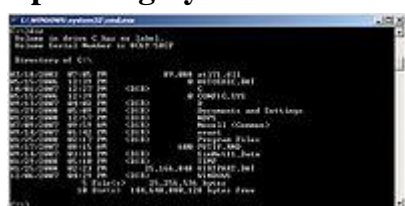
DOS, an operating system

An operating system is a master program that a computer uses to execute both user-level programs as well as the environment routines and drivers necessary for the computer to run. Thus, on a standard personal computer an operating system handles signals from input and output devices, manages memory usage and controls peripherals. Therefore, the operating system is the most important program a computer must run.

DOS, Microsoft Windows XP and Mac OS are some examples of personal computer operating systems. Server-level computers use operating systems such as UNIX and Microsoft Windows Server. LINUX and BSD are versatile enough to be used either in a personal computer or as an operating system in a server, depending on which components are installed.

With the size of most present operating systems a hard disk is required to store the necessary files and programs. Should the operating system become inoperable, many offer a "boot disk" option where a simpler version of the operating system with only the necessary drivers and files is stored on removable devices, usually a CD/DVD-ROM, USB flash drive or floppy disk. Booting the computer with the boot disk allows the system to be accessed and repaired.

Portable devices, such as cellular phones and personal data assistants use specialized, "embedded" operating systems that enable them to do many tasks once only found in "platform" computers, such as email transactions, document operations and database management.

Examples of Personal Computer/Server Operating Systems

PC/Microsoft DOS

A command-line operating system, MS/PC DOS helped usher in the microcomputer age by providing an operating system that would run on the limited resources of the 8086/8088-based personal computer. Ms-dos

Microsoft Windows

Despite its numerous problems and irritations, Microsoft Windows is rightly credited with enabling the non-technical user to operate a computer without having to learn too many complicated commands and settings and has been instrumental to the increased popularity of the personal computer.

MS Windows versions 1.0 and 2.x
MS Windows version 3.x
MS Windows 9x
MS Windows NT
MS Windows XP
MS Windows Vista
MS Windows 7

Examples of Embedded Operating Systems

Palm OS

The Palm OS was preceded by the Japanese company PalmSource, and is the dominant operating system for hand-helds. Over 30.1 million Palm OS units (including licensees), according to Sept 2003 Palm Inc. financial reports; with over 22 million total USR/3Com/Palm or Palm Solutions Group branded units shipped (over 4 million per year). Palm has many security concerns due to it's mobility, such as if lost or stolen palms may have data that can retrieved by others. Also if Palm passwords are interconnected to your PC passwords, anyone has access to personal files on your PC.

Symbian OS

Symbian is the operating software which is mostly used by the mobile phones. Symbian is the biggest software producers for smart phones. There are the Symbian codes used by different companies as well, Mika Raento has huge examples of symbian codes. There are different companies that owns Symbian software: examples are Sony Ericsson, Ericsson and Nokia has the highest percentage (47.9%)

MS Windows CE

Though most versions of Microsoft Windows were developed for desktop applications, a simpler version was created for hand-held devices called, "Windows CE."

Files

A file is one of two things: 1) data file, or a named collection of data or 2) program file, or a program that exists in the secondary storage of a computer.

Computer files make it easier for the user to find and save their data. Computer files are like paper documents that used to be kept in libraries and offices.

Files

Exporting a file puts it in a format that many programs can read. Importing a file gets data from another source and converts it to a compatible format. **Example**: Creating a spreadsheet in Google Docs, *exporting* the file to CSV (comma separated value) format, opening Microsoft Excel, *importing* the CSV file, saving the spreadsheet as an excel file. Example: Certain networks are created to allow users to share files, such as audio, video and pictorial images. Networks like Limewire use a peer-to-peer file sharing method. podcast

Tasks

Multitasking

A computer may perform many different tasks at the same time. Tasks include storing, printing, and calculating. Multitasking is when a computer operates more than one task at a time with one central processor.

A task is a set of instructions (like a plan) that is brought out from memory to execute certain functions.

In order to allow your computer to multi-task quicker the processor should have high speed (frequency). This will allow you to run more applications at once without affecting your computers performance. Nowadays multicore processors which combines two(dual core) or four(quad core) are coming which have more speed than ordinary ones.

Task is a real time application which is the study of hardware and software that are subject to real time constraint.

Security

Trojan Invasion Security could mean confidentiality, integrity or availability of electronic information that is processed by or stored on computer systems. "The only truly secure system is one that is powered off, cast in a block of concrete and sealed in a lead-lined room with armed guards - and even then I have my doubts. "

Eugene H. Spafford, director of the Purdue Center for Education and Research in Information Assurance and Security.

EXAMPLE:

 FIREWALL A system that prevents unauthorized access to/from a private network. Can be implemented in both hardware and software, or both. This form of security can be used to prevent unauthorized Internet users from accessing private networks connected to the Internet/inappropriate networks.

Applications

Applications are referred to as a type of computer software where the computer's capabilities directly reflect that of the task.

Custom

Custom software is under the category of application software. The word custom means that the software is specially made for the individual and/or company needs. This software is created by the programmers and software engineers. Custom software can be very expensive since it is only developed on demand. A very good example of a custom soft ware is the application of it in space crafts, ATM'S, and super market checkout machines. Custom software, which can also be called bespoke software, is only created

for individual companies to be used for research and other things. It is also a risk for a company to develop custom software since it is very expensive or demands huge sums of money to develop

Commercial

Commercial Software, also known as Proprietary Software or Packaged Software, is software that can be bought and sold. Commercial Software is copyrighted, so you must pay for it in some respect. Examples of this are Microsoft Excel or Adobe Photoshop.

Commercial software is generally bought in retails stores in a physical form. However, in some cases you can download the program you desire over the internet for a lesser fee. Commercial software programs uses things such as passwords and user registrations to make sure only paid customers are using the program. Commercial software such as Norton AntiVirus uses thirty day free trials to familiarize the user with the product before they purchase it.

Shareware: is shareware or application software Shareware is basically "try before you buy" software. Unlike most software where you have to buy the software before you can actually use it, the concept of Shareware lets you try a program for a short period of time before you buy it. This gives the consumer an opportunity to test out the software and see if it suits his needs or not. This not only helps the consumer get a feel for the product but is also beneficial to the company providing the Shareware Software to market their product. Shareware has the ultimate money-back guarantee - if you don't use the product, you don't pay for it!

Examples of shareware software would be a trial version of Fracture. It is a screensaver software for the Mac Os-X. In order to use the full version of the software.
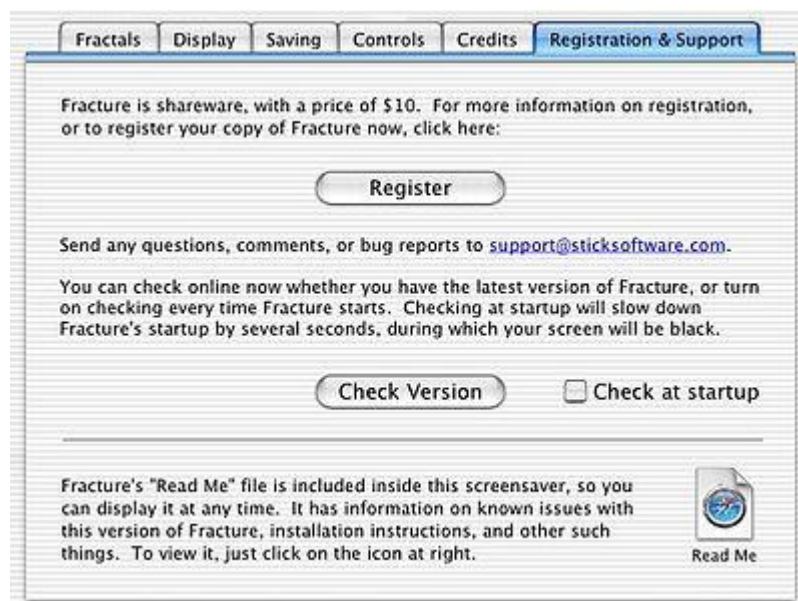
Open Source

Software that has released the files it was written in, usually free, so you can download and change the original code, therefore changing the program.

Viro has contributed 1,571 changes to the kernel, which sits at the core of the Linux operating system, over the past three years, according to a new report from the Linux Foundation. That's more than any other individual developer, the report states. In contrast, Torvalds, the kernel's creator and steward, contributed 495 changes. Viro couldn't be reached for comment about the report.

During the past three years, the top 10 individual developers have contributed nearly 15 percent of the changes to the kernel, while the top 30 developers have submitted 30 percent, the report states.

OS

An operating system has two jobs: to coordinate the computers resources and to service applications. Operating Systems were introduced in the 1950's.

Utilities

Also known as service programs. Utilities perform a variety of functions like disk defragmenting or data compression. When utilities become popular they are usually incorporated into the operating system.

Driver

A printer needs a driver

A computer driver is a program that controls a device. There are device drivers for printers, displays, CD-ROM readers, diskette drives, and so on. For other devices, you may need to install a new driver when you connect the device to your computer. In DOS systems, drivers are files with a .SYS extension. In Windows environments, drivers often have a .DRV extension.

A driver acts like a *translator* between the device and programs that use the device. Each device has its own set of specialized commands that only its driver knows. In contrast, most programs access devices by using generic commands. The driver, therefore, accepts generic commands from a program and then translates them into specialized commands for the device.

Backup

Making copies of data in case the original data is lost or destroyed.

The two reasons for backing up your files are; a) disaster recovery - to restore the files to an operational state following a disaster, and b) to restore small numbers of files after they have been corrupted or accidentally deleted.

Do not confuse backups with archives or fault-tolerant systems. Archives are the first copy of data and backups are a second copy of data. Also back up systems assume that fault will cause data loss and fault-tolerant systems will not assume fault.

A popular backup utility is Norton ghost, where a user can make an image copy of their files in case of a system crash.

A common method of backup for isolated systems without high-speed network or backup devices is to maintain the system and applications software installation disks locally, near the system, and backup only user data. In the event of a crash one then reinstalls system and application software from scratch and then restores the user data. When using this method one should not neglect to make off-site backups of the commercial software and user data so that in the event of a local disaster such as fire, flood, or earthquake that crunches the system, rapid recovery is still possible if desirable.

A backup allows the user to make a duplicate copy in case the hard-disk drive fails.

Virus

A virus is a program that can destroy and corrupt data on a computer. It can come through a floppy disk, CD, or USB, but now usually comes through email.

Virus are programs that can copy themselves and create problems in one computer without the user ever knowing or authorizing it. Virus can only be spread when they are taken to an uninfected computer. Viruses are commonly confused with computer worms and Trojan horses. A worm has the capabilities to spread itself to other computers without needing to be transferred as part of a host. Trojan horses are files that appear to be harmless until they are executed. [4]

Antivirus software is a computer program that attempts to identify and eliminate computer viruses. There are two different techniques to accomplish this, examining (scanning) and identifying suspicious behavior

An example of an antivirus software program is Norton antivirus. Norton antivirus (NAV) is a popular product of Symantec Corporation and is one of the most widely used antivirus programs. It is aimed at a centrally managed corporate environment and has different features not present in the traditional retail version of the software. Symantec's Live Update provides virus definition updates, which enable Norton antivirus to detect viruses known to Symantec; a total of 73,660 viruses as of September 6, 2007. In order to receive updates, a valid subscription is required; an initial subscription good for one year (or 90 days for OEM copies) is included with the purchase.

Defrag

The hard drive is divided into sectors that can hold files. If a file is bigger than a section (which it usually is) it is stored on the next sector. If the next sector is already being used, then it has to store it on a sector farther away, but the address of the new sector is stored so that the computer knows where all the parts of the file are. But if parts of the file are ALL OVER THE PLACE (aka "fragmented") then it takes a long time to find and make changes to it.

That's where defragmenting can help. It dutifully finds sectors that are next to each other big enough to hold a file and copies the file there, then deleting it form the fragmented sectors where it used to be.

Defragmentation reduces the amount of space or "fragmentation" in a file space. By using compaction, it creates larger regions of free space. The image to the side of the text represents the allocation of the free space as well as the combining of the files in order to defragment the hard drive.

F (Second Allocation)
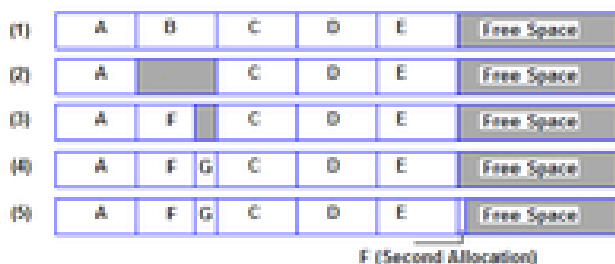
defragmenting

Fragmentation occurs when the operating system cannot or will not allocate enough contiguous space to store a complete file as a unit, but instead puts parts of it in gaps between other files (usually those gaps exist because they formerly held a file that the operating system has subsequently deleted or because the operating system allocated excess space for the file in the first place). Larger files and greater numbers of files also contribute to fragmentation and consequent performance loss. Defragmentation attempts to alleviate these problems.

Scandisk
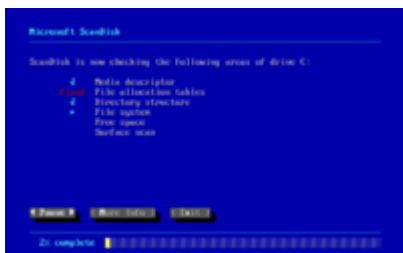
Microsoft Scan Disk

This is a utility program originally used by DOS and Microsoft Windows that checks and repairs file systems and bad clusters within the system. Previous versions were simple text-based program called CHKDSK. Subsequent versions of the scandisk were still

referred to as CHKDSK, but different from the earlier version. The recent versions are now integrated in Disk Properties as "error-checking." [5]

One of the main functions with scandisk is that it can identify and repair physically damaged hard drives by quarantining the damaged area, to avoid files being written in that area, thus avoiding damaged and lost data.
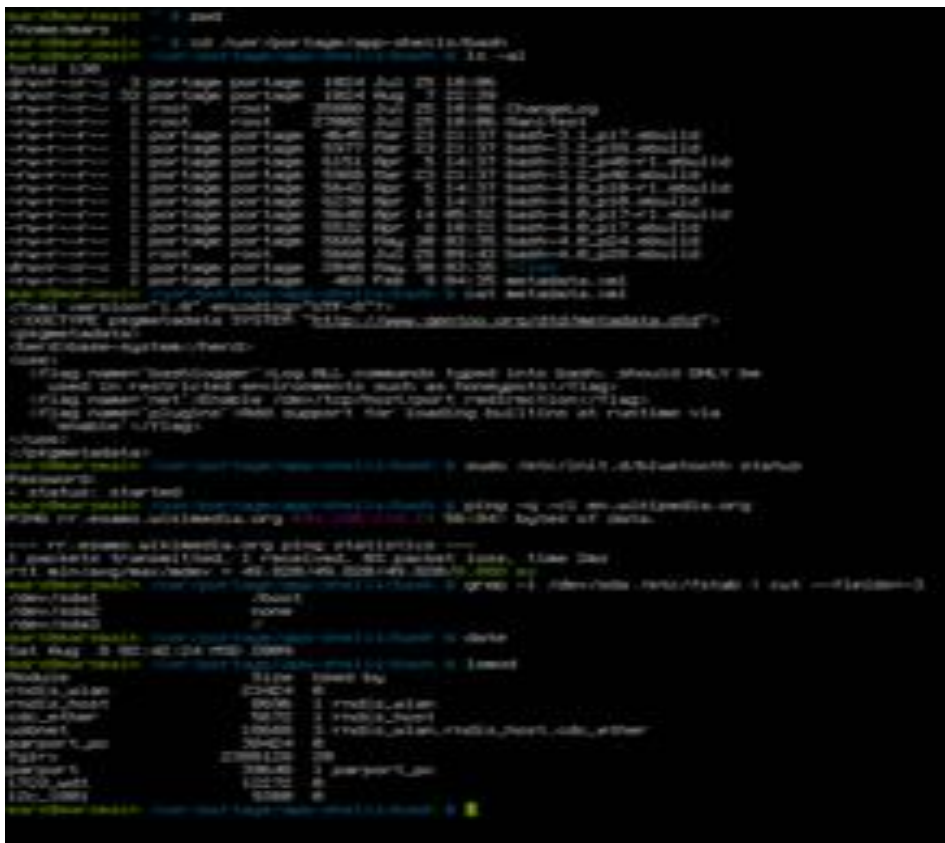
Interfaces

Interfaces and Widgets

How you work with the computer...

Interfaces is the functioning of two things, ex the way software and hardware interacts or how either would interact with a person is the user.

CUI

CUI using Linux

Character user interface. You type commands into the computer. It's not easy to remember all the commands, and it looks less exciting than a GUI, but it works faster because you're not making the computer waste time showing pretty icons and background images.

This is the precursor to GUI (graphical user interface).

GUI

Mac OS X Leopard GUI

GUI is an acronym for "graphical user interface". It allows people to interact with a computer and computer-controlled devices using graphical icons, visual indicators or special graphical elements called "widgets". These icons are used in conjunction with text, labels or text navigation.

The history of the graphical user interfaces came from the Xerox 8010 Star Information System in 1981 from PARC. GUI's are familiar to most people today using Microsoft Windows and Mac OS X.

GUI's are important because they are easier to use than command driven interfaces.

GUI shell

GUI shell Linux

Graphical user interface (GUI) shells build on top of CUI. The GUI instructs the CUI, and the CUI sends messages to the hardware.GUI shells are very replaceable and software often allows users to create their own GUI to suit their personal need. The most active user generated GUI can be seen in games where users replace the original image

with another GUI overlay to suit their personal style. A GUI is a type of user interface which allows people to interact with a computer and computer-controlled devices.

DOS Shell
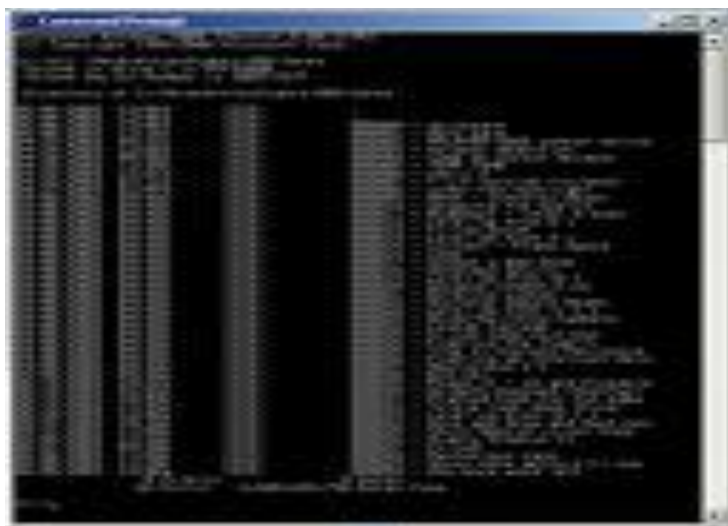
dos shell

This shell was one of the first successful attempts to create a basic graphical user interface (GUI) type file manager in DOS.

DOS Shell enables the user to type prompts and commands within a user interface.

No longer in use, the DOS shell, stands for Microsoft disc operating system. Microsoft set up this 'shell'(program software), to enhance features of their system. Some of these features include: double clicking to open a file on the computer and copying, moving, and renaming files. Some of the benefits of the dos shell is that it did not require long file names to run and it could be used with Microsoft windows. One of the drawbacks to the dos shell was that it could not multi task and so it was replaced when more efficient programs were created.

Widgets

A widget is an interface that a computer user uses such as window or text box. Programmers use widgets to build GUIs (graphical user interfaces). A widget engine is a host software system for running and displaying desktop widgets.

Widgets are also downloadable interactive virtual tools. They help to show users things such as the latest news, time or weather among a variety of other things.

LIMITATION OF STUDY

1) Lack of competent persons to develop and train the users
2) Network issues
3) Limited Resources

Conclusion

With the increasing role of software in the daily lives of the people, full stack web development services are now offering the latest software to fulfil their demands. As we know, there are various types of software where the market of system software is already saturated with big players like Microsoft, Apple etc. while application software have stiff competition with established players and new players competing to gain the extra edge. Mentioned above is the explanation of what a software is and the types of software. A software development company can venture into the development of any of these software to earn big profits

From numbers to text, this software has a wide scope of application. Action oriented application software carries out specific tasks intended to make the complex into something very simple. Application software comes in many types which will go on increasing as technology and users evolve. The different types of application software mirror the massive changes in computer technology and terminology that have come about. With changing technology, application software too has undergone modifications for the better. Application software involves performing virtual tasks to solve problems in the real world.

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Tukey, John Wilder (January 1958). "The Teaching of Concrete Mathematics". American Mathematical Monthly. Taylor & Francis, Ltd. / Mathematical Association of America. **65** *(1): 1–9, 2. doi:10.2307/2310294. ISSN 0002-9890. JSTOR 2310294. CODEN AMMYAE. […] Today the "software" comprising the carefully planned interpretive routines, compilers, and other aspects of automative programming are at least as important to the modern electronic calculator as its "hardware" of tubes, transistors, wires, tapes, and the like.*