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## *Executable Viruses*

Early viruses were pieces of code attached to a common program like a popular game or a popular word processor. A person might download an infected game from a bulletin board and run it. A virus like this is a small piece of code embedded in a larger, legitimate program. Any virus is designed to run first **when the legitimate program gets executed**. The virus loads itself into memory and looks around to see if it can find any other programs on the disk. If it can find one, it modifies it to add the virus's code to the unsuspecting program. Then the virus launches the "real program."

The user really has no way to know that the virus ever ran. Unfortunately, the virus has now reproduced itself, so two programs are infected. The next time either of those programs gets executed, they infect other programs, and the cycle continues.

If one of the infected programs is given to another person on a floppy disk, or if it is uploaded to a bulletin board, then other programs get infected. This is how the virus spreads.

The spreading part is the **infection** phase of the virus. Viruses wouldn't be so violently despised if all they did was replicate themselves. Unfortunately, most viruses also have some sort of destructive **attack** phase where they do some damage. Some sort of trigger will activate the attack phase, and the virus will then "do something" -- anything from printing a silly message on the screen to erasing all of your data. The trigger might be a specific date, or the number of times the virus has been replicated, or something similar.

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## *Types of Infection*

When you listen to the news, you hear about many different forms of electronic infection.

The most common are:

**Viruses** - A virus is a small piece of software that piggybacks on real programs. For example, a virus might attach itself to a program such as a spreadsheet program. Each time the spreadsheet program runs, the virus runs, too, and it has the chance to reproduce (by attaching to other programs) or wreak havoc.

**E-mail viruses** -

An e-mail virus moves around in e-mail messages, and usually replicates it by automatically mailing itself to dozens of people in the victim's e-mail address book

**Worms** - A worm is a small piece of software that uses computer networks and security holes to replicate itself. A copy of the worm scans the network for another machine that has a specific security hole. It copies itself to the new machine using the security hole, and then starts replicating from there, as well.

**Trojan horses** - A Trojan horse is simply a computer program. The program claims to do one thing (it may claim to be a game) but instead does damage when you run it (it may erase your hard disk). Trojan horses have no way to replicate automatically.

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## *Introduction to GSM*

### **What is GSM?**

Global System for Mobile Communication (GSM) is a set of ETSI standards specifying the infrastructure for a digital cellular service. The standard is used in approx. 85 countries in the world including such locations as Europe, Japan and Australia.

### **History Of GSM:**

The development of GSM started in the early 1980s. It was seen then as the mainstay of the plans for Europe's mobile communication infrastructure for the 1990s. Today, GSM and its DCS 1800 and PCS 1900 versions have spread far beyond Western Europe with networks installed across all continents. The story begins in 1982 when the European Conference of Posts and Telecommunications

Administrations (CEPT), consisting then of the telecommunication administrations of twenty-six nations made two very significant decisions.

## **Features of GSM:**

***Quality***

***Security***

***Convenience***

***Roaming***

3. The GSM network compromise 3 parts:

1. Mobile Station (MS), which is similar to a cordless phone with extra features.
2. Base Transceiver Station (BTS) that controls the connection with the Mobile Station Base Station Controller (BSC) that controls multiplies Base Transceiver Stations

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*Broadband ISDN*

## **What is Broadband ISDN?**

Narrowband ISDN has been designed to operate over the current communications infrastructure, which is heavily dependent on the copper cable. B-ISDN however, relies mainly on the evolution of fibre optics. According to CCITT B-ISDN is best described as 'a service requiring transmission channels capable of supporting rates greater than the primary rate.' Behind this statement lies the plan for a network and services that will have far more impact on the world we know today, than ISDN ever would.

## **ISDN is Telephone Network**

When ISDN is referred to as a network it is to be considered a telephone network, not a computer network. Broadband ISDN allows its users to communicate over high speed, high quality digital channels. The media it supports include Telex, fax, voice telephone, video telephone, audio, high definition TV and computer networking.

## **ISDN is Integrated Services**

In the past video, audio, voice and data services needed different types of communication channels. One of the main advantages of ISDN is the ability to integrate these features over the same network and cable plant. Not only is this possible using ISDN technology but the quality of the transmission is better also. In the past four networks were needed and video was distributed on coaxial lines, audio over balanced lines, voice used copper cable pairs and data services required coaxial or twisted pair cables. Using one network allows reductions in installation costs, as well as easier installation. Other features available include demand networking, automatic bandwidth and on the fly connectivity. Advances in the services available are due to ISDN being digital.

## **ISDN is Digital**

Data applications, in particular, seemed to have problems with the old analogue services. This is due to the fact that computers are digital devices and the transmission of data needs to be modified from binary to analogy tones, then changed back to binary when it is received. This process requires a modem, which handles the MODulation and DEModulation of the data. Whilst the data is in transit it is susceptible to outside influences like noise, line spikes and echoes. Bandwidth is also limited, with the speed of modems being close to the maximum possible.

## **ISDN is a Network**

Networks require high speed connectivity if they are going to be useful. ISDN is an excellent vehicle for connecting LANs, because it scales in increments of 64 kilobits per second (kbps). Computers are digital devices, as is ISDN, meaning that no translation of information is required, improving quality and speed. Due to the characteristics of ISDN it can be used, with the same level of performance, across a room or halfway across the continent. This has unlimited benefits.

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*TIPS FOR YOUR BODY LANGUAGE*

**1. Don't cross your arms or legs ?** You have probably already heard you shouldn't cross your arms as it might make you seem defensive or guarded. This goes for your legs too. Keep your arms and legs open.

**2. Have eye contact, but don't stare ?** If there are several people you are talking to, give them all some eye contact to create a better connection and see if they are listening. Keeping too much eye-contact might creep people out. Giving no eye-contact might make you seem insecure. If you are not used to keeping eye-contact it might feel a little hard or scary in the beginning but keep working on it and you'll get used to it.

**3. Don't be afraid to take up some space ?** Taking up space by for example sitting or standing with your legs apart a bit signals self-confidence and that you are comfortable in your own skin.

**4. Relax your shoulders ?** When you feel tense it's easily winds up as tension in your shoulders. They might move up and forward a bit. Try to relax. Try to loosen up by shaking the shoulders a bit and move them back slightly.

**5. Nod when they are talking?** Nod once in a while to signal that you are listening. But don't overdo it and peck like Woody Woodpecker.

**6. Don't slouch, sit up straight ?** but in a relaxed way, not in a too tense manner.

**7. Lean, but not too much?** If you want to show that you are interested in what someone is saying, lean toward the person talking. If you want to show that you're confident in yourself and relaxed lean back a bit. But don't lean in too much or you might seem needy and desperate for some approval. Or lean back too much or you might seem arrogant and distant.

**8. Smile and laugh?** Lighten up, don't take yourself too seriously. Relax a bit, smile and laugh when someone says something funny. People will be a lot more inclined to listen to you if you seem to be a positive person. But don't be the first to laugh at your own jokes, it makes you seem nervous and needy. Smile when you are introduced to someone but don't keep a smile plastered on your face, you'll seem insincere.

**9. Don't touch your face?** It might make you seem nervous and can be distracting for the listeners or the people in the conversation.

**10. Keep you head up** - Don't keep your eyes on the ground, it might make you seem insecure and a bit lost. Keep your head up straight and your eyes towards the horizon.

**11. Slow down a bit?** This goes for many things. Walking slower not only makes you seem more calm and confident, it will also make you feel less stressed. If someone addresses you, don't snap your neck in their direction, turn it a bit more slowly instead.

**12. Don't fidget?** Try to avoid, phase out or transform fidgety movement and nervous ticks such as shaking your leg or tapping your fingers against the table rapidly. You'll seem nervous and fidgeting can be a distracting when you try to get something across. Declutter your movements if you are all over the place. Try to relax, slow down and focus your movements.

**13. Use your hands more confidently ?** Instead of fidgeting with your hands and scratching your face use them to communicate what you are trying to say. Use your hands to describe something or to add weight to a point you are trying to make. But don't use them too much or it might become distracting. And don't let your hands flail around, use them with some control.

**14. Lower your drink?** don't hold your drink in front of your chest. In fact, don't hold anything in front of your heart as it will make you seem guarded and distant. Lower it and hold it beside your leg instead.

**15. Realise where your spine ends?** Many people (including me until recently) might sit or stand with a straight back in a good posture. However, they might think that the spine ends where the neck begins and therefore crane the neck forward in a Montgomery [Burns-pose](#). Your spine ends in the back of your head. Keep your whole spine straight and aligned for better posture.

**16. Don't stand too close?**one of the things we learned from Seinfeld is that everybody gets weirded out by a close-talker. Let people have their personal space, don't invade it.

**17. Mirror** - Often when you get along with a person, when the two of you get a good connection, you will start to mirror each other unconsciously. That means that you mirror the other person's body language a bit. To make the connection better you can try a bit of proactive mirroring. If he leans forward, you might lean forward. If she holds her hands on her thighs, you might do the same. But don't react instantly and don't mirror every change in body language. Then weirdness will ensue.



18 mail virus move around in e-mail messages, and usually replicates it by automatically mailing itself to dozens of people in the victim's e-mail address book.

*FROM*  
*EDITOR*

## *1. BIOMETRIC*

**Biometrics** offers new perspectives in high- security applications while supporting natural, user-Friendly and fast authentication. Biometrics identification considers individual physiological characteristics and typical behavioral patterns of a person to validate their authenticity.

A new key generation and security mechanism is proposed in this project work. Normally biometric characteristics are used for the authentication purpose only. In this method **Finger Prints** are used to generate key. This key value is based on **DES Algorithm**. The system also performs an Authentication checking process in the decryption process to verify the correctness of the key value. The system is designed to secure and type of file. The design of the system consists of four phases. They are,

1. Finger Print Selection
2. Key Generation
3. File Encoding
4. File Decoding.

## **2. INTRANET MESSAGING AND MAILING SYSTEM.**

Intranet messaging and mailing system designed to send and receive mails thru network and to maintain a separates friend list. Both public and private chat rooms are made available in this project and also one can send message to his friend even if he is in out of line (offline). That message will automatically reach him when he turns online and also have to send a attachment file or greetings to their friends.

### **3. Communication Network Protocol.**

This project is enclosed with four modules.

1. Tcp\Ip
2. FTP
3. SMTP
4. Port Scanner.

#### **FTP:**

It is used to transferring the file between the two systems.

#### **SMTP:**

It is used to send the e-mail.

#### **Port Scanner:**

It is used to find the number of protocols used in the client system.

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## WINDOWS KEYBOARD SHORTCUTS

Below is a listing of Windows keys that can be used on computers running a Microsoft Windows operating system and using a keyboard with a Windows key. In the below list of shortcuts the windows key is represented by "WINKEY". If you are looking for Windows shortcut keys see the above Microsoft Windows shortcut key section.

### Shortcut Keys    Description

WINKEY + D	minimize all windows and return the user to the desktop.
WINKEY + M	Minimizes all windows.
WINKEY + SHIFT + M	Undo the minimize.
WINKEY + E	Open Microsoft Explorer.
WINKEY + Tab	Cycle through open programs through the taskbar.
WINKEY + F	Display the Windows Search / Find feature.
WINKEY + CTRL + F	Display the search for computers window.
WINKEY + F1	Display the Microsoft Windows help.
WINKEY + R	open the run window.
WINKEY + Pause / Break key	open the system properties window.
WINKEY + U	Open Utility Manager.
WINKEY + L	Lock the computer (Windows XP and above only).

ERAZARSO



### Regarding Interview

**Q)** How can you be best suited to our TCS (or Soft ware field)?

**Ans:** Some of my seniors told that TCS is doing consultancy business in soft-ware field, this requires some sort of programming skills, knowledge of programming languages, in addition to this it requires a sort of aptitude skill which I am sure of posing it, this I can say based on my past academic achievements. Also now I am learning C, I learned up to ....  
(say arrays or functions) I will go through Pointers etc. also I am learning COBOL, I am preparing for TCS C, COBOL test.

**Question)** Why are you shifting from your ..... field to software field?

**Ans:** I am interested in soft-ware field, because of its bright & prosperous future and quick recognition of talent leading to faster growth. They will ask about your family members and you, you just simply answer the truth frankly, they do not boucher about your father occupation i.e business studies, etc.

**Question :)** how can you compete with a computer background student as you are a pure ---- Engg student?

**Ans:** Actually I have taken Fortran/C/C++ as one of my courses in B.Tech/Minor Area. course, now here in IIT I learned ----- languages( something about what you learned in IITD), initially I found slightly difficulty to compete with a student having computers background, but now I am confident of learning programming skills as once I am in the process of learning I am sure of achieving this.  
here we have first talked about family, then about 4 minutes talk on my project then they questioned on the project, then they asked about soft-ware i.e do you know about INTERNET, Y2K problem, etc. I frankly told that I do not know about INTERNET, I know a little bit about Y2K problem and explained about Y2K problem i.e now in all computers year is indicated by two digits only, finally after the 99th year (1999) the computer will treat as 00 year(1900) instead of considering it as 2000. meanwhile one or two question on my academic record, about my refrigeration companies, etc. if you

have a good topic on your project, you tell about that one and have a little knowledge on it so you can answer well their questions.

## **Profile**

Tata Consultancy Services started in 1968. Mr.F.C Kohli who is presently the Deputy Chairman was entrusted with the job of steering TCS. The early days marked TCS responsibility in managing the punch card operations of Tisco. The company, which was into management consultancy from day one, soon felt the need to provide solutions to its clients as well. TCS was the first Indian company to make forays into the US market with clients ranging from IBM, American Express, Sega etc. TCS is presently the top software services firm in Asia.

During the Y2K buildup, TCS had setup a Y2K factory in Chennai as a short-term strategy. Now, with E-business being the buzzword, the factory is developing solutions for the dotcom industries. Today, about 90 percent of TCS' revenue comes from consulting, while the rest from products. TCS has great training facilities. In addition to training around 5 percent of the revenue is spent upon its R&D centers like the Tata Research Design and Development Centre at Pune, along with a host of other centers at Mumbai and Hyderabad.

It benchmarked its quality standing, invested heavily in software engineering practices and built intellectual property-in terms of patents, code and branded products. At the same time, it expanded its relationships with technology partners and organizations, increased linkages with academic institutions and incubated technologies and ideas of people within TCS and outside. TCS has already patented 12 E-Commerce solution product packages and has filed six more applications for patent licenses.

Over \$25 million were spent on enhancing hardware and software infrastructure. The company now has 72 offices worldwide. As many as seven include opportunities). These Chennai, Mumbai, Bangalore, Calcutta, Hyderabad and Lucknow. The present CEO of the company is Mr. S. Ramadorai. The companies strength is about 14,000.

Several business centers were assessed at SEI CMM Level 5 last year(3.4 mistakes in a million and R&D relationship with global firms like IBM, General Electric, Unigraphics Solutions have been made.

STUDENTS OF

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## *LINUX*

Linux is one of the most prominent examples of free software and of open-source development: unlike proprietary operating systems such as Windows, all of its underlying source code is available to the public for anyone to freely use, modify, improve, and redistribute.

In the narrowest sense, the term Linux refers to the Linux kernel, but it is commonly used to describe entire Unix-like operating systems (also known as GNU/Linux) that are based on the Linux kernel combined with libraries and tools from the GNU Project and other sources. Most broadly, a Linux distribution bundles large quantities of application software with the core system, and provides more user-friendly installation and upgrades.

Linux was originally developed for Intel 386 microprocessors and now supports all popular computer architectures (and several obscure ones). It is deployed in applications ranging from embedded systems (such as mobile phones and personal video recorders) to personal computers to supercomputers.

**K.KEERTHANA.  
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*I.T:*

1. [www.hardwarecentral.com](http://www.hardwarecentral.com)
2. [www.freedevolepers.com](http://www.freedevolepers.com)
3. [www.ciol.com](http://www.ciol.com)
4. [www.cisco.com](http://www.cisco.com)

5. [www.epanorama.com](http://www.epanorama.com)

## **E-Learning & Education:**

1. [www.netvarsity.com](http://www.netvarsity.com)
2. [www.egurucool.com](http://www.egurucool.com)
3. [www.zeelearn.com](http://www.zeelearn.com)
4. [www.go2varsity.com](http://www.go2varsity.com)

## **Information & Portals:**

1. [www.123india.com](http://www.123india.com)
2. [www.sify.com](http://www.sify.com)
3. [www.indiatimes.com](http://www.indiatimes.com)
4. [www.rediff.com](http://www.rediff.com)
5. [www.indya.com](http://www.indya.com)

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