PRIYADARSHINI COLLEGE OF ENGINEERING
(Recognised by A.I.C.T.E., New Delhi & Govt. of Maharashtra, Affiliated to R.T.M.Nagpur University)Near CRPF Campus, Hingna Road, Nagpur-440 019, Maharashtra (India)
Phone : 07104 - 236381, 237307, Fax : 07104 - 237681,

Practical No. 1

Aim-To study various legal, ethical and professional issues in Cyber and Information Security.

Theory:-

Ethical and Legal Issues

Many ethical and legal issues in computer security systems seem to be in the areaof the individual's right to privacy versus the greater good of a larger entity (e.g. a company, society, etc.)

For example.

-tracking how employees use computers,

-crowd surveillance,

-managing customer profiles,

- tracking a person's travel with a passport.

-Location tracking so as to spam cell phone with text messagesadvertisements and so on

A key concept in resolving this issue is to find out is a person's expectation of privacy.

Classically, the ethical issues in security systems are classified into the following four categories:

Privacy - This deals with the right of an individual to control personal information.

Accuracy - This talks about the responsibility for the authenticity, fidelity and accuracy of information.

Property- Here we find out the owner of the information. We also talk about who controls access.

Accessibility –This deals with the issue of The type of information an organization has the right to collect. And in That situation, it also expects to know the measures which will safeguard against any unforeseen eventualities.

Privacy is the protection of personal or sensitive information .Individual privacy is the desire to be left alone as an extension of our personal space and may or may not be supported by local regulations or laws. Privacy is subjective. Different people have different ideas of what privacy is and how much privacy they will trade for safetyor convenience.

When dealing with legal issues. we need to remember that there is a hierarchy of regulatory bodies that govern the legality of information security.

- **Internation:** International Cybercrime Treaty.
- **Federal:** e.g. FERPA ,GLB,HIPAA,DMCA,Teach Act,Sarbanes-Oxley Act etc.
- **State:** e.g. UCITA,SB 1986 etc

Organization: e.g. Computer use policy.

Scanned with CamScanner

The Ten Commandments of Computer Ethics

From The Computer Ethics Institute

1. Thou shalt not use a computer to harm other people.
2. Thou shalt not interfere with other people's computer work.
3. Thou shalt not snoop around in other people's computer files.
4. Thou shalt not use a computer to steal.
5. Thou shalt not use a computer to bear false witness.
6. Thou shalt not copy or use proprietary software for which you have not paid.
7. Thou shalt not use other people's computer resources without authorization orproper compensation.
8. Thou shalt not appropriate other people's intellectual output.
9. Thou shalt think about the social consequences of the program you are writingor the system you are designing.
10. Thou shalt always use a computer in ways that ensure consideration andrespect for your fellow humans.

Conclusion:- Study of Various legal, ethical and professional issues in cyber and informationsecurity done successfully.

Viva Questions:

Q. 1 What are Various legal issues?
Q. 2 What are Various ehical issues?
Q. 3 Exaplain different computer ethics ?

Scanned with CamScanner

PRIYADARSHINI COLLEGE OF ENGINEERING
(Recognised by A.I.C.T.E., New Delhi & Govt. of Maharashtra, Affiliated to R.T.M.Nagpur University)Near CRPF Campus, Hingna Road, Nagpur-440 019, Maharashtra (India)
Phone : 07104 - 236381, 237307, Fax : 07104 - 237681,

Practical No.2

Aim- To implement Caesar Cipher Substitution Techniques.

Theory:-

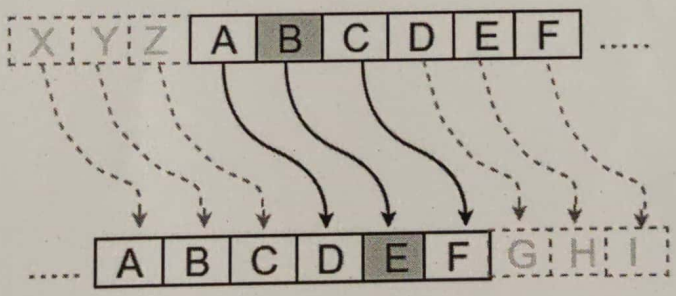
The Caesar Cipher technique is one of the earliest and simplest methods of encryption technique. It's simply a type of substitution cipher, i.e., each letter of a given text is replaced by a letter with a fixed number of positions down the alphabet. For example with a shift of 1, A would be replaced by B, B would become C, and so on. The method is apparently named after Julius Caesar, who apparently used it to communicate with his officials.

Thus to cipher a given text we need an integer value, known as a shift which indicates the number of positions each letter of the text has been moved down.

The encryption can be represented using modular arithmetic by first transforming the letters into numbers, according to the scheme, A = 0, B = 1,..., Z = 25. Encryption of a letter by a shift n can be described mathematically as.

$$E_n(x) = (x + n) mod\ 26$$
(Encryption Phase with shift n)

$$D_n(x) = (x - n) mod\ 26$$
(Decryption Phase with shift n)



Algorithm : -

- Traverse the given text one character at a time .
- For each character, transform the given character as per the rule, depending on whether we're encrypting or decrypting the text.
- Return the new string generated.

Example:

Sample Input :
Plain text: Welcome to Computer Technology

Scanned with CamScanner

Sample Output:
Cipher Text: z h o f r p h wr frpsxwhu whfkqrorjb

Conclusion:
The concept of Ceaser cipher is implemented sucessfully.

Viva Questions:
Q. 1.What is Caesar Cipher?
Q. 2 What is Brute Force Attack?
Q. 3 What is disadvantage of Caesar Cipher ?

Scanned with CamScanner