

Network Security

Cyber Security



Cyber Laws

The Word 'Cyber' Means

Cyber is a prefix that denotes a relationship with information technology (IT).

Common Cyber Words

Cyber is typically used as the prefix of a compound word. Commonly used cyber terms include.

Cyber Space :- A Metaphor describing the non-physical terrain created by computer system.

Cyber Crime :- Any crime carried out using IT or which targets IT.

Cyberbullying :- Any form of online harassment.

Cyber Security :- The technologies and processes designed to protect computers.

Cyber attacks :- The unauthorized access of private or confidential information contained on a computer system or work.

Cyber forensic :- Scientifically proven methods to gather, process, interpret and

use digital evidence to provide a conclusion.

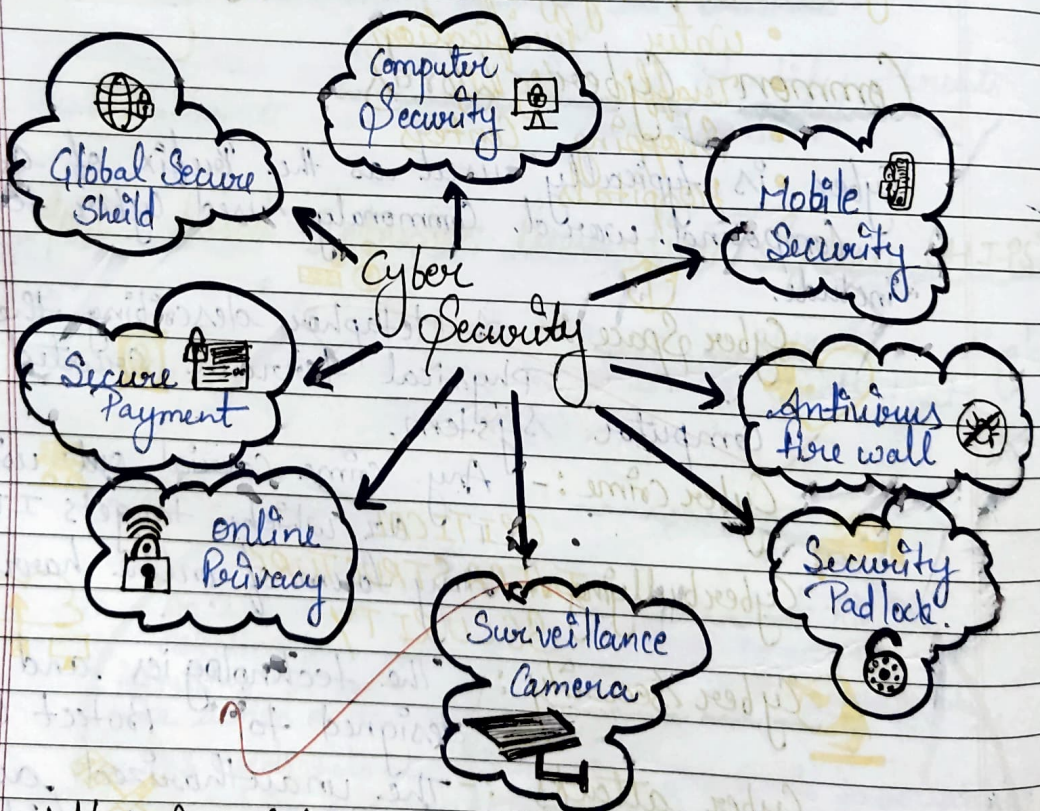
Cybernetics :- The Science of communication and automatic control system in both machines and living things.

Cyber Security

"Cyber Security is the application of technologies, Processes and Controls to Protect systems, networks, Programs, devices and data from cyber attacks."

It is also k/a information security or Electronic information security.

"Networks of Networks is called Internet"



Why is Cyber Security Important

It is important because it protects all categories of data from theft and damage. This includes sensitive data, personally identifiable information, data etc.

Types of Cyber Security

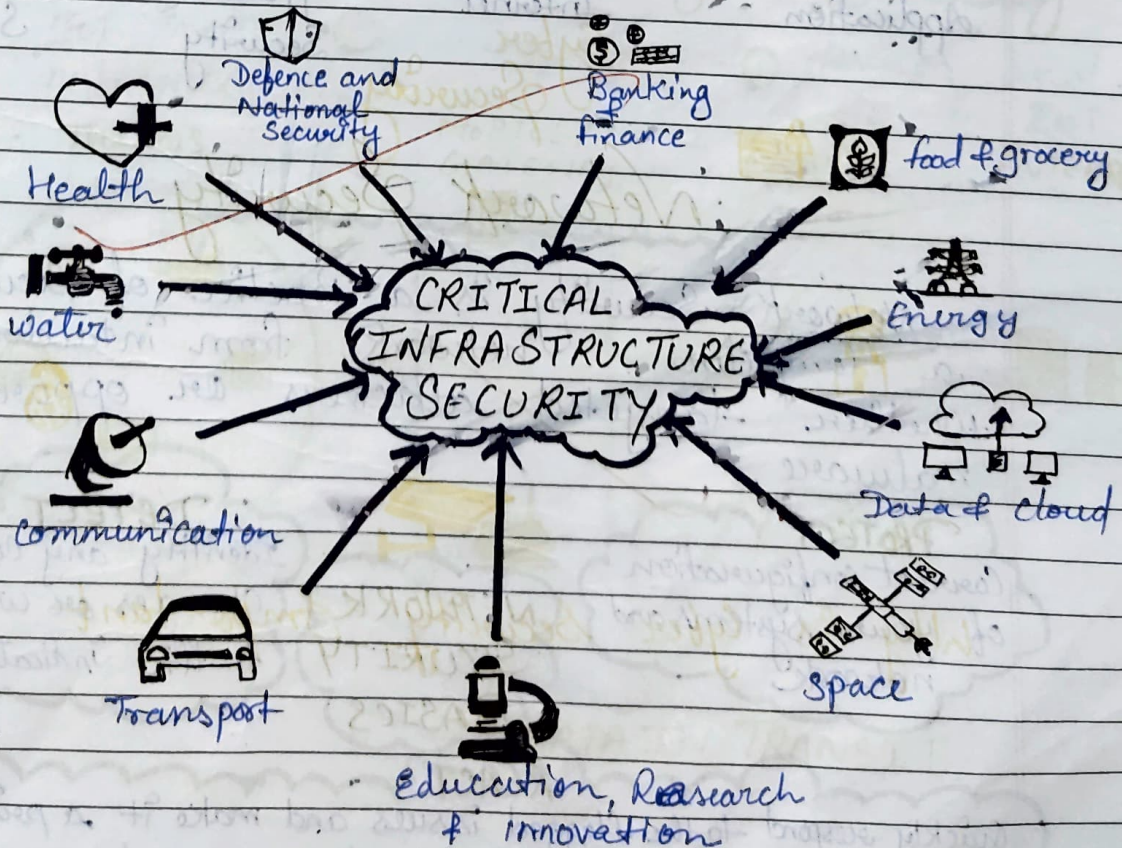
It is categorized into five distinct types:

- Critical Infrastructure Security
- Application Security
- Network Security
- Cloud Security
- Internet of Things (IoT) Security

Critical Infrastructure Security

It consists of the cyber physical system that modern societies rely on.

- e.g :-
- Electricity grid
 - Water Purification
 - Traffic lights
 - Shopping Centers
 - Hospitals

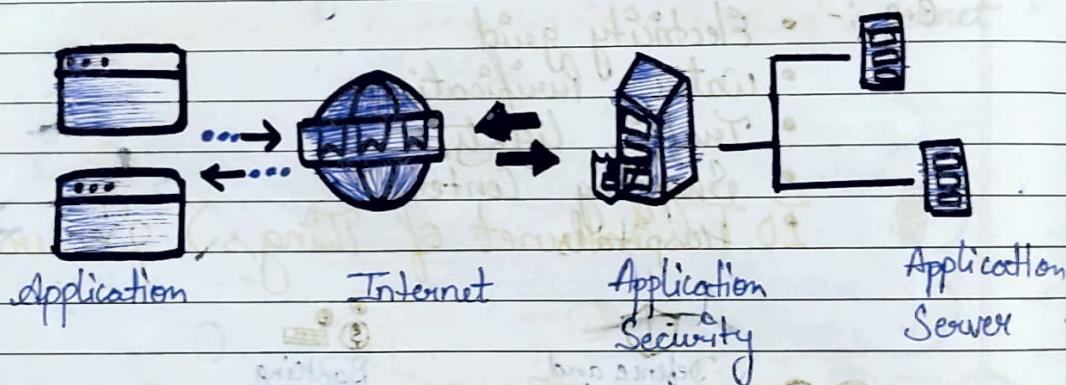


Application Security

Application Security uses software and hardware methods to tackle external threats than can cause in the development stage of an application. It is security as one of the several must-have security measures adopted to protect your System.

Types of Application Security

- Antivirus Programs
- Firewalls
- Encryption Programs



Network Security

Network Security is a practice of securing a computer network from intruders, whether targeted attackers or opportunistic malware.

PROTECT

Correct configuration of your systems and network

NETWORK SECURITY BASICS

DETECT

Identify any configuration changes or when network traffic indicates an issue

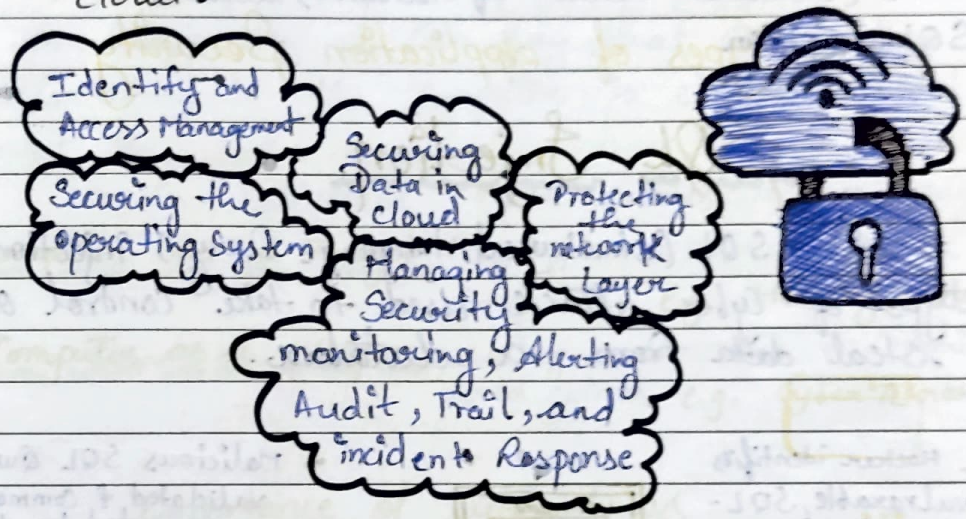
REACT

Quickly respond to the flagged issues and make it a priority to get the network secured and back to normal as quickly as possible.

Cloud Security

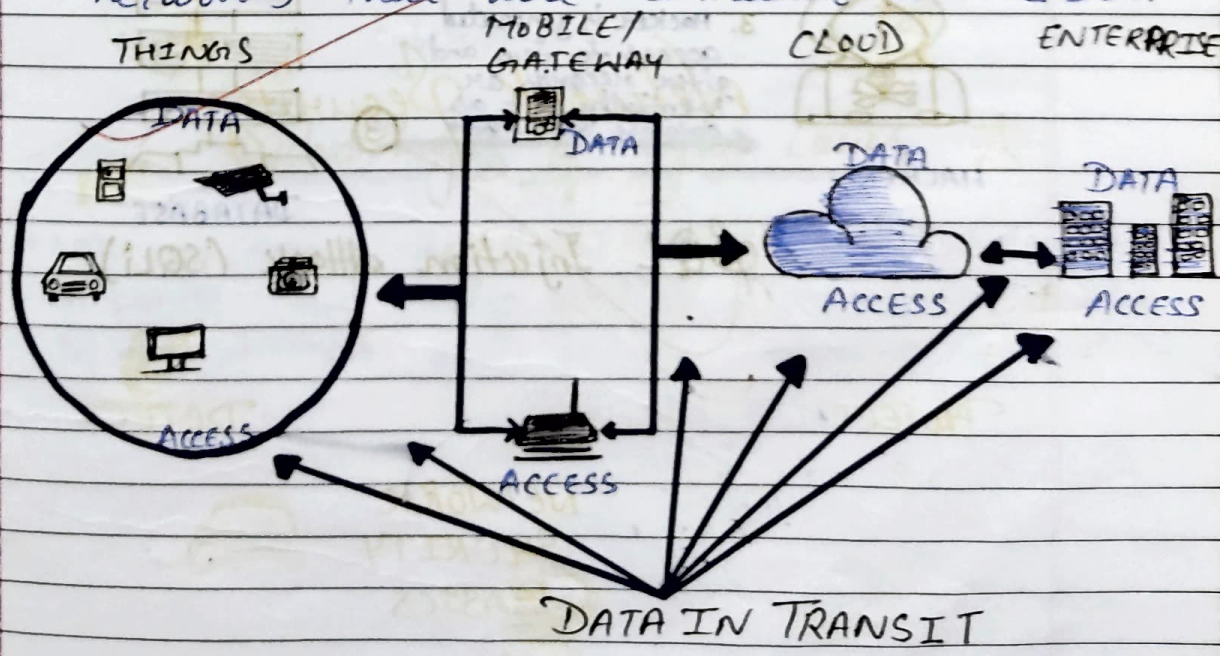
Cloud security is a software based security tool that protects and monitors the data in cloud resources.

"Cloud security is concerned with securing data application and infrastructure in the cloud."



IoT (Internet of Things) Security

IoT involves securing smart devices and networks that are connected to the IOT.



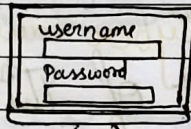
Cyber Threats

- Malware
- Backdoors
- Farmjacking
- Cryptojacking
- DNS (domain name system) Poisoning attacks
- DDoS (distributed denial-of-service) attacks
- SQL injection

SQL Injection

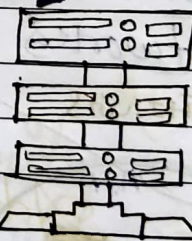
An SQL (structured language Query) injection is a type of cyber attack used to take control of and steal data from a database.

1. Hacker identifies vulnerable, SQL-driven website & injects malicious SQL query via input data

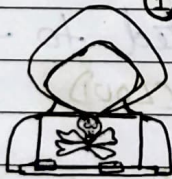


WEBSITE INPUT FIELDS

2. Malicious SQL Query is validated & command is executed by database



DATABASE



HACKER

3. Hacker is generated access to view and alter records or potentially act as database administrator

SQL Injection Attack (SQLi)

Cyber Law

Cyber law is a term to describe the legal issues related to use of communications technology, particularly "Cyberspace" i.e. the Internet.

Cyber Laws in INDIA

In simple way we can say that Cyber Crime is unlawful acts where in the computer is either a tool or a target or both.

We can categorize Cyber crimes in two ways:

Computer as a Target: using a computer to attack other computers. e.g. Hacking, virus/Dos attack etc.

Computer as a weapon: using a computer to commit real world crimes. e.g. Cyber Terrorism, EFT frauds etc.

Importance of Cyber Laws

Cyber law is important because it ~~touches~~ touches almost all aspects of transactions and activities on and concerning the internet, the world wide web and cyberspace.

Advantages of Cyber Laws

It has opened the doors for the entry of corporate companies for issuing Digital Signatures certificates in the business of being certifying authorities.