

## Assignment 2

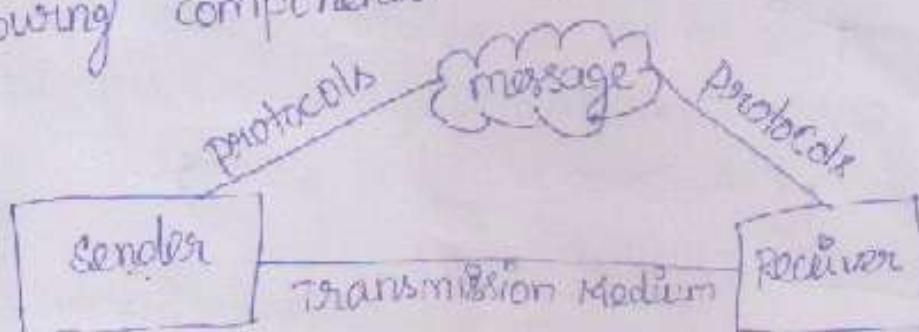
### Data Communication

Data communication specifically refers to the process of using computing & communication technologies to transfer data (the message) from a sender to a receiver - or even back & forth between participating parties.

Communication is defined as a process in which more than one computer transfers information, instruction to each other and for sharing resources. Or in other words, communication is a process or act in which we can send or receive data. A network of computers is defined as an interconnected collection of autonomous computers. Autonomous means of no computer can start, stop or control another computer.

Component of Data communication:

A communication system is made up of the following components:



Therefore, there are some set of rules (protocols) that is followed by every computer connected to the internet and they are (TCP) transmission control protocol & (IP) internet protocol. Types of data communication: i) Simplex communication. ii) Half Duplex communication. iii) Full-duplex communication.

## Assignment 3'

### communication & soft skill

#### Communication

Communication is commonly defined as the transmission of information. Its precise definition is disputed as there are disagreements about whether unintentional or failed transmissions are included and whether communication not only transmits meaning but also creates it.

#### soft skill

Soft & social skills can be called non-technical skills and three personal values and interpersonal skills that determine a person's ability to work well with others in a project team. Soft skills are related to deal. Soft skill refers to a set of personal attributes, behaviours and social attitude that enable individuals to interact effectively with others in a workplace or social environment. These skills are essential for building healthy relationships, communicating effectively, solving problems and collaborating with others. Soft skills are intangible and subjective qualities that cannot be measured or quantified like hard skills. They include communication, teamwork, problem-solving, critical thinking, adaptability, time management, leadership, creativity, emotional.

Soft skill are often developed through life experiences, practice & self-reflection and can be honed through various methods such as attending workshops, reading books, or seeking feedback from others.

# Assignment 4

## Web Technologies

### Web Technology:

Web technology refers to the means by which computers communicate with each other using markup languages & multimedia packages. It gives us a way to interact with hosted information, like websites.

**Types of web technology:**

HTML, CSS, JavaScript, Python, PHP and MySQL for the structure, styles, interactivity, server-side scripting and database management respectively. Advanced web technologies: advanced tools such as React JS, Ruby on Rails, Node.js, and MongoDB used in professional web technology.

Websites can be broadly classified into three main types: static websites, dynamic websites, and e-commerce websites. Each type has its own characteristics, advantages and use cases. Let's take a closer look at each of them.

### Hyper Text Markup Language

Web programming Learning web technology is essential today because Internet has become the number one source to information and many of the traditional. A method of communication unique to computer through the use of binary codes and directions. Least the definition of trends.

## Assignment 1:

# Fundamentals of IT & programming

## Information Technology:

Fundamentals of IT (in simple)  
defined, information technology (IT) is the use of computer & related technology, such as software, cloud-based applications, and networks to communicate or transmit data, build organizational infrastructure and secure information.

## Fundamental concept of IT

Information security, computer technical support, business software development and database and network management are four core IT concepts.

Computer programming is a step by step process of designing & developing various sets of computer programs to accomplish a specific computing outcome.

IT is a set of related fields that encompass computer systems, software, programming languages, data & information processing & storage.

## The fundamental programming:

The basic programming concepts includes variables, basic control structures, data structures, object-oriented programming, troubleshooting and debugging of various programming tools. These concepts are similar across various programming languages, such as python, c++, c and java.