**TCP/IP**

**TCP/IP=** is a set protocols designed to transmit data over computer networks, including the Internet

**TCP=** ensures(guaranteed) that data is delivered correctly

**IP=** indicates where to send them

**IP Address=** unique confidential number for device

We have two types of **IP Addresses**:

IPv4 : 192.168.100.10 Subnet ID: Numbers between 0-255

Host ID: Numbers between 1-254

Color: Subnet ID

Color: Host ID

Subnet Mask: 255.255.255.0 Numbers between: 0-255(0-254)

**Subnet ID** is like a number or address that tells you where in the network a computer or device is located.

**Subnet mask** is like a set of instructions that tells a computer how to divide an IP address into two parts: one part identifies the subnet and the other part identifies the specific device in that subnet.

**Host ID** is like a number or address that tells you which specific device or computer within the subnet is using that IP address. In Host ID numbers: 0 and 255 doesn't use (doesn't exist for user usage) because number 0 is the base IP of IP Address. Number 255 is a broadcast ID

\* If you want to take a lot of devices in one network, you should have the same **Subnet ID** and **Subnet Mask. Host ID** will be different for every device

Address of your computer (local or localhost): 127.0.0.1

It can also will show you if protocols TCP/IP work

Commands to check ip addresses:

Linux: ifconfig

ip addr

Windows: ipconfig