version of IP address

- IPV4
- IPV6

IP V4 Addressing

- It is 32 bit(4Byte) addresses consisting of two parts Network and Host

- Typically represented in doted decimal notation
  - Example 192.168.43.6(decimal)

- The address broken up into 4 octets
  - minimum value for an octet is o(All bit 0)
  - Maximum value for an octet is 255 (All Bits 1)

Ip address:-

0.0.0.0 to 255.255.255.255

IP V4 Classes

N=Network
H= Host

Class A= 0 to 126 — 0.0.0.0 to 126.255.255.255

Class B= 128 to 191 — 128.0.0.0 to 191.255.255.255

Class C= 192 to 223 — 192.0.0.0 to 223.255.255.255

Class D= 224 to 239 — 224.0.0.0 to 239.255.255.255 — Multicast

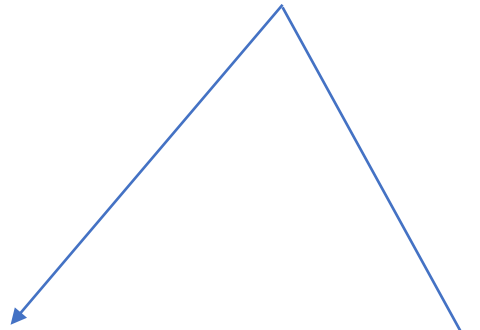
Class E= 240 to 255 — 240.0.0.0 to 255.255.255.255 — Reserved for research

IP V6

•IPV6 will make use of 128 bit IP Address

•An IPV6 Address is represented **as 8 group of 4 hexadecimal** digits , each group representing 16 bits (2 octets) . The group are separated by colons (:)
Eg
2001:0db8:85a3:0000:0000:8a2e:0370:7334.

IP Address Version



IPV4

-Length 32 bit
-Octet 4
-0 to 255
-4 billion address
-Numeric dot decimal notation
-192.168.1.1

IPV6

-Length 128 bit
-Octet 8
-0 to FFFF(65535)
-340 trillion address
-Alphanumeric hexadecimal notation
-3FBB:1085:4458:F78B:GH79:7HJ7:GH6H:GHT5--