## CN Mini Project Sec A Batch 1

## **Teammates:**

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## Topic:

20. Design a tool which, take ip along with mask as input and then, give the validity of the IP, along with first address, last address and the number of addresses in the block. Keeping the size of this block as constant, it should give at least other three blocks available of the same size with their network address.

## A Brief Abstract:

An IP address is a unique address that identifies a device on the internet or a local network. IP stands for "Internet protocol", which is the set of rules governing the format of data sent via the internet or local network.

Essentially, it is a numeric value assigned to a network device, and it is used for the identification and location of a network device.

IP addresses are assigned to every type of network device. It could be an IP camera, a laptop, a desktop device, an IP phone, a cell phone on a wireless network, computer servers, or websites. Even children's toys that are internet connected will have an IP address assigned to them.

IPs are broken up into IPv4 and IPv6. IPv4 is made up of a 32-bit address. IPv6 is the new standard and is made up of 128-bit addresses. IPv6 came out because all possible IPv4 addresses are close to being assigned, so IPv6 is the new standard.

We will be making a tool which will be determining the validity of IP along with mask and checking its existence. We will be making this tool simplistic user interface.