THE IP CALCULATER

--How i wrote : So i wrote ip calculater with the ip adress library python. İt was good and chill the library make it ahhaha:) For UI i use the python ui library streamlit. İts make it easier.

--What the code does: Takes an IP address (with CIDR) from the user,Example input: 192.168.1.10/24 ,CIDR (/24) tells how big the network is ,Creates a network object using Python’s ipaddress module ,This lets the program calculate things like network address, broadcast, and hosts. And returns all info ass dictionary..

--What does it calculate : Network adress , Broadcast Adress , Subnet Mask , Total IP , Usable host , First Host , Last host... Also can handle the networks like /31 i /32 .

```python
import ipaddress

def calculate(input):
    network = ipaddress.ip_network(input, strict=False)
    networkAdress = network.network_address
    broadcast = network.broadcast_address
    subnetMask = network.netmask
    totalTips = network.num_addresses

    if totalTips > 2:
        usable_hosts = totalTips - 2
        first_host = list(network.hosts())[0]
        last_host = list(network.hosts())[-1]
    else:
        usable_hosts = totalTips
        first_host = None
        last_host = None

    return {
        "network_address": str(networkAdress),
        "broadcast_address": str(broadcast),
        "subnet_mask": str(subnetMask),
        "total_ips": totalTips,
        "usable_hosts": usable_hosts,
        "first_host": str(first_host) if first_host else "N/A",
        "last_host": str(last_host) if last_host else "N/A"
    }

if __name__ == "__main__":
    ip_input = input("gir")
    if "/" not in ip_input:
        ip_input = ip_input.strip() + "/24"
    result = calculate(ip_input)
```

-- THE PROBLEMS AND THE THİNGS HAS TO BE DEVELOPED:

-- Firt The CIDR :As you can see even user not enter the cidr, my code add it the defoult ip user enter. İ made it couse the code was cras when user not enter it but , i thing its still nor so good it can be reason to many crashes still.

The soludition : I am gonna add the input that ask user for the CIDR (/32, /24) as you can see its now only /24. What would happend if user want to enter /32. This is why i will add this development..

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