

Code

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# Code by Arya Nair
def checkIP():
    ip=input("Enter IP: ")
    lengthIP=len(ip)
    if(lengthIP>15 or lengthIP<7):
        print("Invalid IP")
        return

    try:
        arrIP=list(map(int,ip.split('.')))
    except:
        print("Enter only numbers")
        return

    for i in arrIP:
        if(i<0 or i>255):
            print("Invalid IP")
            return

    first=f'{arrIP[0]:08b}'
    if(first[0]=='0'):
        print("This is a class A IP")
    elif(first[1]=='0'):
        print("This is a class B IP")
    elif(first[2]=='0'):
        print("This is a class C IP")
    elif(first[3]=='0'):
        print("This is a class D IP")
    else:
        print("This is a class E IP")
    return

if __name__=='__main__':
    checkIP()
```

Output-

```
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 125.17.16.127
This is a class A IP
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 172.17.16.127
This is a class B IP
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 195.17.16.127
This is a class C IP
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 225.17.16.127
This is a class D IP
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 245.17.16.127
This is a class E IP
PS D:\SY-IT-A1_45> █
```

```
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 245.17
Invalid IP
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 245.17.16.12A
Enter only numbers
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 245.260.16.12A
Enter only numbers
PS D:\SY-IT-A1_45> & C:/Users/EXAM/AppData/Local/Programs/Python/Python310/python.exe d:/SY-IT-A1_45/exp5.py
Enter IP: 245.17.16.1267
Invalid IP
PS D:\SY-IT-A1_45> █
```