Behiye Erdemir
240206013

CENG 421 NETWORK PROGRAMMING – ASSIGNMENT 1

1- Since I was at the school during the assignment, I performed the following operations, respectively, connected to the WiFi network.

I typed the “netstat -nr|grep default” on Terminal Application as can be seen in Figure 1. [1]

```
Behiye-MacBook-Pro:~ behiyeerdemir$ netstat -nr|grep default
default            10.8.32.1          UGSc           en0
default                               fe80::%utun0                    UGcI         utun0
default                               fe80::%utun1                    UGcI         utun1
```

Figure 1. Finding block of adress by using Terminal command.

Secondly, I tabbed the Network under the System Preferences Application. Then I checked the Router under the TCP/IP / Wifi. It was given in Figure 2.

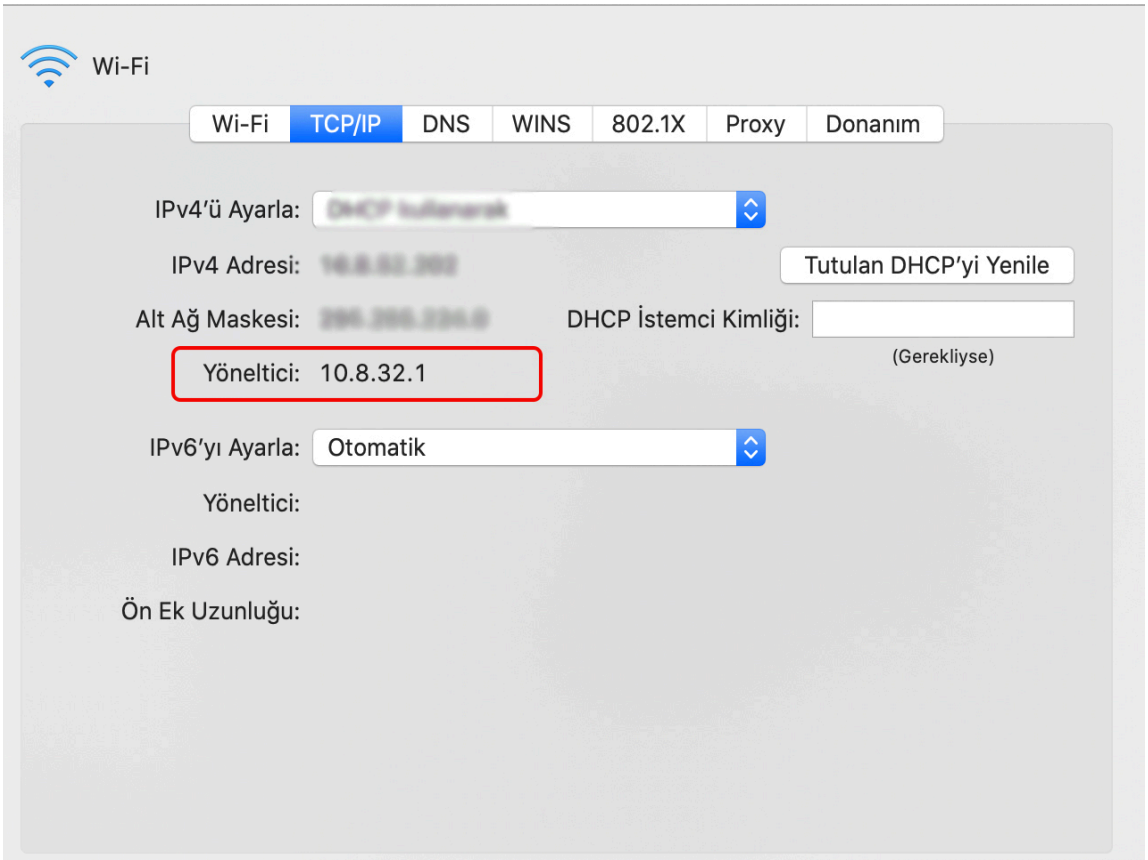

Figure 2. The block of adress on Network Application

The block of address is 10.8.32.1.

2- The Internet Service Provider (ISP) of the Internet that I used at home is Turkcell Superonline. The block adress is given in Figure 3.

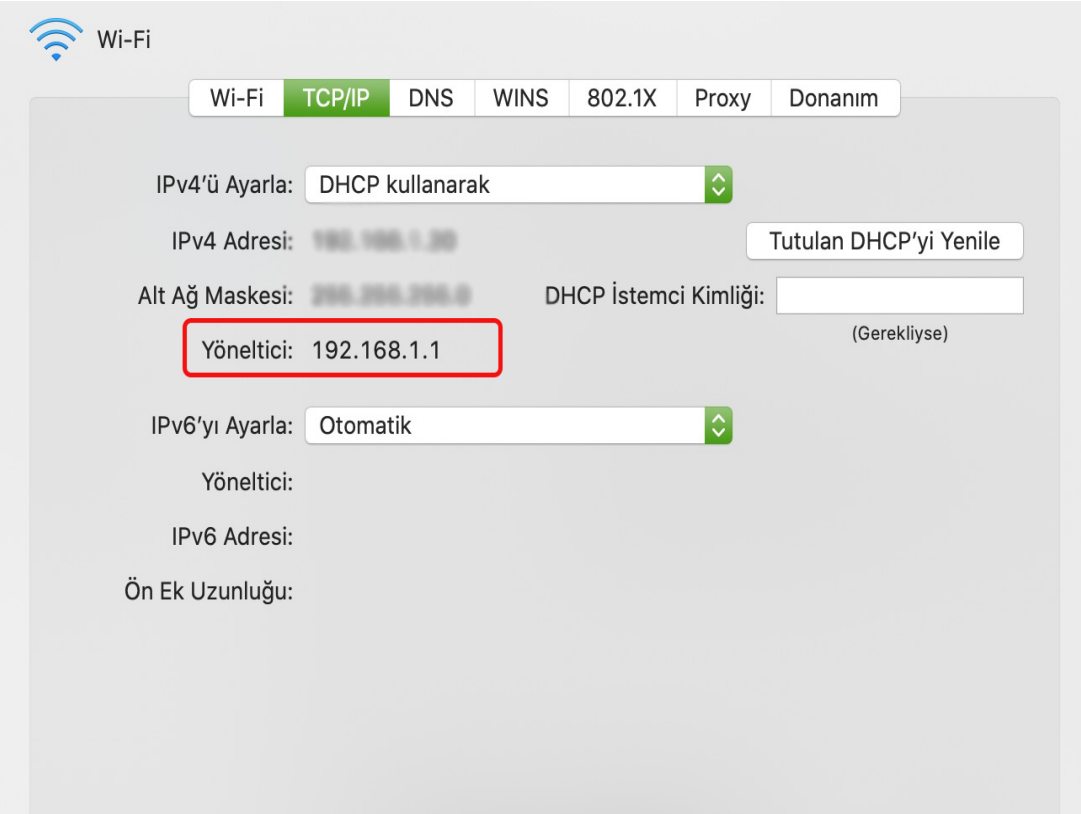

Figure 3. The ISP adress on Network Application.

The address is 192.168.1.1.

3- In classful addressing, the number of masks is default [2]. Granting large blocks causes that there are lots of IP addresses that don't be used. This is why IPv4 addresses have decreased. However, with the approach of the classless addressing that is used subnetting for clustering, IPv4 still can be used despite IPv6. So, classless addressing is a much more efficient way to grant addresses.

4- Izmir Institute of Technology using classful addressing. There are 4 C classes. They are listed as can be seen in Table 1.

Class Type	Start Adress	End Adress	Default Subnet Mask	CIDR
C Class	193.140.248.0	193.140.248.255	255.255.255.0	/24
C Class	193.140.249.0	193.140.249.255	255.255.255.0	/24
C Class	193.140.250.0	193.140.250.255	255.255.255.0	/24
C Class	193.140.251.0	193.140.251.255	255.255.255.0	/24

Table 1. IP adresses of Izmir Institute of Technology

References

[1] "Quickly Get a Router IP Address from the Command Line," 23 03 2012. [Online].

[2] B. A. Forouzan, Data Communications and Networking, 2000.