

## CN Practical no. 4 :- IP address class determination

```
#include <stdio.h>
#include <string.h>

int main() {
    char ip[16]; // Assuming IPv4 address as a string, e.g., "192.168.1.1"
    printf("Enter IP address: ");
    scanf("%s", ip);

    // Extract the first octet of the IP address
    int firstOctet = 0;
    sscanf(ip, "%d", &firstOctet);

    // Determine the IP address class based on the first octet
    if (firstOctet >= 1 && firstOctet <= 126) {
        printf("Class A\n");
    } else if (firstOctet >= 128 && firstOctet <= 191) {
        printf("Class B\n");
    } else if (firstOctet >= 192 && firstOctet <= 223) {
        printf("Class C\n");
    } else if (firstOctet >= 224 && firstOctet <= 239) {
        printf("Class D\n");
    } else if (firstOctet >= 240 && firstOctet <= 255) {
        printf("Class E\n");
    } else {
        printf("Invalid IP address\n");
    }

    return 0;
}
```

**Output :-**

```
Enter IP address: 187.186.14.139
Class B
```