Department of Computer Engineering

Class: S.Y. B.Tech. Semester: IV

Course Code: DJ19CEL405 Course Name: Computer Networks Lab

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Experiment No: 5

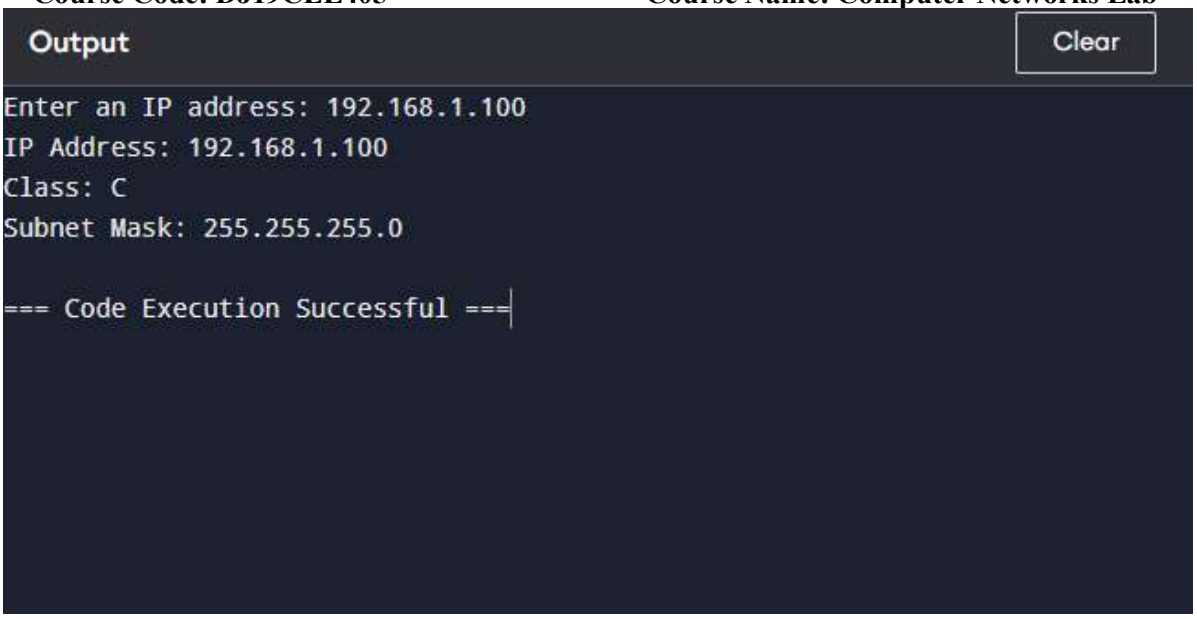
Aim: Write a program to identify the class and subnet address of the given IP Address.

Program:

```
def find_class_and_subnet(ip_address):
    # Split the IP address into octets
    octets = ip_address.split(".")

    # Convert the first octet to an integer
    first_octet = int(octets[0])

    # Determine the class of the IP address
    if 1 <= first_octet <= 126:
        ip_class = "A"
        subnet_mask = "255.0.0.0"
    elif 128 <= first_octet <= 191:
        ip_class = "B"
        subnet_mask = "255.255.0.0"
    elif 192 <= first_octet <= 223:
        ip_class = "C"
        subnet_mask = "255.255.255.0"
    elif 224 <= first_octet <= 239:
        ip_class = "D"
        subnet_mask = "Reserved for Multicast"
    elif 240 <= first_octet <= 255:
```

```
    ip_class = "E"
    subnet_mask = "Reserved for Future Use"
  else:
    ip_class = "Invalid"
    subnet_mask = "N/A"

  return ip_class, subnet_mask

# Input IP address
ip_address = input("Enter an IP address: ")

# Find the class and subnet mask
ip_class, subnet_mask = find_class_and_subnet(ip_address)

print(f"IP Address: {ip_address}")
print(f"Class: {ip_class}")
print(f"Subnet Mask: {subnet_mask}")
```

Screenshots:



Conclusion:

Thus, we have successfully studied and implemented a program to identify the class and subnet address of the given IP Address.