Experiment No: 10

Name: Aniket Balendra Tiwari

Roll No: 21143285

Program:

```
#include <iostream>
using namespace std;
void checkBinary()
{
   cout << "Enter Ip Address : ";
   string ip;
   cin >> ip;
   if (ip[0] == '0')
      cout << "Class A\n";
   else if (ip[0] == '1' && ip[1] == '0')
      cout << "Class B\n";
   else if (ip[0] == '1' && ip[1] == '1' && ip[2] == '0')
      cout << "Class C\n";
   else if (ip[0] == '1' && ip[1] == '1' && ip[2] == '1' && ip[3] == '0')
      cout << "Class D\n";
   else
      cout << "Class E\n";
}


void checkNumerical()
{
   cout << "Enter Ip Address : ";
   string ip;
   cin >> ip;

   string s;

   for (int i = 0;i < ip.size();i++) {
      if (ip[i] == '0')
         break;
      s += ip[i];
   }
   int n = stoi(s);

   if (n < 128)
      cout << "Class A\n";
   else if (n < 192)
      cout << "Class B\n";
```

```
    else if (n < 224)
        cout << "Class C\n";
    else if (n < 240)
        cout << "Class D\n";
    else
        cout << "Class E\n";
}


int main()
{
    int choice;
    cout << "\n1.Input IP in binary.\n2.Enter IP in numberical form\nEnter Your choice :";
    cin >> choice;

    switch (choice)
    {
    case 1:
        checkBinary();
        break;
    case 2:
        checkNumerical();
        break;

    default:
        cout << "Invalid Choice";
        break;
    }

    return 0;
}
```

Output:

For binary ip address

```
D:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\Colleg
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :1
Enter Ip Address : 10110101.00000100.10011101.10101010
Class B

d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\Colleg
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :1
Enter Ip Address : 00110101.00000100.10011101.10101010
Class A

d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\Colleg
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :11110101.00000100.10011101.10101010
Invalid Choice
d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\Colleg
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :1
Enter Ip Address : 11110101.00000100.10011101.10101010
Class E
```

for decimal ip address:

```
d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\College
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :2
Enter Ip Address : 192.168.1.1
Class C

d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\College
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :2
Enter Ip Address : 191.168.1.1
Class B

d:\Programming\College Experiments\TY 5 Sem\CN LAB>cd "d:\Programming\College
ming\College Experiments\TY 5 Sem\CN LAB\"EXP10

1.Input IP in binary.
2.Enter IP in numberical form
Enter Your choice :2
Enter Ip Address : 228.168.1.1
Class D
```