

ASSIGNMENT - 4

(Computer Networks Laboratory)

[Packet Tracer]

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Parity

```
#include <cstring>
#include <iostream>

using namespace std;

char evenParity(char msg[], int len) {
    int count = 0;
    for (int i = 0; i < len; i++) {
        if (msg[i] == '1') count++;
    }

    return (count % 2 == 0) ? '0' : '1';
}

char oddParity(char msg[], int len) {
    int count = 0;
    for (int i = 0; i < len; i++) {
        if (msg[i] == '1') count++;
    }

    return (count % 2 != 0) ? '0' : '1';
}

int main(int argc, char const *argv[]) {
    char msg[128];

    cout << "Enter the message: ";
    cin >> msg;
    int len = strlen(msg);
```

```

int ch;
cout << "1. Even parity \n2. Odd parity\nChoice: ";
cin >> ch;

char parityBit;
switch (ch) {
    case 1:
        parityBit = evenParity(msg, len);
        break;
    case 2:
        parityBit = oddParity(msg, len);
        break;
    default:
        exit(0);
}

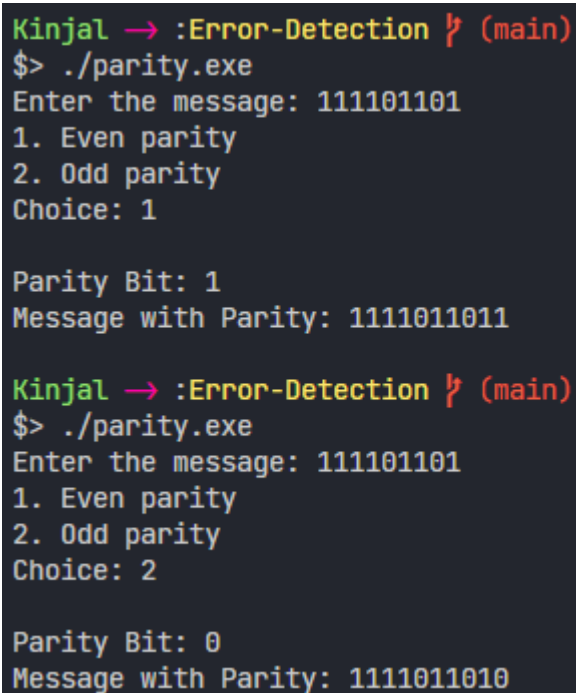
msg[len] = parityBit;
msg[len + 1] = '\\0';

cout << endl << "Parity Bit: " << parityBit << endl;
cout << "Message with Parity: " << msg << endl;

return 0;
}

```

Output



```

Kinjal → :Error-Detection ? (main)
$> ./parity.exe
Enter the message: 111101101
1. Even parity
2. Odd parity
Choice: 1

Parity Bit: 1
Message with Parity: 1111011011

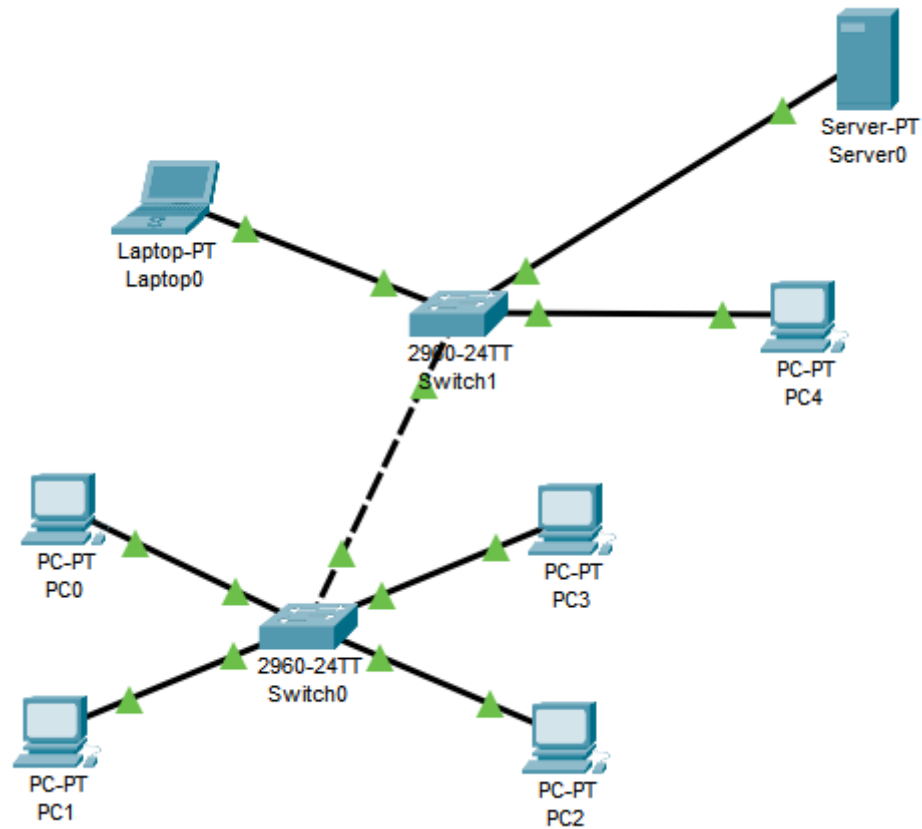
Kinjal → :Error-Detection ? (main)
$> ./parity.exe
Enter the message: 111101101
1. Even parity
2. Odd parity
Choice: 2

Parity Bit: 0
Message with Parity: 1111011010

```

DHCP Server

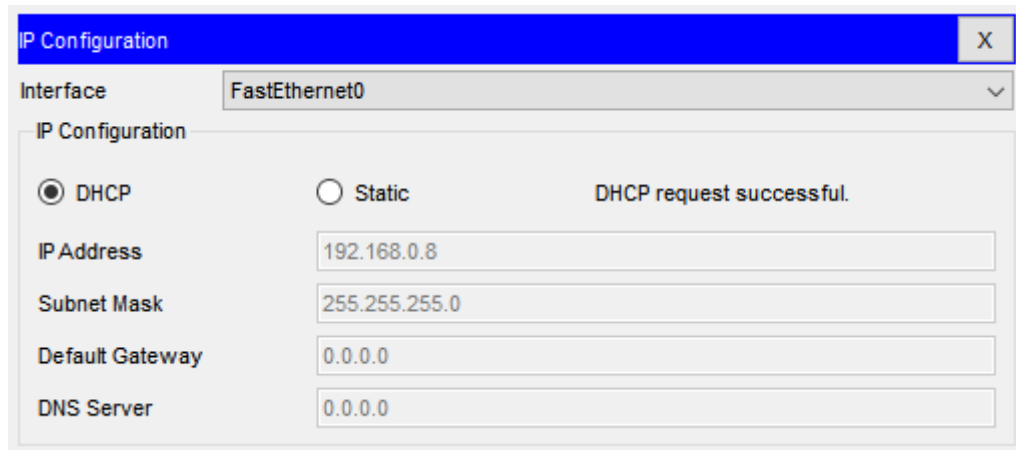
Connections



Server Configuration

IP Configuration	
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.0.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
DNS Server	0.0.0.0

Client Configuration

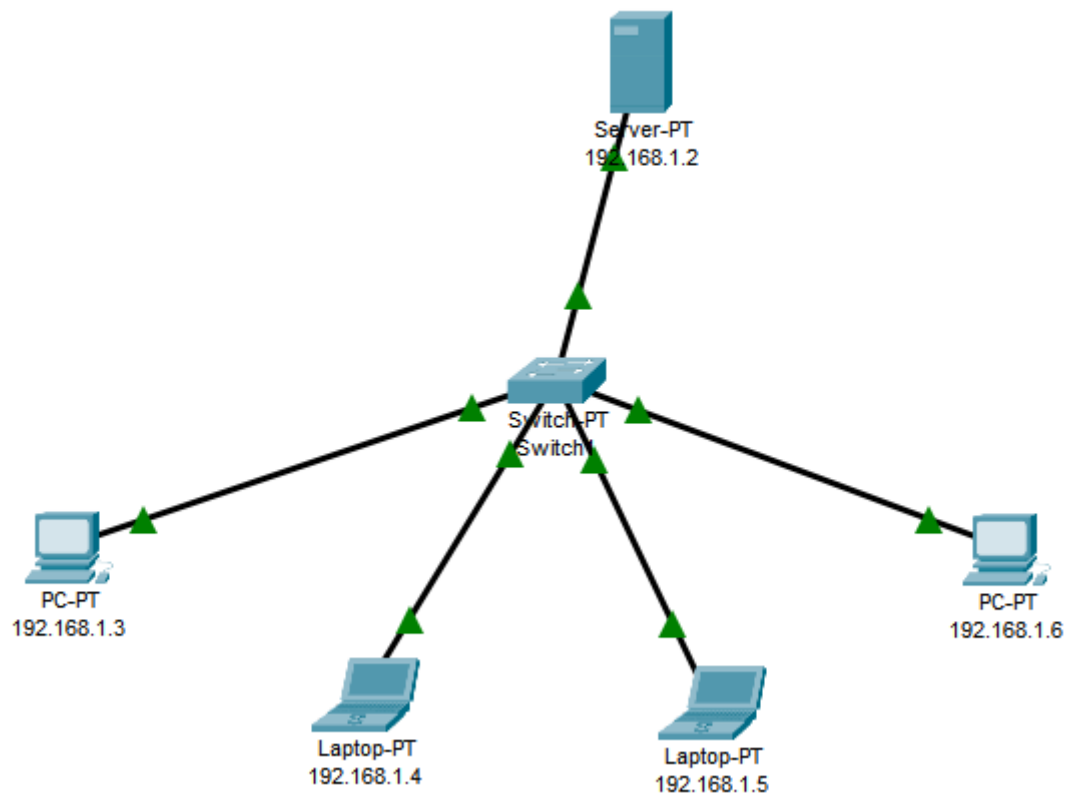


The image shows a network configuration window titled "IP Configuration". At the top, there is a blue header bar with the title and a close button (X). Below the header, the "Interface" is set to "FastEthernet0". The "IP Configuration" section contains two radio buttons: "DHCP" (selected) and "Static". To the right of these buttons, the text "DHCP request successful." is displayed. Below the radio buttons, there are four text input fields for network parameters:

Parameter	Value
IP Address	192.168.0.8
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

FTP Server

Connections



Server Configuration - IP

IP Configuration

IP Configuration

☐ DHCP ☒ Static

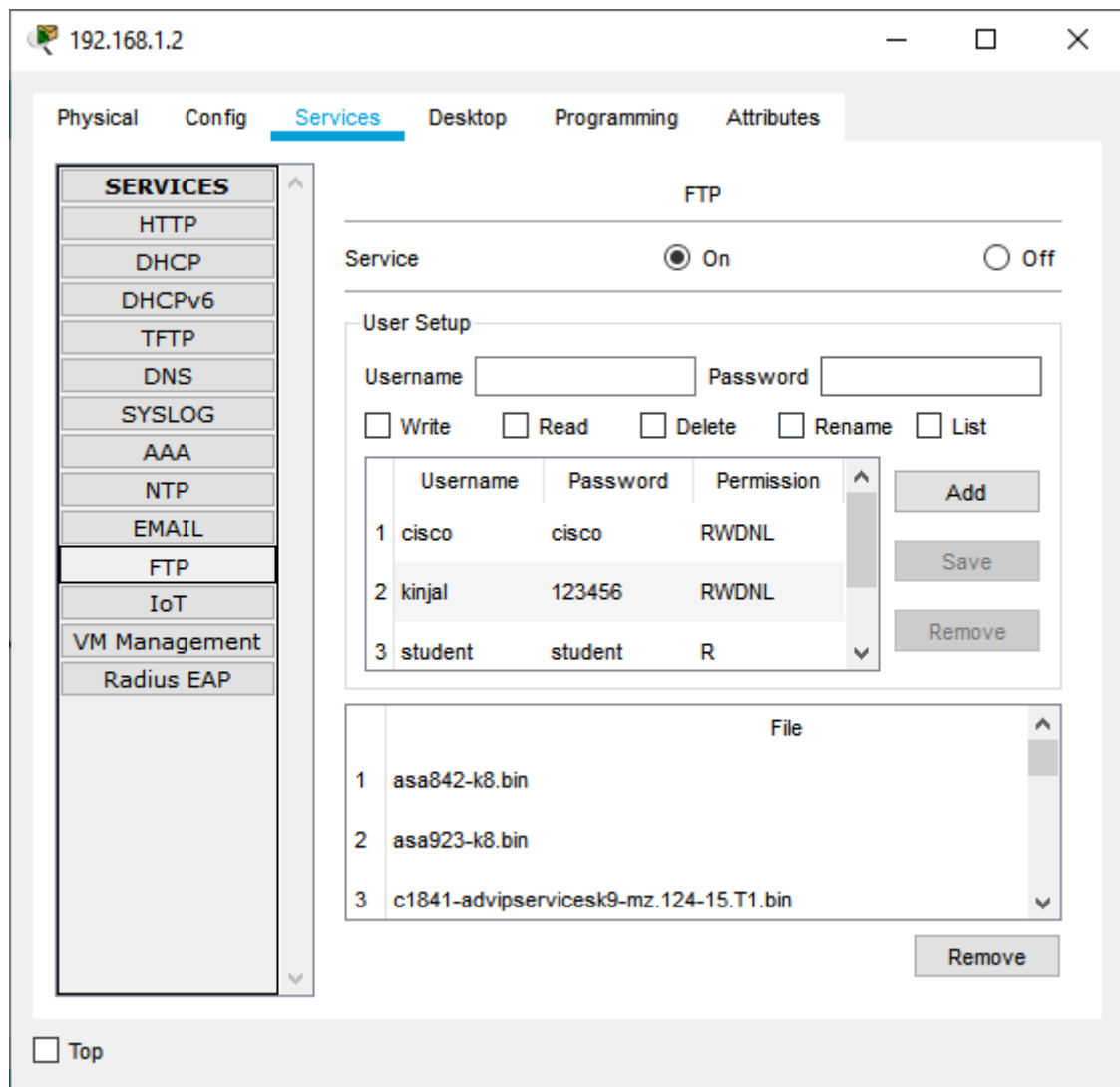
IP Address: 192.168.1.2

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Server Configuration - FTP



Client accessing FTP

```
Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.1.2
Trying to connect...192.168.1.2
Connected to 192.168.1.2
220- Welcome to PT Ftp server
Username:student
331- Username ok, need password
Password:
230- Logged in
```

(passive mode On)

ftp>dir

Listing /ftp directory from 192.168.1.2:

%Error ftp://192.168.1.2/ (No such file or directory Or
Permission denied)

550-Requested action not taken. permission denied).

221- Service closing control connection.

C:\>ftp 192.168.1.2

Trying to connect...192.168.1.2

Connected to 192.168.1.2

220- Welcome to PT Ftp server

Username:kinjal

331- Username ok, need password

Password:

230- Logged in

(passive mode On)

ftp>dir

Listing /ftp directory from 192.168.1.2:

0 : asa842-k8.bin 5571584

1 : asa923-k8.bin 30468096

2 : c1841-advipservicesk9-mz.124-15.T1.bin 33591768

3 : c1841-ipbase-mz.123-14.T7.bin 13832032

4 : c1841-ipbasek9-mz.124-12.bin 16599160

5 : c1900-universalk9-mz.SPA.155-3.M4a.bin 33591768

6 : c2600-advipservicesk9-mz.124-15.T1.bin 33591768

7 : c2600-i-mz.122-28.bin 5571584

8 : c2600-ipbasek9-mz.124-8.bin 13169700

9 : c2800nm-advipservicesk9-mz.124-15.T1.bin 50938004

10 : c2800nm-advipservicesk9-mz.151-4.M4.bin 33591768

11 : c2800nm-ipbase-mz.123-14.T7.bin 5571584

12 : c2800nm-ipbasek9-mz.124-8.bin 15522644

13 : c2900-universalk9-mz.SPA.155-3.M4a.bin 33591768

14 : c2950-i6q4l2-mz.121-22.EA4.bin 3058048

15 : c2950-i6q4l2-mz.121-22.EA8.bin 3117390

16 : c2960-lanbase-mz.122-25.FX.bin 4414921

17 : c2960-lanbase-mz.122-25.SEE1.bin 4670455

18 : c2960-lanbasek9-mz.150-2.SE4.bin 4670455

19 : c3560-advipservicesk9-mz.122-37.SE1.bin 8662192

20 : c3560-advipservicesk9-mz.122-46.SE.bin 10713279

21 : c800-universalk9-mz.SPA.152-4.M4.bin 33591768

22 : c800-universalk9-mz.SPA.154-3.M6a.bin 83029236

23 : cat3k_caa-universalk9.16.03.02.SPA.bin 505532849
24 : cgr1000-universalk9-mz.SPA.154-2.CG 159487552
25 : cgr1000-universalk9-mz.SPA.156-3.CG 184530138
26 : ir800-universalk9-bundle.SPA.156-3.M.bin 160968869
27 : ir800-universalk9-mz.SPA.155-3.M 61750062
28 : ir800-universalk9-mz.SPA.156-3.M 63753767
29 : ir800_yocto-1.7.2.tar 2877440
30 : ir800_yocto-1.7.2_python-2.7.3.tar 6912000
31 : pt1000-i-mz.122-28.bin 5571584
32 : pt3000-i6q4l2-mz.121-22.EA4.bin 3117390
ftp>