

```

{
    Source[Source_Size++]=c=='0'?0:1;
    c=getchar();
}
}

void Display_Result(bool *Source,int Source_Size)
{
    // to display the contents of Frame
    for(int i=0;i<Source_Size;i++)
        cout<<Source[i];
    cout<<endl;
}

void Display_CheckSum(bool *Hold,int Gen_Size,int flag)
{
    for(int i=flag+1;i<Gen_Size+flag;i++)
        cout<<Hold[i%Gen_Size];
}

int main() // 1101011011
{
    bool *Frame,*Generator,*Hold;
    int Frame_Size,Gen_Size,i,j,flag;
    Frame=new bool[MAX_SIZE];
    Hold=new bool[MAX_SIZE];
    Generator=new bool[MAX_SIZE];
    cout<<"\nEnter Frame : ";
    Scan_Data(Frame,Frame_Size); // Scanning Frame
    cout<<"\nEnter Generator : ";
    Scan_Data(Generator,Gen_Size); // Scanning Generator
    for(int i=0;i<Gen_Size-1;i++) // insterting Gen_Size-1 0's at end of Frame
        Frame[Frame_Size++]=0;
    for(i=0;Frame[i]!=Generator[0];) // when Hold < Generator
        i++;
    while(i<Gen_Size) // load Hold with initial data
        Hold[i]=Frame[i++];
    flag=0;
    for(j=Gen_Size;j<Frame_Size;)
    {
        // Display_Result(Hold,Gen_Size);
        int k;
        for(i=flag,k=1;k<Gen_Size;i++) // XORing Generator with dividend(i.e., Hold)
            Hold[i%Gen_Size]=Hold[(i+1)%Gen_Size]^Generator[k++];
        Hold[i%Gen_Size]=Frame[j++];
        // Display_Result(Hold,Gen_Size);
        while(Hold[flag%Gen_Size]!=Generator[0] && j<Frame_Size) // when Hold < Generator
            Hold[flag%Gen_Size]=Frame[j++],flag++;
    }
}

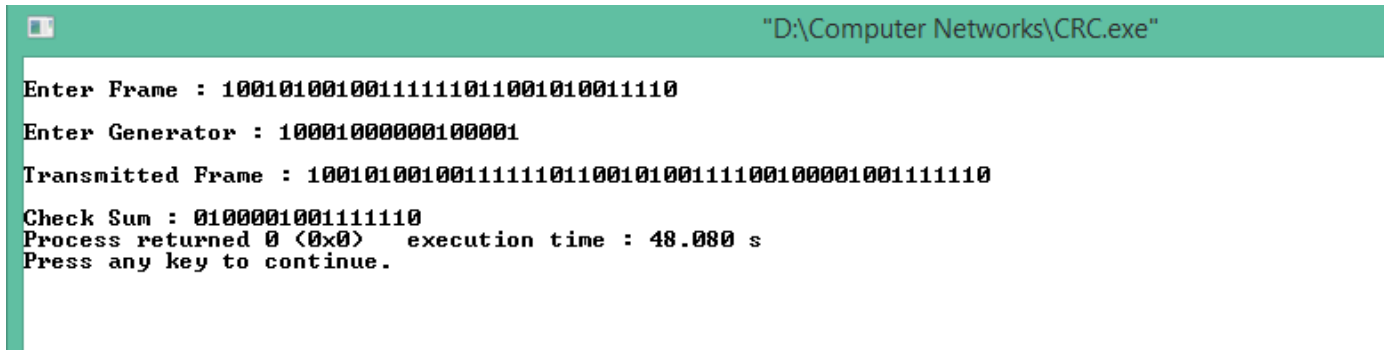
```

```

for(j=Frame_Size-Gen_Size;j<Frame_Size;flag++) // XORing remainder with dividend(i.e., Frame)
    Frame[j++]^=Hold[flag%Gen_Size];
cout<<"\nTransmitted Frame : ";
Display_Result(Frame,Frame_Size); // displaying resulting data
cout<<"\nCheck Sum : ";
Display_CheckSum(Hold,Gen_Size,flag); // displaying check sum
}

```

### **Results : -**



```

"D:\Computer Networks\CRC.exe"
Enter Frame : 1001010010011111011001010011110
Enter Generator : 10001000000100001
Transmitted Frame : 10010100100111110110010100111100100001001111110
Check Sum : 0100001001111110
Process returned 0 (0x0)   execution time : 48.080 s
Press any key to continue.

```