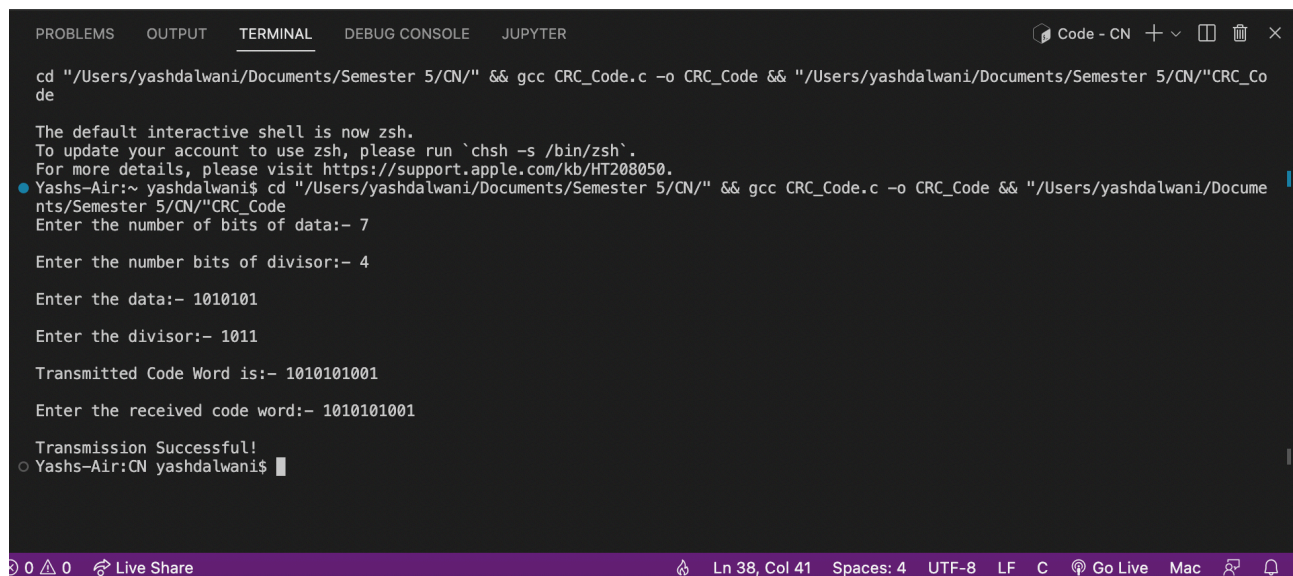**Program:-**

```c
#include<stdio.h>
char data[20],div[20],temp[4],total[100];
int i,j,datalen,divlen,len,flag=1;
void check();
int main()
{
    printf("Enter the number of bits of data:- ");
    scanf("%d",&datalen);
    printf("\nEnter the number bits of divisor:- ");
    scanf("%d",&divlen);
    len=datalen+divlen-1;
    printf("\nEnter the data:- ");
    scanf("%s",data);
    printf("\nEnter the divisor:- ");
    scanf("%s",div);

    for(i=0;i<datalen;i++)
    {
        total[i]=data[i];
        temp[i]=data[i];
    }
    for(i=datalen;i<len;i++)
        total[i]='0';
    check();
    for(i=0;i<divlen;i++)
        temp[i+datalen]=data[i];
    printf("\nTransmitted Code Word is:- %s",temp);
    printf("\n\nEnter the received code word:- ");
    scanf("%s",total);
    check();
    for(i=0;i<divlen-1;i++)
        if(data[i]=='1')
        {
            flag=0;
            break;
        }
    if(flag==1)
    printf("\nTransmission Successful!\n");
    else
    printf("\nReceived code word contains some error.\n");
}
void check()
{
```

```
        for(j=0;j<divlen;j++)
            data[j]=total[j];
        while(j<=len)
        {
            if(data[0]=='1')
                for(i = 1;i <divlen ; i++)
                    data[i] = (( data[i] == div[i])?'0':'1');
            for(i=0;i<divlen-1;i++)
                data[i]=data[i+1];
            data[i]=total[j++];
        }
}
```

Output:-