

Cycle II

LAB 13:

Aim : Write a program for error detecting code using CRC CCITT (16-bits).

```
/* This is a program to calculate CRC */
#include <stdio.h>
#include <string.h>
void main()
{
    char *data, *crc;
    int i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z;
    char *data = "1010101010101010";
    char *crc = "0000000000000000";
    int len = strlen(data);
    int len2 = strlen(crc);
    for (i = 0; i < len; i++)
    {
        data[i] = '0';
    }
    for (i = 0; i < len2; i++)
    {
        crc[i] = '0';
    }
    for (i = 0; i < len; i++)
    {
        for (j = 0; j < len2; j++)
        {
            if (data[i] == '1' && crc[j] == '1')
            {
                data[i] = '0';
                crc[j] = '1';
            }
            else if (data[i] == '0' && crc[j] == '1')
            {
                data[i] = '1';
                crc[j] = '0';
            }
            else if (data[i] == '1' && crc[j] == '0')
            {
                data[i] = '0';
                crc[j] = '0';
            }
            else if (data[i] == '0' && crc[j] == '0')
            {
                data[i] = '1';
                crc[j] = '1';
            }
        }
    }
    printf("Data: %s\n", data);
    printf("CRC: %s\n", crc);
}
```

```

def main():
    data = load()
    print ["Sum data in binary",
           sum(["x", "y", "z"])
    ]
    dataLength = len(data)
    cha = loadSum(17)
    calculateCAC(data, dataLength, loadSum)
    print ["Calculation of CAC: x, y, z in (data)"]
    cha = readCharSum(17)
    print ["Sum read CAC: 1"]
    sum = ["x", "y", "z", readCharSum]
    if (sum == readCharSum, loadSum) == 0.1
    print ["Data is char - full in", 5]
    else
    print ["Data reads char in"]

```

10014 (C.R.)

Case Date 10/20/2010

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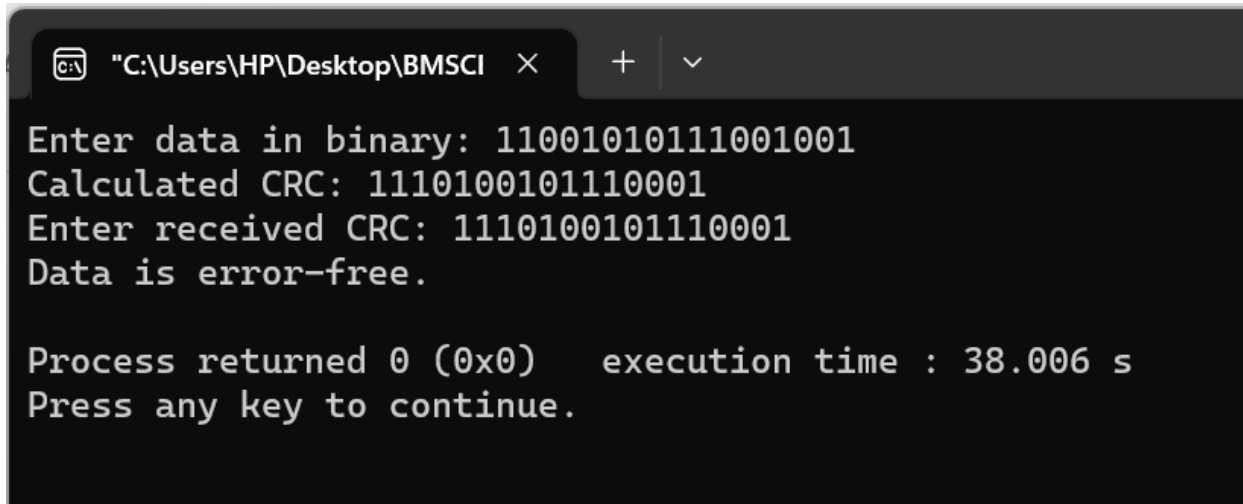
Page 100 9.2 : 11 0000 111

For date FO to return: 11/10/00

Date Recd: 11/00/20

no alk in hydrocarbon

Output :



```
"C:\Users\HP\Desktop\BMSCI" × + ▾  
Enter data in binary: 11001010111001001  
Calculated CRC: 1110100101110001  
Enter received CRC: 1110100101110001  
Data is error-free.  
  
Process returned 0 (0x0)    execution time : 38.006 s  
Press any key to continue.
```