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1BM19CS40

CRC prgm

```
def xor(a,b):
    result()
    for i in range (1, len(b)):
        if a[i] == b[i]:
            result.append('0')
        else:
            result.append('1').

        return "".join(result)


def mod2div (dividend, divisor):
        pick = len (divisor)

    tmp = dividend[0:pick]

    while pick < len (dividend):
        if temp[0] = '1':
            dividend (pick)
        else:
            tmp: xor (0*pick, tmp) +
                  dividend[pick]
        pick += 1
```

```
if tmp[0] == '1':
    temp = xor(dunsor, tmp)
else
    tmp = xor('0' * pick, tmp)

checkword = tmp
return checkword


def encodeData(data, key):
    l_key = len(key)

    append_data = "data+'0' * (l_key-1)
    remainder = mod2div(append_data, key)
    print("Modifer data" + str(append.and.data))
    codeword = data + remainder
    return codeword


def decodeData(code, key):
    remainder = mod2div(code, key)
    return remainder

data = '1011101'
Print ("Dataword : " + str(data)
      01 0 00000( 0000 (')
Print ("Generaly Plgraned :" + str(key)
```

```
codeword = encodeData (data, key)
print ("Transmilled codeword: " + str (codeword))
code = input ("Enter the transmilled codeword")
received_data = int (decodeData (code, key)).
   if received_data >= 0,
          print ("No error"
   else,
          print ("error detected").
```