CRC

```c
#include <conio.h>
#include <string.h>
#include<stdio.h>



void main() {
        int i,j,keylen,msglen;
        char input[100], key[30],temp[30],quot[100],rem[30],key1[30];

        printf("Enter Data: ");
        scanf("%s",&input);
        printf("Enter Key: ");
        scanf("%s",&key);
        keylen=strlen(key);
        msglen=strlen(input);
        strcpy(key1,key);
        for (i=0;i<keylen-1;i++) {
                input[msglen+i]='0';
        }
        for (i=0;i<keylen;i++)
         temp[i]=input[i];
        for (i=0;i<msglen;i++){
                quot[i]=temp[0];
                if(quot[i]=='0')
                 for (j=0;j<keylen;j++)
                 key[j]='0'; else
                 for (j=0;j<keylen;j++)
                 key[j]=key1[j];
                for (j=keylen-1;j>0;j--) {
                        if(temp[j]==key[j])
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                    rem[j-1]='0'; else

                        rem[j-1]='1';

            }

            rem[keylen-1]=input[i+keylen];

            strcpy(temp,rem);

        }

        strcpy(rem,temp);

        printf("\nQuotient is ");

        for (i=0;i<msglen;i++)

         printf("%c",quot[i]);

        printf("\nRemainder is ");

        for (i=0;i<keylen-1;i++)

         printf("%c",rem[i]);

        printf("\nFinal data is: ");

        for (i=0;i<msglen;i++)

         printf("%c",input[i]);

        for (i=0;i<keylen-1;i++)

         printf("%c",rem[i]);


}
```

OUTPUT:

```
Enter Data: 11110000111111
Enter Key: 1101

Quotient is 10111010110001
Remainder is 101
Final data is: 11110000111111101
```