

## CRC

### Input :

```
#include <stdio.h>
#include <string.h>
void main() {
    int i,j,keylen,msglen;
    char input[100], key[30],temp[30],quot[100],rem[30],key1[30];

    printf("Enter Data: ");
    gets(input);
    printf("Enter Key: ");
    gets(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])
                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

```
[admin@ACA8FC68 ~]$ gcc crc4.c
crc4.c: In function 'main':
crc4.c:8:6: warning: 'gets' is deprecated (declared at /usr/include/stdio.h:638) [-Wdeprecated-
declarations]
    gets(input);
    ^
crc4.c:10:6: warning: 'gets' is deprecated (declared at /usr/include/stdio.h:638) [-Wdeprecated-
declarations]
    gets(key);
    ^
[admin@ACA8FC68 ~]$ ./a.out
Enter Data: 10010111
Enter Key: 1001

Quotient is 10000111
Remainder is 111
Final data is: 100101111111[admin@ACA8FC68 ~]$
```