CYCLIC REDUNDANCY CHECK

```
#include <stdio.h>
 #include <conio.h>
 #include <string.h>
 int main() {
        int i,j,keylen,msglen;
        char input[100], key[30],temp[30],quot[100],rem[30],key1[30],flag=0;

        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("\n crc 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]);
        getch();

  for(i=0;i<keylen-1;i++)
  {
    if(rem[i]=='1')
      flag=1;
    else
      flag=0;

  }

  if(flag==0)
     printf("\n no error");
  else
     printf("\n error is detected");

  return 0;



}
```

C:\Users\jckar\Documents\crc1.exe

```
Enter Data: 100100
Enter Key: 1100

Quotient is 111000
 crc is 000
Final data is: 100100000
 no error
--------------------------------
Process exited after 26.01 seconds with return value 0
Press any key to continue . . .
```