

Cắt khoảng trắng, đếm từ

```
#include<iostream.h>
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include <ctype.h>
char * cktrang(char * st);// khi co 2 khoang trang lien tiep
char * cktrangdau(char * st);
char * cktrangcuoi(char * st);
char * HoaDauTu(char * st);
int DemTuCuaChuoi(char * st);
bool KiemTraChuoiDoiXung(char * st);
void DemSoLanXuatHienKyTu(char *s);

void main()
{

    char *st1, *str;
    st1= new char[100];
    fflush(stdin);//lam sach vung dem
    cout<<"ban hay nhap vao chuoi ";
    gets(st1);
    cout<< "\n cat kt dau\n";
    st1 = cktrangdau(st1);
    puts(st1);
    cout<<"\n cat kt cuoi\n";
    st1 =cktrangcuoi(st1);
    cout<<st1;
    cout<< "\n cat kt giua\n";
    st1=cktrang(st1);
    cout<< st1 ;
    st1=HoaDauTu( st1);
    cout<<"\n chuoi chuyen thanh chu hoa dau moi tu la";
    cout<< "\n"<<st1 ;
    cout<<"\nso tu cua chuoi la: "<<DemTuCuaChuoi(st1);
    // kiem tra chuoi doi xung
    if (KiemTraChuoiDoiXung(st1)==true)
        cout<<"\n la chuoi doi xung";
    else
        cout<<"\n la chuoi khong doi xung";
    cout<<"\nSO lan xuat hiec cac ky tu la:\n";
    DemSoLanXuatHienKyTu(st1);
    delete st1;
    getch();
}
```

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```
void DemSoLanXuatHienKyTu(char *s)
{
    int d=0;char ch;
    for( ch='A';ch<='z';ch++)
        {
            for(int i=0;i<strlen(s);i++)
                {
                    if(s[i]==ch)
                        d++;
                }
            if(d//<=>if(d>0)
                cout<<"ki tu "<<ch<<" xuất hiện "<<d<<" lần\n";
            d=0;
        }
}

bool KiemTraChuoiDoiXung(char * s)
{
    s=_strupr(s);//doi chuoi thanh chu hoa roi moi so sanh
    int l=strlen(s);
    for (int i=0,b=1;i<l/2;i++)
        if (*(s+i)!= *(s+l-i-1))
            return false;
    return true;
}

int DemTuCuaChuoi(char * st)
{
    int d=0;//so tu
    for (int i=0;i<strlen(st);i++)
        if (st[i]==' ' && st[i+1]!=' ')
            d++;
    if (st[0]!=' ')
        d++;
    return d;
}

char * HoaDauTu(char * s)
{
    s=strlwr(s);// chuyen thanh chuoi chu thuong
    s[0]=toupper(s[0]);
    for (int i=0; i<strlen(s);i++)
        if (s[i]==' ')
            s[i+1]=toupper(s[i+1]);
    return s;
}

char * cktrang(char * st)
{

```

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```
char * p;
p=new char[100];

    while (p=strstr(st, " "))
        strcpy(st+(strlen(st)-(strlen(p))),p+1);

return st;

}
char * cktrangdau(char * st)
{

    while (st[0]==' ')
        strcpy(st, st+1);
return st;

}
char * cktrangcuoi(char * st)
{

int l;
l=strlen(st);

while (st[l-1]==' ')
{

    st[l-1]='\0';
    l=strlen(st);
}
return st;
}
```