

```

#include <stdio.h>

#include <string.h>

typedef struct
{
    char hovaten[55];
    int tuoi;
    float hsl;
    int phucap;
    int socon;
}Congnhan;

void nhapmang(Congnhan a[], int n); // ham nhap mang cong nhan
void inmang(Congnhan a[], int n); // ham in mang cong nhan
int timmax(Congnhan a[], int n); // ham tim cong nhan co thu nhap cao nhat, tra ve vi tri
int timmin(Congnhan a[], int n); // ham tim cong nhan co thu nhap thap nhat, tra ve vi tri
void sapxep(Congnhan a[], int n); // ham sap xep mang cong nhan theo thu nhap
int thunhap(Congnhan cn); // ham tinh thu nhap cua mot cong nhan

int main()
{
    Congnhan cn[1000];
    char ten[55];
    int n, i;
    printf("Nhap so cong nhan n=");
    scanf("%d", &n);
    nhapmang(cn, n);
}

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printf("Mang vua nhap la:\n");

inmang(cn, n);

printf("Cong nhan co thu nhap lon nhat la: %s, thu nhap %d\n", cn[timmax(cn, n)].hovaten,
thunhap(cn[timmax(cn, n)]));

printf("Cong nhan co thu nhap nho nhat la: %s, thu nhap %d\n", cn[timmin(cn, n)].hovaten,
thunhap(cn[timmin(cn, n)]));

printf("Nhap ten cua cong nhan:");

fflush(stdin);

gets(ten);

fflush(stdin);

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

    if(strcmp(cn[i].hovaten,ten)==0) // string compare

    {

        printf("Tuoi:%d\n", cn[i].tuoi);

        printf("He so luong: %.2f\n", cn[i].hsl);

        printf("Thu nhap: %d\n", thunhap(cn[i]));

    }

sapxep(cn, n);

printf("Mang sau khi sap xep la:\n");

inmang(cn, n);

return 0;

}

```

```

void nhapmang(Congnhan a[], int n) // ham nhap mang cong nhan

{

    inti;

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

```

```

    {
        printf("Nhap ho ten:");
        fflush(stdin);
        gets(a[i].hovaten);
        fflush(stdin);
        printf("Nhap tuoi:");
        scanf("%d", &a[i].tuoi);
        printf("Nhap he so luong:");
        scanf("%f", &a[i].hsl);
        printf("Nhap phu cap:");
        scanf("%d", &a[i].phucap);
        printf("Nhap so con:");
        scanf("%d", &a[i].socon);
    }
}

void inmang(Congnhan a[], int n) // ham nhap mang cong nhan
{
    int i;
    for(i=0;i<n;i++)
    {
        printf("Ho ten:%s\n",a[i].hovaten);
        printf("Tuoi:%d\n", a[i].tuoi);
        printf("He so luong: %.2f\n", a[i].hsl);
        printf("Phu cap:%d\n", a[i].phucap);
        printf("So con:%d\n", a[i].socon);
    }
}

```

```
}
```

```
int thunhap(Congnhan cn)
```

```
{
```

```
    return cn.hsl*1150 + cn.phucap;
```

```
}
```

```
int timmax(Congnhan a[], int n) // ham tim cong nhan co thu nhap cao nhat, tra ve vi tri
```

```
{
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```
    int vtmax = 0;
```

```
    int i;
```

```
    for(i=1;i<n;i++)
```

```
        if(thunhap(a[i])>thunhap(a[vtmax]))
```

```
            vtmax = i;
```

```
    return vtmax;
```

```
}
```

```
int timmin(Congnhan a[], int n) // ham tim cong nhan co thu nhap thap nhat, tra ve vi tri
```

```
{
```

```
    int vtmin = 0;
```

```
    int i;
```

```
    for(i=1;i<n;i++)
```

```
        if(thunhap(a[i])<thunhap(a[vtmin]))
```

```
            vtmin = i;
```

```
    return vtmin;
```

```
}
```

```

void sapxep(Congnhan a[], int n) // ham sap xep mang cong nhan theo thu nhap
{
    int i, j;
    char hovaten1[55];
    int tuoi1;
    float hsl1;
    int phucap1;
    int socon1;
    int vtmax;
    for(i=0;i<n;i++)
    {
        vtmax = i;
        for(j=i;j<n;j++)
            if(thunhap(a[j])>thunhap(a[vtmax]))
                vtmax = j;
        if(vtmax!=i)
        {
            strcpy(hovaten1, a[vtmax].hovaten);
            strcpy(a[vtmax].hovaten, a[i].hovaten);
            strcpy(a[i].hovaten, hovaten1);
            tuoi1 = a[vtmax].tuoi;
            a[vtmax].tuoi = a[i].tuoi;
            a[i].tuoi = tuoi1;
            hsl1 = a[vtmax].hsl;
            a[vtmax].hsl = a[i].hsl;
            a[i].hsl = hsl1;
            phucap1 = a[vtmax].phucap;

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```
a[vtmax].phucap = a[i].phucap;
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```
a[i].phucap = phucap1;
```

```
socon1 = a[vtmax].socon;
```

```
a[vtmax].socon = a[i].socon;
```

```
a[i].socon = socon1;
```

```
}
```

```
}
```

```
}
```