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#include<stdio.h>

#include<conio.h>

#include<string.h>

typedef struct SINHVIEN
{
    char MASV[15];
    char TENSX[30];
    int NAMSINH;
    float DIEM;
};

void NhapSV(SINHVIEN sv[100], int &n);
void XuatSV(SINHVIEN sv[100], int n);
void DiemTrungBinh(SINHVIEN sv[100], int n);
void MaxDiem(SINHVIEN sv[100], int n);
void MinDiem(SINHVIEN sv[100], int n);
void TimKiem(SINHVIEN a[100], int n, char
MaCanTim[15]);

void Tim_SV_A(SINHVIEN a[100],int n);
void Tim_SV_g(SINHVIEN sv[100],int n);
void XoaSV(SINHVIEN sv[50],int &n);
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void DemSV(SINHVIEN sv[50],int n);

void XuatLonHon7(SINHVIEN sv[50], int n);

void main()
{
    SINHVIEN sv[30];

    int n;

    char MaCanTim[15];

    NhapSV(sv,n);

    XuatSV(sv,n);

    DemSV(sv,n);

    XuatLonHon7(sv,n);

    getch();
}

// Ham con xu ly tren Kieu Du Lieu Sinh Vien

void NhapSV(SINHVIEN sv[100], int &n)
{
    printf("\n Nhap vao so sinh vien cua lop
");scanf("%d",&n);

    fflush(stdin);

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

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        {
            printf("\n Nhap vao ban sinh vien thu %d
", i);

            printf("\n Nhap vao MASV
"); gets(sv[i].MASV);

            printf("\n Nhap vao TENSX
"); gets(sv[i].TENSX);

            printf("\n Nhap vao NAMSINH
"); scanf("%d", &sv[i].NAMSINH);

            printf("\n Nhap vao DIEMTB
"); scanf("%f", &sv[i].DIEM);

            fflush(stdin);
        }
    }

void XuatSV(SINHVIEN sv[100], int n)
{
    printf("\n DANH SACH SINH VIEN BAN VUA NHAP LA
");

    printf("\nSTT\tMASV\tTENSX\tNAMSINH\tDIEM");

    printf("\n-----
-----");
}

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

        printf("\n%d\t%s\t%s\t%d\t%.2f",i+1,sv[i].MASV,
sv[i].TENSX,sv[i].NAMSINH,sv[i].DIEM);

        printf("\n-----
-----");
    }

void DiemTrungBinh(SINHVIEN sv[100], int n)
{
    float tb=0;

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

        tb=tb+sv[i].DIEM;

    printf("\n\t\t DIEM TRUNG BINH = %.2f",tb/n);
}

void MaxDiem(SINHVIEN sv[100], int n)
{
    float max=sv[0].DIEM;

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

        if(max<sv[i].DIEM)    max=sv[i].DIEM;

    printf("\n\t\t DIEM MAX = %.2f",max);
}

```

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}

void MinDiem(SINHVIEN sv[100], int n)
{
    float min=sv[0].DIEM;

    for(int i=1;i<n;i++)
        if(min>sv[i].DIEM)    min=sv[i].DIEM;

    printf("\n\t\t DIEM MIN = %.2f",min);
}

void TimKiem(SINHVIEN a[100], int n, char
MaCanTim[15])
{
    printf("\n Nhap vao MASV can tim
");gets(MaCanTim);

    for(int i=0;i<n;i++)
        if(strcmp(a[i].MASV,MaCanTim)==0)
        {
            printf("\n Da Tim Thay Du Lieu ");

            printf("\nSTT\tMASV\tTENS\tNAMSINH\tDIEM");

```

```

printf("\n-----
-----");

printf("\n%d\t%s\t%s\t%d\t%.2f",i+1,a[i].MASV,a
[i].TENSX,a[i].NAMSINH,a[i].DIEM);

printf("\n-----
-----");

}

}

```

// Tim SV co ten bat dau bang chu A

```

void Tim_SV_A(SINHVIEN sv[100],int n)
{
printf("\n Ten SV bat dau bang 'A' ");
for(int i=0;i<n;i++)
    if(sv[i].TENSX[0]=='A')

printf("\n%d\t%s\t%s\t%d\t%.2f",i+1,sv[i].MASV,
sv[i].TENSX,sv[i].NAMSINH,sv[i].DIEM);

}

```

// Tim SV co ten ket thuc bang chu g

```

void Tim_SV_g(SINHVIEN sv[100],int n)
{
    int len;
    printf("\n Ten SV ket thuc bang 'g' ");
    for(int i=0;i<n;i++)
    {
        len=strlen(sv[i].TENSV);
        if(sv[i].TENSV[len-1] == 'g')

        printf("\n%d\t%s\t%s\t%d\t%.2f",i+1,sv[i].MASV,
sv[i].TENSV,sv[i].NAMSINH,sv[i].DIEM);

    }
}

// Xoa SV

void XoaSV(SINHVIEN sv[100],int &n)
{
    for(int i=0;i<n;i++)
        if(sv[i].DIEM==0)
        {
            sv[i]=sv[i+1];

```

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        i--;
    }

    n--;

    XuatSV(sv,n);
}

```

// Cau 05: Dem xem co bao nhieu sinh vien sinh nam 1999

```

void DemSV(SINHVIEN sv[50],int n)
{
    int dem=0;

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

        if(sv[i].NAMSINH==1999)

            dem++;

    printf("\n Co %d SV co nam sinh 1999",dem);
}

```

// Cau 06: Xuat theo dieu kien diem>7

```

void XuatLonHon7(SINHVIEN sv[50], int n)
{
    printf("\n DANH SACH SINH VIEN CO DIEM LON HON
7 ");
}

```

```

printf("\nSTT\tMASV\tTENS\tNAMSINH\tDIEM");

printf("\n-----
-----");

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

    if( sv[i].DIEM>7)

        printf("\n%d\t%s\t%s\t%d\t%.2f",i+1,sv[i].MASV,
sv[i].TENS,sv[i].NAMSINH,sv[i].DIEM);

        printf("\n-----
-----");

}

```