void TimNhanVien(NhanVien\* nv, int n, FILE\* f = stdout) {

int Phong;

printf("\nNhap phong :");

scanf("%d",&Phong);

char Ten[50];

printf("\nNhap Ten :");

fflush(stdin);

gets(Ten);

bool check = false;

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

if (strcmp(nv[i].HoTen, Ten) == 0 && Phong == nv[i].Phong) {

fprintf(f, "Tìm Thấy:\n");

fprintf(f, "Mã: %d -- Họ Tên: %s -- Hệ Số Lương: %d -- Phòng: %d\n", nv[i].Ma, nv[i].HoTen, nv[i].HeSoLuong, nv[i].Phong);

check = true;

break;

}

}

if (!check) {

printf("Không tìm thấy.\n");

}

}

void TimKiemNhanVien (NhanVien \*nv ,int n, FILE \*f=stdout){

char HoTen[50];

int Phong;

printf("\nNhap Ten Phong :");

scanf("%d",&Phong);

printf("\nNhap Ten Nhan Vien :");

fflush(stdin);

gets(HoTen);

int dem=0;

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

if (strcmp(nv[i].HoTen, HoTen) == 0 && nv[i].Phong == Phong) {

printf("Ma Nhan Vien: %d -- Ho Ten: %s -- He So Luong: %.2f -- Phong: %d\n", nv[i].Ma, nv[i].HoTen, nv[i].HeSo, nv[i].Phong);

fprintf(f, "Ma Nhan Vien: %d -- Ho Ten: %s -- He So Luong: %.2f -- Phong: %d\n", nv[i].Ma, nv[i].HoTen, nv[i].HeSo, nv[i].Phong);

dem=1;

break;

}

}

if (dem==0) {

printf("Khong The Tim Thay Nhan Vien.\n");

}

}

void kcMin(Diem\* d, int n) {

int khoangcachmin = INT\_MAX;

int h1 = 0, t1 = 0, h2 = 0, t2 = 0;

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

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

int khoangcach = abs(d[i].hoanh - d[j].hoanh) + abs(d[i].tung - d[j].tung);

if (khoangcach < khoangcachmin) {

khoangcachmin = khoangcach;

h1 = d[i].hoanh;

t1 = d[i].tung;

h2 = d[j].hoanh;

t2 = d[j].tung;

}

}

}

printf("\nTat ca cac doan thang co khoang cach Manhattan nho nhat la:");

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

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

int khoangcach = abs(d[i].hoanh - d[j].hoanh) + abs(d[i].tung - d[j].tung);

if (khoangcach == khoangcachmin) {

printf("\n%d %d %d %d", d[i].hoanh, d[i].tung, d[j].hoanh, d[j].tung);

}

}

}

}

void NhapHo (ThiSinh \*sv,int n){

float tong=0;

int dem=0;

char ho[30];

printf("\nNhap Ho:");

gets(ho);

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

if(strncmp(ho,sv[i].HoTen,strlen(ho))==0){

tong+=sv[i].Diem;dem++;

}

}

if(dem>0){

float tb= tong/dem;

printf("\nDiem Trung binh cua cac thi sinh mang ho %s la:%.2f",ho,tb);

}

}

void TimSach (Sach \*s,int n,FILE \*f=stdout){

int gia;

char Ten[50];

printf("\nNhap gia:");

scanf("%d",&gia);

printf("\nNhap ten sach :");

fflush(stdin);

gets(Ten);

bool check=false;

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

if(strcmp(s[i].TenSach,Ten)==0 && s[i].Gia==gia){

fprintf(f,"\nTim Thay Sach .\n");

fprintf(f,"\nMa Sach:%d--Ten Sach :%s--Ten Tac Gia:%s--Nam Xuat Ban :%d--Gia:%d",

(s)[i].MaSach,(s)[i].TenSach,(s)[i].TacGia,(s)[i].NamXB,(s)[i].Gia);

check=true;

break;

}

}

if(check==false){

fprintf(f,"\nKhong tim thay sach");

}

}

float TinhDienTich(Diem A, Diem B, Diem C){

float AB = sqrt(pow(B.hoanh - A.hoanh, 2) + pow(B.tung - A.tung, 2));

float BC = sqrt(pow(C.hoanh - B.hoanh, 2) + pow(C.tung - B.tung, 2));

float AC = sqrt(pow(C.hoanh - A.hoanh, 2) + pow(C.tung - A.tung, 2));

float p = (AB + BC + AC) / 2.0;

return sqrt(p \* (p - AB) \* (p - BC) \* (p - AC));

}

void SVuongMax(Diem\* d, int n) {

float Smax = 0;

Diem maxA, maxB, maxC;

bool check = false;

for (int i = 0; i < n - 2; i++) {

for (int j = i + 1; j < n - 1; j++) {

for (int k = j + 1; k < n; k++) {

float S = TinhDienTich(d[i], d[j], d[k]);

if (Smax < S && pow(d[j].hoanh - d[i].hoanh, 2) + pow(d[j].tung - d[i].tung, 2)

+ pow(d[k].hoanh - d[j].hoanh, 2) + pow(d[k].tung - d[j].tung, 2)

== pow(d[k].hoanh - d[i].hoanh, 2) + pow(d[k].tung - d[i].tung, 2)) {

Smax=S;

maxA = d[i];

maxB = d[j];

maxC = d[k];

check = true;

}

}

}

}

if (check) {

printf("\nTam giac vuong co dien tich lon nhat:\n");

printf("A(%d, %d) - B(%d, %d) - C(%d, %d)\n", maxA.hoanh, maxA.tung, maxB.hoanh, maxB.tung, maxC.hoanh, maxC.tung);

printf("Dien tich: %.2f", Smax);

} else {

printf("\nKhong co tam giac vuong trong day diem.");

}

}