#include <stdio.h>

#include <iostream>

#include <iomanip>

#include <stdlib.h>

#include <vector>

using namespace std;

struct nhanvien {

char ten[50];

int maNV;

char sdt[20];

char chucVu[20];

float heSoLuong;

} kieuNhanVien;

int main() {

int n;

cout << "Cau truc nhan vien su dung thu vien vector" << endl;

cout << "Nhap so luong nhan vien: ";

cin >> n;

vector<nhanvien> dsNV;

int index;

for (index=0;index<n;index++) {

dsNV.push\_back(nhanvien());

cout << "Nhap ten nhan vien: ";

cin >> dsNV[index].ten;

cout << "Nhap ma nhan vien: ";

cin >> dsNV[index].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> dsNV[index].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> dsNV[index].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> dsNV[index].heSoLuong;

}

cout << endl;

cout <<"=======================" << endl << "Danh sach nhan vien" << endl;

for (index=0;index<n;index++) {

cout << "Ten nhan vien: ";

cout << dsNV[index].ten << endl;

cout << "Ma nhan vien: ";

cout << dsNV[index].maNV << endl;

cout << "So dien thoai nhan vien: ";

cout << dsNV[index].sdt << endl;

cout << "Chuc vu nhan vien: ";

cout << dsNV[index].chucVu << endl;

cout << "He so luong nhan vien: ";

cout << fixed << setw(2) << setprecision(2) << dsNV[index].heSoLuong << endl;

}

char loopCond = 1;

char action;

while (loopCond == 1) {

cout << endl << "=======================" << endl;

cout << "(T: them; X: xoa; S: sua, D: danh sach NV, K: ket thuc)" << endl;

cout << "Hay chon hanh dong muon chinh sua: ";

cin >> action;

int ma;

switch (action) {

case 'T':

index = dsNV.size();

dsNV.push\_back(nhanvien());

cout << "Nhap ten nhan vien: ";

cin >> dsNV[index].ten;

cout << "Nhap ma nhan vien: ";

cin >> dsNV[index].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> dsNV[index].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> dsNV[index].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> dsNV[index].heSoLuong;

break;

case 'X':

cout << "Nhap ma nhan vien can xoa: ";

cin >> ma;

for (index=0;index<dsNV.size();index++) {

if (dsNV[index].maNV == ma) {

dsNV.erase(dsNV.begin()+index);

}

}

break;

case 'S':

cout << "Nhap ma nhan vien can sua: ";

cin >> ma;

for (index=0;index<dsNV.size();index++) {

if (dsNV[index].maNV == ma) {

cout << "Nhap thong tin moi cho nhan vien" << endl;

cout << "Nhap ten nhan vien: ";

cin >> dsNV[index].ten;

cout << "Nhap ma nhan vien: ";

cin >> dsNV[index].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> dsNV[index].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> dsNV[index].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> dsNV[index].heSoLuong;

}

}

break;

case 'D':

cout << "Ten cac nhan vien trong danh sach" << endl;

for (index=0;index<dsNV.size();index++)

cout << dsNV[index].ten << " " << endl;

break;

case 'K':

default:

loopCond = 0;

}

}

}

#include <stdio.h>

#include <iostream>

#include <iomanip>

#include <stdlib.h>

#include <vector>

using namespace std;

struct nhanvien {

char ten[50];

int maNV;

char sdt[20];

char chucVu[20];

float heSoLuong;

} kieuNhanVien;

int main() {

int n;

cout << "Cau truc nhan vien su dung thu vien vector" << endl;

cout << "Nhap so luong nhan vien: ";

cin >> n;

struct nhanvien \*dsNV = (struct nhanvien\*) malloc(n \* (sizeof(struct nhanvien)));

int index;

for (index=0;index<n;index++) {

cout << "Nhap ten nhan vien: ";

cin >> dsNV[index].ten;

cout << "Nhap ma nhan vien: ";

cin >> dsNV[index].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> dsNV[index].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> dsNV[index].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> dsNV[index].heSoLuong;

}

cout << endl;

cout <<"=======================" << endl << "Danh sach nhan vien" << endl;

for (index=0;index<n;index++) {

cout << "Ten nhan vien: ";

cout << dsNV[index].ten << endl;

cout << "Ma nhan vien: ";

cout << dsNV[index].maNV << endl;

cout << "So dien thoai nhan vien: ";

cout << dsNV[index].sdt << endl;

cout << "Chuc vu nhan vien: ";

cout << dsNV[index].chucVu << endl;

cout << "He so luong nhan vien: ";

cout << fixed << setw(2) << setprecision(2) << dsNV[index].heSoLuong << endl;

}

char loopCond = 1;

char action;

while (loopCond == 1) {

cout << endl << "=======================" << endl;

cout << "(T: them; X: xoa; S: sua, D: danh sach NV, K: ket thuc)" << endl;

cout << "Hay chon hanh dong muon chinh sua: ";

cin >> action;

int ma;

struct nhanvien \*temp;

switch (action) {

case 'T':

temp = (struct nhanvien\*) malloc((n+1) \* sizeof(struct nhanvien));

for (index=0;index<n;index++) {

temp[index] = dsNV[index];

}

cout << "Nhap ten nhan vien: ";

cin >> temp[n].ten;

cout << "Nhap ma nhan vien: ";

cin >> temp[n].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> temp[n].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> temp[n].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> temp[n].heSoLuong;

n = n+1;

dsNV = temp;

break;

case 'X':

cout << "Nhap ma nhan vien can xoa: ";

cin >> ma;

for (index=0;index<n;index++) {

if (dsNV[index].maNV == ma) {

for (index=index;index<n-1;index++) {

dsNV[index] = dsNV[index+1];

}

}

}

n--;

break;

case 'S':

cout << "Nhap ma nhan vien can sua: ";

cin >> ma;

for (index=0;index<n;index++) {

if (dsNV[index].maNV == ma) {

cout << "Nhap thong tin moi cho nhan vien" << endl;

cout << "Nhap ten nhan vien: ";

cin >> dsNV[index].ten;

cout << "Nhap ma nhan vien: ";

cin >> dsNV[index].maNV;

cout << "Nhap so dien thoai nhan vien: ";

cin >> dsNV[index].sdt;

cout << "Nhap chuc vu nhan vien: ";

cin >> dsNV[index].chucVu;

cout << "Nhap he so luong nhan vien: ";

cin >> dsNV[index].heSoLuong;

}

}

break;

case 'D':

cout << "Ten cac nhan vien trong danh sach" << endl;

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

cout << dsNV[index].ten << " " << endl;

break;

case 'K':

default:

loopCond = 0;

}

}

}