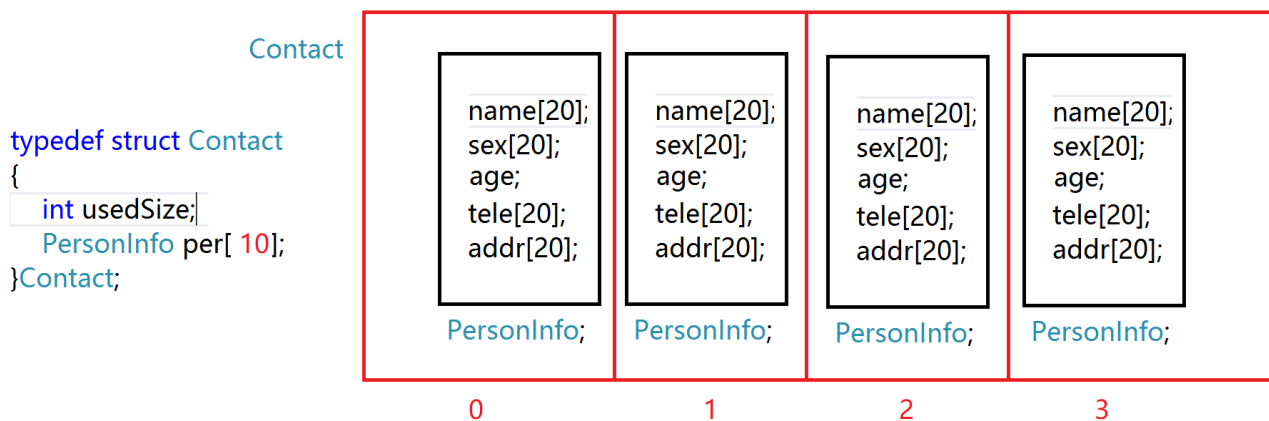


简单通讯录的实现

1、整体结构



2、具体实现

contact.h实现

```
#define MAX_NUMPERSON 10
typedef struct PersonInfo
{
    char name[20];
    char sex[20];
    int age;
    char tele[20];
    char addr[20];
}PersonInfo;
typedef struct Contact
{
    int usedSize;
    PersonInfo per[MAX_NUMPERSON];
}Contact;
void InitContact(Contact *pCon);
void AddContact(Contact *pCon);
//找到返回下标 找不到返回-1 姓名查找
int SearchContact(Contact *pCon);
void DelContact(Contact *pCon);
void ShowContact(Contact *pCon);
void ClearContact(Contact *pCon);
void DestroyContact(Contact *pCon);
```

contact.c

```
#include"contact.h"
void InitContact(Contact *pCon)
{
```

```

    assert(pCon != NULL);
    pCon->usedSize = 0;
    ///对数组进行初始化
    memset(pCon->per, 0, sizeof(pCon->per));
}

void AddContact(Contact *pCon)
{
    if (pCon->usedSize == MAX_NUMPERSON)
    {
        printf("不好意思老铁, 通讯录满了\n");
        return;
    }
    printf("请输入姓名: ");
    scanf("%s", pCon->per[pCon->usedSize].name);
    printf("请输入性别: ");
    scanf("%s", pCon->per[pCon->usedSize].sex);
    printf("请输入年龄: ");
    scanf("%d", &(pCon->per[pCon->usedSize].age));
    printf("请输入电话: ");
    scanf("%s", pCon->per[pCon->usedSize].tele);
    printf("请输入地址: ");
    scanf("%s", pCon->per[pCon->usedSize].addr);
    pCon->usedSize++;
    printf("添加成功\n");
}

///找到返回下标 找不到返回-1 姓名查找
int SearchContact(Contact *pCon)
{
    int i = 0;
    char name[20];
    if (pCon->usedSize == 0)
    {
        printf("通讯录为空\n");
        return -1;
    }
    printf("请输入姓名: ");
    scanf("%s", name);
    for (i = 0; i < pCon->usedSize; i++)
    {
        if (strcmp(pCon->per[i].name, name) == 0)
        {
            return i;
        }
    }
    return -1;
}

void DelContact(Contact *pCon)
{
    int index = SearchContact(pCon);
    int i = 0;
    if (index == -1)
    {

```

```

        printf("查无此人\n");
        return;
    }
    //删除
    for (i = index; i < pCon->usedSize - 1; i++)
    {
        pCon->per[i] = pCon->per[i + 1];
    }
    pCon->usedSize--;
    printf("删除成功\n");
}
void ShowContact(Contact *pCon)
{
    int i = 0;
    printf("%-20s %-10s %-10s %-11s %-15s\n", "姓名", "性别", "年龄", "电话", "地址");
    for (i = 0; i < pCon->usedSize; i++)
    {
        printf("%-20s %-10s %-10d %-11s %-15s\n", pCon->per[i].name,
            pCon->per[i].sex, pCon->per[i].age, pCon->per[i].tele, pCon->per[i].addr);
    }
}
void ClearContact(Contact *pCon)
{
    pCon->usedSize = 0;
}

```

test.c

```

void menu()
{
    printf("*****1.add*****2.search*****\n");
    printf("*****3.del*****4.show*****\n");
    printf("*****5.clear*****6.Destroy*****\n");
    printf("*****0.exit*****\n");
}

void start()
{
    int input = 0;
    //初始化通讯录 数组 usedSize
    Contact con;
    InitContact(&con);
    do
    {
        menu();
        printf("请输入你的操作>>");
        scanf("%d", &input);
        switch (input)
        {
            case 1:
                AddContact(&con);

                break;

```

```
        case 2:
            SearchContact(&con);
            break;
        case 3:
            DelContact(&con);
            break;
        case 4:
            ShowContact(&con);
            break;
        case 5:
            ClearContact(&con);
            break;
    }
} while (input);
}

int main()
{
    start();
    return 0;
}
```