**DataBase**

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**정유석**

* Implementation of a simple phone book

Your phone book should store the information not in the main memory but in a file.

There are three major functions:

1. Insert a new record (name, phone number, address)

2. Find a record with name

3. Delete a record with name

\*Assume that there is no duplicate names.

**CODE**

#include<stdio.h>

#include<string.h>

typedef struct {

int number;

char name[20];

char address[30];

}contact;

contact my\_contact[200];

void insert\_record();

void delete\_record();

int find\_record();

void main(){

FILE\* write = fopen("PhoneBook.txt","w");

int i,choice;

while(1){

choice = 0;

//Phone book menu

printf(" --------------- Phone book Menu --------------- \n");

printf(" 1. Insert a new record (name, phone number, address) \n");

printf(" 2. Find a record with name \n");

printf(" 3. Delete a record with name\n");

printf(" 4. Exit the Phone book \n\n");

//Receive the number

printf("Input your Number : ");

scanf("%d",&choice);

fflush(stdin);

if(choice == 1){ //Insert section

insert\_record();

}

else if(choice == 2) // find section

find\_record();

else if(choice == 3) // Delete section

delete\_record();

else if(choice == 4){ // Exit the phone book

printf("\nExit the Phone Book \n\n");

break;

}

else{ // Exception

printf("\nWrong Input Number !! \n");

break;

}

}

// It is store the information in a file

fprintf(write,"------------------ PHONE BOOK ------------------\n");

for(i=0; i<200; i++){

if(my\_contact[i].number != NULL){

fprintf(write,"Name : %s \n",my\_contact[i].name);

fprintf(write,"Number : %d \n",my\_contact[i].number);

fprintf(write,"Address : %s \n\n",my\_contact[i].address);

}

}

fclose(write);//close the file

}

void insert\_record(){ //Insert section

int number,i;

for(number=0; number<200; number++){

if(my\_contact[number].number == NULL){ //Confirm the order

printf("\n Enter the Name : "); //Receive the information

gets(my\_contact[number].name);

fflush(stdin);

printf(" Enter the Phone Number : ");

scanf("%d",&my\_contact[number].number);

fflush(stdin);

printf(" Enter the address : ");

gets(my\_contact[number].address);

fflush(stdin);

for(i=0; i<200; i++){

if(i != number){ //If they are duplicate (using name, phone number) , Not store this information

if(strcmp(my\_contact[number].name,my\_contact[i].name)==0 && my\_contact[number].number == my\_contact[i].number){

printf("-- This name , number duplicate --\n");

my\_contact[number].number = NULL;

break;

}

}

else if(i==199)

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

else

continue;

}

break;

}

else if(number==199){ //if full the phone book, than exit the loop

printf("Full the Phone book !\n");

break;

}

else{

continue;

}

}

}

//Delete Section

void delete\_record(){

char name[20];

int i;

printf(" \n Enter the Delete Name : ");

gets(name);

fflush(stdin);

for(i=0; i<200; i++){

if(my\_contact[i].number != NULL){ //First, confirm the information that it is exist.

if(strcmp(my\_contact[i].name,name)==0){ //Second, Compare the name using strcmp

my\_contact[i].number = NULL;

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

break;

}

else

continue;

}

else{

if(i==199){ //Not exist

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

break;

}

}

}

}

//Find Section

int find\_record(){

int i;

char name[20];

printf(" \n Enter the Find Name : ");

gets(name);

fflush(stdin);

for(i=0; i<200; i++){

if(my\_contact[i].number != NULL){ //First, confirm the information that it is exist.

if(strcmp(my\_contact[i].name,name)==0){ //Second, Compare the name using strcmp

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

printf(" NAME : %s \n",my\_contact[i].name); //Display the information

printf(" Phone Number : %d \n",my\_contact[i].number);

printf(" Address : %s \n\n",my\_contact[i].address);

break;

}

else

continue;

}

else{

if(i==199){

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

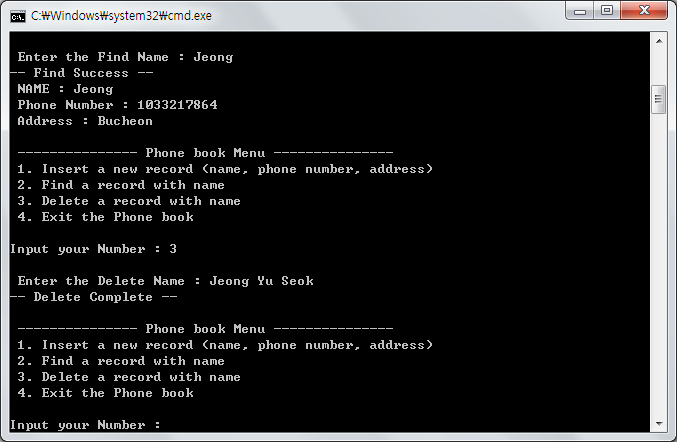
break;

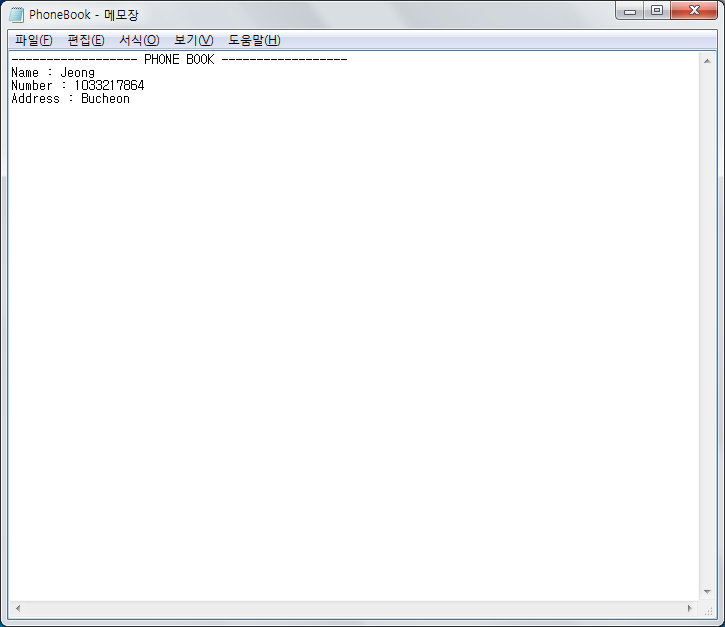
}

}

}

}

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