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| **Phonebook manager** The phonebook manager can save name, phone number, email address, address.  It can delete these records as well  Project Completed by  Kaviya  **CODE**  #include <stdio.h> |
|  | #include <conio.h> |
|  | #include <stdlib.h> |
|  | #include <windows.h> |
|  | #include <string.h> |
|  | #include <unistd.h> |
|  | #include <errno.h> |
|  |  |
|  | // Typedef for person datatype. |
|  | typedef struct per{ |
|  | char name[100]; |
|  | long int phone\_no; |
|  | char email[100]; |
|  | char address[100]; |
|  | } person; |
|  |  |
|  | void insertRecord(){ |
|  | // Function to insert a new contact. |
|  | system("cls"); |
|  | person temp; |
|  | char name[100], email[100], address[100]; |
|  | long int phone\_no; |
|  |  |
|  | printf("Enter name: "); |
|  | gets(temp.name); |
|  | printf("Enter phone number: "); |
|  | scanf("%ld", &temp.phone\_no); |
|  | fflush(stdin); |
|  | printf("Enter email: "); |
|  | gets(temp.email); |
|  | printf("Enter address: "); |
|  | gets(temp.address); |
|  |  |
|  | FILE \*f; |
|  | f = fopen("record", "ab+"); |
|  | if(!f){ |
|  | printf("Failed to open file!"); |
|  | sleep(3); |
|  | return; |
|  | } |
|  | fwrite(&temp, sizeof(person), 1, f); // inserting the struct to the binary file |
|  | fflush(stdin); |
|  | printf("Record saved!\n"); |
|  |  |
|  | fclose(f); |
|  |  |
|  | printf("Enter any key to continue..."); |
|  |  |
|  | \_getch(); |
|  | } |
|  | void deleteRecord(){ |
|  | // Function to delete a contact |
|  | system("cls"); |
|  | person temp; |
|  | FILE \*f; |
|  | f = fopen("record", "rb"); |
|  | if(!f){ |
|  | printf("Failed to open records!"); |
|  | sleep(3); |
|  | return; |
|  | } |
|  | FILE \*f2; |
|  | f2 = fopen("temp", "wb+"); |
|  | if(!f2){ |
|  | printf("File error..."); |
|  | sleep(3); |
|  | return; |
|  | } |
|  | char name[100]; |
|  | int flag = 0; |
|  |  |
|  | printf("Enter the name of the contact to remove: "); |
|  | scanf("%s", &name); |
|  |  |
|  | fflush(stdin); |
|  | while(fread(&temp, sizeof(person), 1, f) == 1){ // loop to search for contact |
|  | if(strcmp(temp.name, name) != 0) |
|  | fwrite(&temp, sizeof(person), 1, f2); |
|  | if(strcmp(temp.name, name) == 0){ |
|  | flag = 1; |
|  | } |
|  | } |
|  | fclose(f2); |
|  | fclose(f); |
|  | if(flag){ |
|  | if(remove("record") == -1) |
|  | printf("%d\n", errno); |
|  | if(rename("temp", "record") == -1) |
|  | printf("%s\n", strerror(errno)); |
|  | printf("Record deleted successfully.\n"); |
|  | } |
|  | else{ |
|  | remove("temp"); |
|  | printf("Record not found.\n"); |
|  | } |
|  | printf("Enter any key to continue..."); |
|  | \_getch(); |
|  | } |
|  | void modifyRecord(){ |
|  | // Function to modify a record. |
|  | FILE \*f; |
|  | f = fopen("record", "rb+"); |
|  | if(!f){ |
|  | printf("Failed to open records."); |
|  | sleep(3); |
|  | return; |
|  | } |
|  | person temp1, temp2; |
|  | char name[100]; |
|  | int flag = 0; |
|  | system("cls"); |
|  |  |
|  | printf("Enter the name of the contact to modify: "); |
|  | scanf("%s", &name); |
|  | while (fread(&temp1, sizeof(person), 1, f) == 1){ // loop to find and enter new details for the contact. |
|  | if(strcmp(temp1.name, name) == 0){ |
|  | printf("Enter name: "); |
|  | gets(temp2.name); |
|  | printf("Enter phone number: "); |
|  | scanf("%ld", &temp2.phone\_no); |
|  | printf("Enter email: "); |
|  | gets(temp2.email); |
|  | printf("Enter address: "); |
|  | gets(temp2.address); |
|  | fseek(f, -sizeof(person), SEEK\_CUR); |
|  | fwrite(&temp2, sizeof(person), 1, f); |
|  | flag = 1; |
|  | break; |
|  | } |
|  | fflush(stdin); |
|  | } |
|  | if(flag) |
|  | printf("Data modified successfully.\n"); |
|  | else |
|  | printf("Data not found.\n"); |
|  | fclose(f); |
|  |  |
|  | printf("Enter any key to continue..."); |
|  | \_getch(); |
|  | } |
|  | void findRecord(){ |
|  | // Function to find and display a record. |
|  | person temp; |
|  | char name[100]; |
|  | FILE \*f = fopen("record", "rb"); |
|  | if(!f){ |
|  | printf("Failed to open records."); |
|  | sleep(3); |
|  | return; |
|  | } |
|  | printf("Enter the name of the contact to search: "); |
|  | scanf("%s", &name); |
|  | int flag = 0; |
|  | while(fread(&temp, sizeof(person), 1, f) == 1){ |
|  | if(strcmp(temp.name, name) == 0){ |
|  | printf("Information of %s:\n", name); |
|  | printf("Name: %s\n", name); |
|  | printf("Phone number: %ld\n", temp.phone\_no); |
|  | printf("Email: %s\n", temp.email); |
|  | printf("Address: %s\n", temp.address); |
|  | flag = 1; |
|  | } |
|  | } |
|  | if(!flag) |
|  | printf("Record not found."); |
|  | printf("Enter any key to continue..."); |
|  | fclose(f); |
|  | \_getch(); |
|  | } |
|  | int main(){ |
|  | system("color 0a"); |
|  | while(1){ |
|  | system("cls"); |
|  |  |
|  | fflush(stdin); |
|  | char x; |
|  | printf("Enter [1] to insert new contact, [2] to modify contact, [3] to delete contact, [4] to find record, [5] to exit."); |
|  | x = \_getch(); |
|  | system("cls"); |
|  |  |
|  | switch (x) |
|  | { |
|  | case '1': |
|  | insertRecord(); |
|  | break; |
|  | case '2': |
|  | modifyRecord(); |
|  | break; |
|  | case '3': |
|  | deleteRecord(); |
|  | break; |
|  | case '4': |
|  | findRecord(); |
|  | break; |
|  | case '5': |
|  | printf("Adios..."); |
|  | return 0; |
|  | default: |
|  | printf("Invalid choice."); |
|  | break; |
|  | } |
|  | } |
|  | } |