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Batch-22

Sub- **ESFP Project**

Code:-

```cpp
# include <iostream>
#include <conio.h>
#include <fstream>

using namespace std;

class contact{
private:
    char fName[50], lName[50], address[50], email[50];
    long long phNo;

public:
    void createContact() {
        cout<<"Enter your first name: ";
```

```cpp
            cin>>fName;
            cout<<"Enter your last name: ";
            cin>>lName;
            cout<<"Enter phone: ";
            cin>>phNo;
            cout<<"Enter address: ";
            cin>>address;
            cout<<"Enter email: ";
            cin>>email;
        }

        void showContact() {
            cout<<"Name: "<<fName<<"
"<<lName<<endl;
            cout<<"Phone: "<<phNo<<endl;
            cout<<"Address: "<<address<<endl;
            cout<<"Email: "<<email<<endl;
        }

        void writeOnFile() {
            char ch;
            ofstream f1;
            f1.open("CMS.dat",ios::binary|ios::app);
```

```cpp
        do {
            createContact();

f1.write(reinterpret_cast<char*>(this),sizeof(*this));
            cout<<"Do you have next data?(y/n)";
            cin>>ch;
        }while(ch=='y');

        cout<<"Contact has been Sucessfully
Created...";
        f1.close();
    }

    void readFromFile() {
        ifstream f2;
        f2.open("CMS.dat",ios::binary);


cout<<"\n=================================\
n";
        cout<<"LIST OF CONTACTS";

cout<<"\n=================================\
n";
```

```cpp
            while(!f2.eof()) {

if(f2.read(reinterpret_cast<char*>(this),sizeof(*this)))
                {
                        showContact();

cout<<"\n=================================\n";
                }
        }
        f2.close();
    }

    void searchOnFile() {
        ifstream f3;
        long long phone;
        cout<<"Enter phone no.: ";
        cin>>phone;
        f3.open("CMS.dat",ios::binary);

        while(!f3.eof()) {
            if(f3.read(reinterpret_cast<char*>(this),
sizeof(*this))) {
```

```cpp
                if (phone==phNo) {
                    showContact();
                    return;
                }
            }
        }
        cout<<"\n\n No record not found";
        f3.close();
}

void deleteFromFile() {
        long long num;
        int flag = 0;
        ofstream f4;
        ifstream f5;

        f5.open("CMS.dat",ios::binary);
        f4.open("temp.dat",ios::binary);

        cout<<"Enter phone no. to delete: ";
        cin>>num;

        while(!f5.eof()) {
```

```cpp
if(f5.read(reinterpret_cast<char*>(this),sizeof(*this)))
{
                if(phNo!=num) {

f4.write(reinterpret_cast<char*>(this),sizeof(*this));
                }
                else
                        flag = 1;
            }
        }
        f5.close();
        f4.close();
        remove("CMS.dat");
        rename("temp.dat","CMS.dat");

        flag==1?
        cout<<endl<<endl<<"\tContact Deleted...":
        cout<<endl<<endl<<"\tContact Not
Found...";
    }

    void editContact() {
        long long num;
```

```cpp
        fstream f6;

        cout<<"Edit contact";

cout<<"\n===============================\n
\n";
        cout<<"Enter the phone number to be edit: ";
        cin>>num;



f6.open("CMS.dat",ios::binary|ios::out|ios::in);

        while(!f6.eof()) {

if(f6.read(reinterpret_cast<char*>(this),sizeof(*this)))
{
                if (ph No==num) {
                        cout<<"Enter new record\n";
                        createContact();
                        int pos=-1*sizeof(*this);
                        f6.seekp(pos,ios::cur);

f6.write(reinterpret_cast<char*>(this),sizeof(*this));
```

```cpp
                    cout<<endl<<endl<<"\t Contact
Successfully Updated...";
                    return;
                }
            }
        }
        cout<<"\n\n No record not found";
        f6.close();
    }
};

int main() {
    system("cls");
    system("Color 3F"); // "Color XY", X -
backgroung color, Y - text color

    cout<<"\n\n\n\n\n\n\n\n\t\t\t * WELCOME TO
CONTACT MANAGEMENT SYSTEM *";
    getch();

    while(1) {
        contact c1;
        int choice;
```

```cpp
        system("cls");
        system("Color 03");

        cout<<"\nCONTACT MANAGEMENT
SYSTEM";
    cout<<"\n\nMAIN MENU";
        cout<<"\n=====================\n";
    cout<<"[1] Add a new Contact\n";
    cout<<"[2] List all Contacts\n";
    cout<<"[3] Search for contact\n";
    cout<<"[4] Delete a Contact\n";
    cout<<"[5] Edit a Contact\n";
    cout<<"[0] Exit";
        cout<<"\n=====================\n";
    cout<<"Enter your choice: ";
    cin>>choice;

    switch(choice) {
        case 1:
            system("cls");
            c1.writeOnFile();
            break;

        case 2:
```

```cpp
            system("cls");
        c1.readFromFile();
        break;

        case 3:
        system("cls");
        c1.searchOnFile();
        break;

    case 4:
            system("cls");
        c1.deleteFromFile();
        break;

    case 5:
            system("cls");
        c1.editContact();
        break;

    case 0:
        system("cls");
        cout<<"\n\n\n\t\t\tThank you for using
CMS."<<endl<<endl;
        exit(0);
```

```cpp
				break;

			default:
				continue;
		}

		int opt;
		cout<<"\n\n..::Enter the Choice:\n[1] Main Menu\t\t[0] Exit\n";
		cin>>opt;

		switch (opt) {
			case 0:
			system("cls");
			cout<<"\n\n\n\t\t\tThank you for using CMS."<<endl<<endl;
			exit(0);
			break;

			default:
				continue;
		}
	}
```

```
        return 0;
}
```

OUTPUT-

```
C:\Users\TanishQ\OneDrive\Documents\Conctact Manage

CONTACT MANAGEMENT SYSTEM

MAIN MENU
=====================
[1] Add a new Contact
[2] List all Contacts
[3] Search for contact
[4] Delete a Contact
[5] Edit a Contact
[0] Exit
=====================
Enter your choice: 2_
```

```
C:\Users\TanishQ\OneDrive\Documents\Conctact Management System.exe
================================
Name: man solanki
Phone: 111
Address: address
Email: gmail.com


================================
Name: Manan Sol
Phone: 222
Address: ADD
Email: .gmail.com


================================
Name: Man Solanki
Phone: 111
Address: xyz
Email: mail.com


================================
Name: MAN SOLANKI
Phone: 222
Address: gmail.com
Email: gmail.com


================================


..::Enter the Choice:
[1] Main Menu            [0] Exit
```

3)

```
Enter phone no.: 111
Name: man solanki
Phone: 111
Address: address
Email: gmail.com


..::Enter the Choice:
[1] Main Menu            [0] Exit
```

4)

```
Enter phone no. to delete: 222


        Contact Deleted...

..::Enter the Choice:
[1] Main Menu            [0] Exit
```

```
C:\Users\TanishQ\OneDrive\Documents\Conctact Management System.exe

Edit contact
===============================

Enter the phone number to be edit: 111
Enter new record
Enter your first name: Man
Enter your last name: Solanki
Enter phone: 111
Enter address: address
Enter email: mail.com


        Contact Successfully Updated...

..::Enter the Choice:
[1] Main Menu              [0] Exit
```

5)