
Roll Number: SYCOC303 Division: C

PRN Number: 122B2B303 Batch: C4

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Problem Statement:

⇒ Write a program to maintain an employee database in binary file with employee information such as empId, name, age, department, post and salary. Write function for adding new record, displaying all records, searching for a particular employee, updating employee salary and post.

INPUT:

```
{
                     cout<<"\n=======";
                     cout<<"\nEnter the following details of an Employee==>"<<endl;</pre>
                     cout<<"ID:";</pre>
                     cin>>this->id;
                     cout<<"\nNAME:";</pre>
                     cin>>this->name;
                     cout<<"\nAGE:";</pre>
                     cin>>this->age;
                     cout<<"\nDEPARTMENT:";</pre>
                     cin>>this->department;
                     cout<<"\nPOST:";</pre>
                     cin>>this->post;
                     cout<<"\nSALARY:";</pre>
                     cin>>this->salary;
                     cout<<"\n=======";
              void displayData()
                     cout<<"\n=======";
                     cout<<"\nEmployee Details are:"<<endl;</pre>
                     cout<<"ID:"<<this->id<<endl;</pre>
                     cout<<"NAME:"<<this->name<<endl;</pre>
                     cout<<"AGE:"<<this->age<<endl;</pre>
                     cout<<"DEPARTMENT:"<<this->department<<endl;</pre>
                     cout<<"POST:"<<this->post<<endl;</pre>
                     cout<<"SALARY:Rs."<<this->salary<<endl;</pre>
                     cout<<"\n========;
              }
};
int main()
{
       int ch,doch;
       int serID,isfound=0;
       int upID,pos,flag;
       int delID;
```

```
EmployeeDB emp1,emp2,emp;
         fstream file;
         cout<<"\n======WELCOME======";
         do
         {
cout<<"\n1.Adding record into DB(Writing into file).\n2.Displaying the
records from DB(Reading from file).\n3.Searching particular record into DB(Searching
into file).\n4.Updating record in DB(Updating content from the file).\n5.Deleting
record from DB(Deleting content from file).\n6.EXIT";</pre>
                  cout<<"\nEnter your choice:";</pre>
                  cin>>ch;
                  switch(ch)
                   {
                            case 1:
                                     emp1.getData();
                                     file.open("employee1.txt",ios::out|ios::app|ios::binary);
                                     file.write((char *)&emp1,sizeof(EmployeeDB));
                                     file.close();
                                     break;
                            case 2:
                                     file.open("employee1.txt",ios::in|ios::binary);
                                     if(file.eof())
                                              cout<<"\nFile is empty";</pre>
                                     else
                                     {
                                              while((file.read((char
*)&emp,sizeof(EmployeeDB)))!=NULL)
                                              {
                                                        emp.displayData();
                                              }
                                     file.close();
                                     break;
                            case 3:
                                     cout<<"\nEnter the employee ID you want to search for:";</pre>
                                     cin>>serID;
```

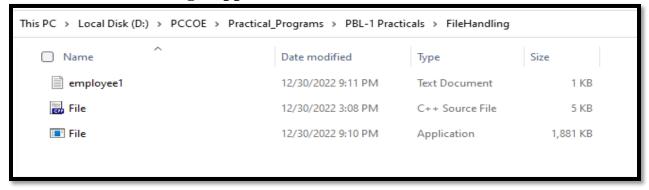
```
file.open("employee1.txt",ios::in);
      while((file.read((char *)&emp2,sizeof(EmployeeDB)))!=NULL)
       {
              if(serID==emp2.id)
              {
                     isfound=1;
                     break;
              }
              else
              {
                     isfound=0;
              }
       }
       if(isfound==1)
       {
              cout<<"\nEmployee FOUND==>";
              emp2.displayData();
       }
       else
       {
              cout<<"\nEmployee NOT FOUND!!";</pre>
      file.close();
       break;
case 4:
       cout<<"\nEnter ID of employee you want to UPDATE:";</pre>
       cin>>upID;
       file.open("employee1.txt",ios::in|ios::binary);
       if(file.eof())
              cout<<"\nFile is empty";</pre>
       else
       {
              EmployeeDB e;
              ofstream fout("newemployee.txt");
              while(file.read((char*)&e,sizeof(EmployeeDB)))
              {
```

```
if(e.id==upID)
                                          {
                                                 cout<<"\nEnter new details:";</pre>
                                                 e.getData();
                                                 flag=1;
                                          }
                                          fout.write((char*)&e, sizeof(EmployeeDB));
                                   }
                                   fout.close();
                                   file.close();
                                   remove("employee1.txt");
                                   rename("newemployee.txt","employee1.txt");
                                   if(flag)
                                          cout<<"\nRecord is Updated
Successfully!"<<endl;</pre>
                                   else
                                          cout<<"\nRecord Not Found.."<<endl;</pre>
                            }
                            break;
                     case 5:
                            cout<<"\nEnter ID of an employee to delete:";</pre>
                            cin>>delID;
                            file.open("employee1.txt",ios::in|ios::binary);
                            if(file.eof())
                                   cout<<"File is empty";</pre>
                            else
                            {
                                   EmployeeDB e;
                                   ofstream fout("newemployee.txt");
                                   while(file.read((char*)&e,sizeof(EmployeeDB)))
                                   {
                                          if(e.id!=delID)
       fout.write((char*)&e,sizeof(EmployeeDB));
                                   }
                                   fout.close();
```

```
file.close();
                                    remove("employee1.txt");
                                    rename("newemployee.txt","employee1.txt");
                                    cout<<"\nRecord has been deleted
successfully!"<<endl;</pre>
                            }
                            file.close();
                            break;
                     case 6:
                            goto exit;
                            break;
                     default:
                            cout<<"\nPlease enter correct choice!";</pre>
                            break;
              cout<<"\nDo you want to continue?[1 for YES || 0 for NO]-->";
              cin>>doch;
       }while(doch==1);
       exit:
       cout<<"\n=====THANK YOU!======";</pre>
       return 0;
}
```

OUTPUT:

After starting execution of the program it will create a file employee1.txt as shown in the following snippet:



Adding Records into the file:

```
=====WELCOME=====

    Adding record into DB(Writing into file).

Displaying the records from DB(Reading from file).

    Searching particular record into DB(Searching into file).

    Updating record in DB(Updating content from the file).

Deleting record from DB(Deleting content from file).
6.EXIT
Enter your choice:1
-----
Enter the following details of an Employee==>
ID:101
NAME: ABC
AGE:20
DEPARTMENT:Computer
POST:HOD
SALARY: 150000
_____
Do you want to continue?[1 for YES || 0 for NO]-->1
```

```
    Adding record into DB(Writing into file).

Displaying the records from DB(Reading from file).
Searching particular record into DB(Searching into file).

    Updating record in DB(Updating content from the file).

Deleting record from DB(Deleting content from file).
6.EXIT
Enter your choice:1
 ______
Enter the following details of an Employee==>
ID:102
NAME: PQR
AGE:26
DEPARTMENT:Admin
POST:Director
SALARY: 200000
Do you want to continue?[1 for YES || 0 for NO]-->1
```

Reading the contents from the file:

```
    Adding record into DB(Writing into file).

Displaying the records from DB(Reading from file).
Searching particular record into DB(Searching into file).

    Updating record in DB(Updating content from the file).

Deleting record from DB(Deleting content from file).
Enter your choice:2
Employee Details are:
ID:101
NAME: ABC
AGE:20
DEPARTMENT: Computer
POST:HOD
SALARY:Rs.150000
------
Employee Details are:
ID:102
NAME: PQR
AGE:26
DEPARTMENT:Admin
POST:Director
SALARY:Rs.200000
______
Do you want to continue?[1 for YES || 0 for NO]-->
```

Searching into file:

```
    Adding record into DB(Writing into file).

Displaying the records from DB(Reading from file).

    Searching particular record into DB(Searching into file).

4.Updating record in DB(Updating content from the file).
Deleting record from DB(Deleting content from file).
6.EXIT
Enter your choice:3
Enter the employee ID you want to search for: 101
Employee FOUND==>
Employee Details are:
ID:101
NAME: ABC
AGE:20
DEPARTMENT:Computer
POST:HOD
SALARY: Rs. 150000
Do you want to continue?[1 for YES || 0 for NO]-->
```

Updating records in the file:

```
Enter ID of employee you want to UPDATE:101
Enter new details:
Enter the following details of an Employee==>
NAME: ABC
AGE:22
DEPARTMENT:Computer
POST:Administor
SALARY: 175000
Record is Updated Successfully!
Do you want to continue?[1 for YES || 0 for NO]-->1

    Adding record into DB(Writing into file).

Displaying the records from DB(Reading from file).
Searching particular record into DB(Searching into file).

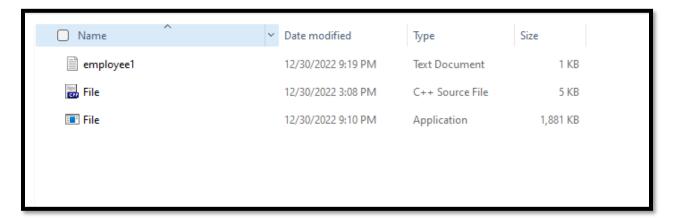
    Updating record in DB(Updating content from the file).
    Deleting record from DB(Deleting content from file).

6.EXIT
Enter your choice:2
-----
Employee Details are:
ID:101
NAME: ABC
AGE:22
DEPARTMENT:Computer
POST:Administor
SALARY:Rs.175000
 _____
```

Deleting record from the file:

```
1.Adding record into DB(Writing into file).
2.Displaying the records from DB(Reading from file).
3.Searching particular record into DB(Searching into file).
4.Updating record in DB(Updating content from the file).
5.Deleting record from DB(Deleting content from file).
6.EXIT
Enter your choice:5
Enter ID of an employee to delete:102
Record has been deleted successfully!
```

Folder Structure:



Contents in the file: