

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<fstream.h>
#include<iostream.h>
#include<stdlib.h>
class record
{
public:
char name[20];
char usn[20];
}rec[20];
fstream file[8];
int no;
char fname[8]
[8]={"1.txt","2.txt","3.txt","4.txt","5.txt","6.txt","7
.txt","8.txt"};
void merge_file(char* file1,char* file2,char*
filename)
{
record recd[20];
int i,k;
k=0;
fstream f1,f2;
f1.open(file1,ios::in);
f2.open(file2,ios::in);
while(!f1.eof())
{
f1.getline(recd[k].name,20,'|');
f1.getline(recd[k++].usn,20,'\n');
}
while(!f2.eof())
{
f2.getline(recd[k].name,20,'|');
f2.getline(recd[k++].usn,20,'\n');
}
int t,y;
record temp;
for(t=0;t<k-2;t++)
for(y=0;y<k-t-2;y++)
if(strcmp(recd[y].name,recd[y+1].name)>0)
{
temp=recd[y];
recd[y]=recd[y+1];
recd[y+1]=temp;
}
fstream temp1;
temp1.open(file1,ios::out);
for(t=1;t<k-1;t++)
temp1<<recd[t].name<<"|"<<recd[t].usn<<"\n";
f1.close();
f2.close();
temp1.close();
return;
}
void kwaymerge()
{
int i,k;
k=0;
char filename[7]
[20]={"11.txt","22.txt","33.txt","44.txt","111.txt",
"222.txt","1111.txt"};
for(i=0;i<8;i+=2)
{
merge_file(fname[i],fname[i+1],filename[k++]);
}
k=4;
for(i=0;i<4;i+=2)
{
merge_file(filename[i],filename[i+1],filename[k+
+]);
}
merge_file(filename[4],filename[5],filename[6]);
return;
}
int main()
{
int i;
clrscr();
cout<<"enter no of records\n";
cin>>no;
cout<<"\nEnter the details\n";
for(i=0;i<8;i++)
file[i].open(fname[i],ios::out);
for(i=0;i<no;i++)
{
cout<<"Name:";
cin>>rec[i].name;
cout<<"Usn:";
cin>>rec[i].usn;
file[i%8]<<rec[i].name<<"|"<<rec[i].usn<<"\n";
}
for(i=0;i<8;i++)
file[i].close();
kwaymerge();
fstream result;
result.open("1111.txt",ios::in);
cout<<"sorted records\n";
char name[20],usn[20];
for(i=0;i<no;i++)
{
result.getline(name,20,'|');
result.getline(usn,20,'\n');
cout<<"\nName:"<<name<<"\nUsn:"<<usn<<"\n";
}
getch();
return 0;
}
```

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```
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<conio.h>
#include<fstream.h>
#include<iostream.h>
void writeLists()
{
fstream out1,out2;
int i,m,n;
char name[20];
out1.open("file1.txt",ios::out);
out2.open("file2.txt",ios::out);
if(!out1||!out2)
{
cout<<"Unable to open one of the list
files\n";
getch();
exit(0);
}
cout<<"Enter the number of names you
want to enter in file1 ";
cin>>m;
cout<<"\nEnter the names in assending
order\n";
for(i=0;i<m;i++)
{
cin>>name;
out1<<name;
out1<<"\n";
}
cout<<"Enter the number of names you
want to enter in file2 ";
cin>>n;
cout<<"\nEnter the names in assending
order\n";
for(i=0;i<n;i++)
{
cin>>name;
out2<<name;
out2<<"\n";
}
out1.close();
out2.close();
}
void main()
{
char list1[100][20],list2[100][20];
int i,j,m,n;
clrscr();
fstream out1,out2,out3;
writeLists();
out1.open("file1.txt",ios::in);
out2.open("file2.txt",ios::in);
out3.open("file3.txt",ios::out);
if(!out3||!out1||!out2)
{
cout<<"Unable to open one of the file";
getch();
exit(0);
}
clrscr();
m=0;
n=0;
while(!out1.eof())
{
out1.getline(list1[m],20,'\n');
cout<<list1[m]<<"\t";
m++;
}
cout<<endl;
while(!out2.eof())
{
out2.getline(list2[n],20,'\n');
cout<<list2[n]<<"\t";
n++;
}
cout<<"\nElements common to both files
are\n";
while(i<m&&j<n)
{
if(strcmp(list1[i],list2[j])==0)
{
out3<<list1[i];
cout<<list1[i]<<"\n";
out3<<"\n";
i++;
j++;
}
else if(strcmp(list1[i],list2[j])<0)
i++;
else
j++;
}
getch();
}
```

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```
#include<iostream.h>
#include<string.h>
#include<fstream.h>
#include<stdlib.h>
#include<conio.h>
int n=0,index=0;
class student
{
public: char name[20],usn[20],branch[5];
int sem;
void insert(fstream &f1,fstream &f2)
{
cout<<"Enter Name: ";
cin>>name;
cout<<"Enter USN: ";
cin>>usn;
cout<<"Enter Sem: ";
cin>>sem;
cout<<"Enter Branch: ";
cin>>branch;
write(f1,f2);
}
void write(fstream &f1,fstream &f2)
{
f1<<"+index<<"\t"<<name<<"\n";
f2<<name<<"\t"<<usn<<"\t"<<sem<<"\t"<<branch<<"\n";
}
void display(fstream &f2)
{
f2>>name>>usn>>sem>>branch;
cout<<name<<"\t"<<usn<<"\t"<<sem<<"\t"<<branch<<"\n";
}
int search(fstream &f1,char key[20])
{
int i,x;
for(i=1;i<=n;i++)
{
f1>>x>>name;
if(strcmp(name,key)==0)
return i;
}
cout<<"Record not found\n";
return 0;
}
int remove(fstream &f1,char key[20])
{
int i;
i=search(f1,key);
return i;
}
};
void main()
{
fstream f1,f2;
student s[20],p;
int ch,k=0,i;
clrscr();
f1.open("m.txt",ios::trunc);
f2.open("mn.txt",ios::trunc);
f1.close();
f2.close();
for(;;)
{
cout<<"1.Insert 2.Display 3.Search 4.Delete 5.Exit\n";
cout<<"Enter choice: ";
cin>>ch;
switch(ch)
{
case 1: f1.open("m.txt",ios::app);
f2.open("mn.txt",ios::app);
cout<<"Enter no. of students: ";
cin>>k;
n=n+k;
for(int i=1;i<=k;i++)
s[i].insert(f1,f2);
f1.close();
f2.close();
break;
case 2: f2.open("mn.txt",ios::in);
for(i=1;i<=n;i++)
s[i].display(f2);
f2.close();
break;
case 3: char name[20];
cout<<"Enter name to search: ";
cin>>name;
f1.open("m.txt",ios::in);
f2.open("mn.txt",ios::in);
int j=p.search(f1,name);
if(j!=0)
{
cout<<"Record found & Details are\n";
cout<<"Name="<<s[j].name<<"\n"<<"USN="<<s[j].usn<<"\n"
<<"Sem="<<s[j].sem<<"\n"<<"Branch="<<s[j].branch<<"\n";
}
f1.close();
f2.close();
break;
case 4: f1.open("m.txt",ios::in);
f2.open("mn.txt",ios::in);
cout<<"Enter name to delete: ";
cin>>name;
j=p.remove(f1,name);
if(j!=0)
{
for(i=j;i<=n;i++)
s[i]=s[i+1];
cout<<"Deletion successful\n";
}
n--;
index--;
f1.close();
f2.close();
break;
f1.open("m.txt",ios::trunc);
f2.open("mn.txt",ios::trunc);
index=0;
for(i=1;i<=n;i++)
s[i].write(f1,f2);
f1.close();
f2.close();
break;
default:exit(0);
}
}
}
```

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```
#include<iostream.h>
#include<string.h>
#include<fstream.h>
#include<stdlib.h>
#include<conio.h>
int n=0,index=0;
class student
{
public: char name[20],usn[20],branch[5];
int sem;
void insert(fstream &f1,fstream &f2)
{
cout<<"Enter Name: ";
cin>>name;
cout<<"Enter USN: ";
cin>>usn;
cout<<"Enter Sem: ";
cin>>sem;
cout<<"Enter Branch: ";
cin>>branch;
write(f1,f2);
}
void write(fstream &f1,fstream &f2)
{
f1<<"+index<<"\t"<<usn<<"\n";
f2<<name<<"\t"<<usn<<"\t"<<sem<<"\t"<<branch<<"\n";
}
void display(fstream &f2)
{
f2>>name>>usn>>sem>>branch;
cout<<name<<"\t"<<usn<<"\t"<<sem<<"\t"<<branch<<"\n";
}
int search(fstream &f1,char key[20])
{
int i,x;
for(i=1;i<=n;i++)
{
f1>>x>>usn;
if(strcmp(usn,key)==0)
return i;
}
cout<<"Record not found\n";
return 0;
}
int remove(fstream &f1,char key[20])
{
int i;
i=search(f1,key);
return i;
}
};
void main()
{
fstream f1,f2;
student s[20],p;
int ch,k=0,i;
clrscr();
f1.open("m1.txt",ios::trunc);
f2.open("mn1.txt",ios::trunc);
f1.close();
f2.close();
for(;;)
{
cout<<"1.Insert 2.Display 3.Search 4.Delete 5.Exit\n";
cout<<"Enter choice: ";
cin>>ch;
switch(ch)
{
case 1: f1.open("m1.txt",ios::app);
f2.open("mn1.txt",ios::app);
cout<<"Enter no. of students: ";
cin>>k;
n=n+k;
for(int i=1;i<=k;i++)
s[i].insert(f1,f2);
f1.close();
f2.close();
break;
case 2: f2.open("mn1.txt",ios::in);
for(i=1;i<=n;i++)
s[i].display(f2);
f2.close();
break;
case 3: char usn[20];
cout<<"Enter USN to search: ";
cin>>usn;
f1.open("m1.txt",ios::in);
f2.open("mn1.txt",ios::in);
int j=p.search(f1,usn);
if(j!=0)
{
cout<<"Record found & Details are\n";
cout<<"Name="<<s[j].name<<"\n"<<"USN="<<s[j].usn<<"\n"
<<"Sem="<<s[j].sem<<"\n"<<"Branch="<<s[j].branch<<"\n";
}
f1.close();
f2.close();
break;
case 4: f1.open("m1.txt",ios::in);
f2.open("mn1.txt",ios::in);
cout<<"Enter USN to delete: ";
cin>>usn;
j=p.remove(f1,usn);
if(j!=0)
{
for(i=j;i<=n;i++)
s[i]=s[i+1];
cout<<"Deletion successful\n";
}
n--;
index--;
f1.close();
f2.close();
break;
f1.open("m1.txt",ios::trunc);
f2.open("mn1.txt",ios::trunc);
index=0;
for(i=1;i<=n;i++)
s[i].write(f1,f2);
f1.close();
f2.close();
break;
default:exit(0);
}
}
}
```

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