

PROBLEM STATEMENT:

Write a program that creates 'n' objects of class 'directory' which has fields like *name*, *phone no.*, and *address*. Write the objects onto a file "*object.txt*". Open the file and check if each object is valid or not. A valid entry means that the *name* and *phone no.* should be a string and a numeric string respectively. The valid objects alone are to be written onto another file "*newobject.txt*". Also provide options for appending objects to the existing file, after their validity check.

PROGRAM CODE:

```
#include<iostream>
#include<fstream>
#include<conio.h>
#include<cstring>
using namespace std;
class directory
{
    private:
        char* name;
        char* phone;
        char* addr;
    public:
        directory()
        {
            name=new char[50];
            phone=new char[20];
            addr=new char[100];
        }
        void getdata()
        {
            cout<<"enter name: ";
            cin.getline(name,50,'\n');
            cout<<"enter phone: ";
            cin.getline(phone,20,'\n');
            cout<<"enter address: ";
            cin.getline(addr,100,'\n');
        }
        void putdata()
        {
            cout<<"\nname: "<<name<<'\n';
```

```
        cout<<"phone: "<<phone<<'\n';
        cout<<"address: "<<addrs<<'\n';
    }
    int validity()
    {
        int flagn=0,flagp=0;
        for(int i=0;i<strlen(name);i++)
        {
            if(((*(name+i)<='z')&&(*(name+i)>='a'))||((*(name+i)<='Z')&&(*(name+i)
            >='A'))||(*(name+i)==' '))
                flagn=0;
            else
            {
                flagn=1;
                break;
            }
        }
        for(int i=0;i<strlen(phone);i++)
        {
            if(*(phone+i)<='9')&&(*(phone+i)>='0'))
                flagp=0;
            else
            {
                flagp=1;
                break;
            }
        }
        if(flagp==0&&flagn==0)
            return 1;
        else
            return 0;
    }
};

int main()
{
    int n,i;
    directory* obj;
    ifstream infile;
    ofstream outfile;
    cout<<"enter the number of entries (n): ";
```

```
cin>>n;
cin.ignore(50, '\n');
outfile.open("object.txt");
for(i=0;i<n;i++)
{
    obj=new directory;
    cout<<"\nentry "<<i+1<<":\n";
    obj->getdata();
    outfile.write((char*)obj,sizeof(directory));
    delete obj;
}
outfile.close();
int vald,no=0;
infile.open("object.txt");
outfile.open("newobject.txt");
for(i=0;i<n;i++)
{
    obj=new directory;
    infile.read((char*)obj,sizeof(directory));
    vald=obj->validity();
    if(vald==1)
    {
        outfile.write((char*)obj,sizeof(directory));
        no++;
    }
    delete obj;
}
infile.close();
outfile.close();
cout<<"\n**** valid entries are: ****\n";
infile.open("newobject.txt");
for(i=0;i<no;i++)
{
    obj=new directory;
    infile.read((char*)obj,sizeof(directory));
    obj->putdata();
    delete obj;
}
infile.close();
char ch;
outfile.open("newobject.txt",ios::app);
cout<<"\ndo you wish to append (y/n): ";
```

```
cin>>ch;
cin.ignore(50, '\n');
while(ch=='y')
{
    obj=new directory;
    obj->getdata();
    vald=obj->validity();
    if(vald==1)
    {
        outfile.write((char*)obj,sizeof(directory));
        no++;
    }
    delete obj;
    cout<<"\ndo you wish to append (y/n): ";
    cin>>ch;
    cin.ignore(50, '\n');
}
outfile.close();
cout<<"\n**** final entries are: ****\n";
infile.open("newobject.txt");
for(i=0;i<no;i++)
{
    obj=new directory;
    infile.read((char*)obj,sizeof(directory));
    obj->putdata();
    delete obj;
}
getch();
return 0;
}
```

COMPUTER SOFTWARE LAB

Practical Examination

Name: SAMBHAV R JAIN

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OUTPUT:

enter the number of entries (n): 3

entry 1:

enter name: Sambhav R Jain

enter phone: 23456

enter address: NIT Trichy

entry 2:

enter name: Disprop456

enter phone: 122122

enter address: Alamni St

entry 3:

enter name: Happy

enter phone: 2345TY43

enter address: Jukkli Per

**** valid entries are: ****

name: Sambhav R Jain

phone: 23456

address: NIT Trichy

do you wish to append (y/n): y

enter name: Assimov

enter phone: 12234

enter address: Wertr

do you wish to append (y/n): y

enter name: Raol 990

enter phone: 34344

enter address: Poolar

do you wish to append (y/n): n

**** final entries are: ****

name: Sambhav R Jain

phone: 23456

address: NIT Trichy

name: Assimov

phone: 12234

address: Wertr