

/*

Create student database with appropriate data members that should use the following features of object oriented programming in C++. Class, Object, array of objects, new , delete, default constructor to initialize student class fields, parameterized constructor to set the values into the objects, access specifiers

*/

```
#include<iostream>           //including header file
#include<string>              //includong string file
int n=10;
using namespace std;         //define scope
class student_data           //class name student_data
{
private: string name,mail,dob,bg;      //declaring variables
        char div;
        int rn;
        char cls[3];
        char contact[10];
public: student_data()           //default construcor
    {
        name="student";
        rn=0;
        mail="abc46@dindo.com";
    }
    student_data(int r,char d)
    {
        r=19;
        d=div;
    }
    void get_record()           //accepting data
    {
        cout<<"*****\n";
        cout<<"Enter name of student:";
        cin>>name;
        cout<<"Enter student roll no:";
        cin>>rn;
        cout<<"Enter the class of student(FE/SE/TE/BE): ";
        cin>>cls;
        cout<<"Enter division:";
        cin>>div;
        cout<<"Enter Date Of Birth: ";
        cin>>dob;
        cout<<"Enter the Blood group: ";
        cin>>bg;
        cout<<"Enter Address:";
        cin>>mail;
        cout<<"Enter contact no: ";
        cin>>contact;
        cout<<endl;
    }
    void display_info()         //display data
    {
        cout<<name<<"\t "
```

```

        <<rn<<"\t"
        <<cls<<"\t"
        <<div<<"\t\t"
        <<dob<<"\t"
        <<bg<<"\t"
        <<mail<<"\t"
        <<contact<<"\t";
        cout<<endl;
    }
    int roll_num()                //return roll no for searching
    {
        return rn;
    }
};                                //end of class

int main()                        //main function
{
    int op,i,rns,flag=0;
    char exi;
    cout<<"Enter total number of student:";
    cin>>n;
    student_data s2(19,'c');
    student_data *s=new student_data[n];

    do
    {
        cout<<"\nEnter\n";                //options for searching ,display,etc
        cout<<"\n1 : add new record for student";
        cout<<"\n2 : display record of the student";
        cout<<"\n3 : search for the record of student";
        cout<<"\n4 : update record of the student\n";
        cin>>op;

        switch(op)                    //switch cases
        {
            case 1:{

                for(i=0;i<n;i++)
                {
                    s[i].get_record();

                }
                }break;
            case 2:{cout<<"\nName\tRoll no\tClass\tDivision\tDate of Birth\tBlood
Group\tAddress\tContact"<<endl;
                for(i=0;i<n;i++)
                {
                    s[i].display_info();

                }
                } break;
            case 3:{
                cout<<"Enter roll number to search:";
                cin>>rns;

```

```

        for(i=0;i<n;i++)
        {
            if(rns==s[i].roll_num())
            {
                s[i].display_info();
            }
        }
        break;
    }
    case 4:{
        cout<<"Enter roll number to update details:";
        cin>>rns;
        for(i=0;i<n;i++)
        {
            if(rns==s[i].roll_num())
            {
                s[i].get_record();
                s[i].display_info();
            }
        }
        }break;
    default:cout<<"Invalid";break;
}
cout<<"Do you want to exit(Y/N)?"
cin>>exi;
}while(exi=='n'||exi=='N');
return 0;
} //end of program
/*

```

OUTPUT

Enter total number of student:5

Enter

- 1 : add new record for student
- 2 : display record of the student
- 3 : search for the record of student
- 4 : update record of the student

1

Enter name of student:saurabh

Enter student roll no:1

Enter the class of student(FE/SE/TE/BE): se

Enter division:c

Enter Date Of Birth: 16/12/1999

Enter the Blood group: o+

Enter Address:pune

Enter contact no: 9146445104

Enter name of student:akash

Enter student roll no:2

Enter the class of student(FE/SE/TE/BE): se
Enter division:c
Enter Date Of Birth: 1/2/1999
Enter the Blood group: o+
Enter Address:pune
Enter contact no: 7559462520

Enter name of student:aditya
Enter student roll no:3
Enter the class of student(FE/SE/TE/BE): se
Enter division:c
Enter Date Of Birth: 12/4/1999
Enter the Blood group: a
Enter Address:pune
Enter contact no: 9541236584

Enter name of student:mayuresh
Enter student roll no:35
Enter the class of student(FE/SE/TE/BE): se
Enter division:c
Enter Date Of Birth: 5/5/1999
Enter the Blood group: ab+
Enter Address:pune
Enter contact no: 9654785120

Enter name of student:seetaraman
Enter student roll no:12
Enter the class of student(FE/SE/TE/BE): se
Enter division:c
Enter Date Of Birth: 12/4/2000
Enter the Blood group: b+
Enter Address:pune
Enter contact no: 8452301458

Do you want to exit(Y/N)?n

Enter

- 1 : add new record for student
 - 2 : display record of the student
 - 3 : search for the record of student
 - 4 : update record of the student
- 2

Name	Roll no	Class	Division	Date of Birth	Blood Group	Address	Contact
saurabh	1	se	c	16/12/1999	o+	pune	9146445104
akash	2	se	c	1/2/1999	o+	pune	7559462520
aditya	3	se	c	12/4/1999	a	pune	9541236584
mayuresh	35	se	c	5/5/1999	ab+	pune	9654785120

seetaraman 12 se c 12/4/2000 b+ pune 8452301458
Do you want to exit(Y/N)?n

Enter

- 1 : add new record for student
- 2 : display record of the student
- 3 : search for the record of student
- 4 : update record of the student

3

Enter roll number to search:3

aditya 3 se c 12/4/1999 a pune 9541236584

Do you want to exit(Y/N)?n

Enter

- 1 : add new record for student
- 2 : display record of the student
- 3 : search for the record of student
- 4 : update record of the student

4

Enter roll number to update details:12

Enter name of student:prajwal

Enter student roll no:11

Enter the class of student(FE/SE/TE/BE): se

Enter division:c

Enter Date Of Birth: 12/7/1999

Enter the Blood group: a

Enter Address:pune

Enter contact no: 7895410365

prajwal 11 se c 12/7/1999 a pune 7895410365

Do you want to exit(Y/N)?n

Enter

- 1 : add new record for student
- 2 : display record of the student
- 3 : search for the record of student
- 4 : update record of the student

2

Name	Roll no	Class	Division	Date of Birth	Blood Group	Address	Contact
saurabh	1	se	c	16/12/1999	o+	pune 9146445104	
akash	2	se	c	1/2/1999	o+	pune 7559462520	
aditya	3	se	c	12/4/1999	a	pune 9541236584	
mayuresh	35	se	c	5/5/1999	ab+	pune 9654785120	
prajwal	11	se	c	12/7/1999	a	pune 7895410365	

Do you want to exit(Y/N)?y

*/