**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Assignment No2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

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**Develop a program in C++ to create a database of student’s information system containing the following information: Name, Roll number, Class, Division, Date of Birth, Blood group, contact address, Telephone number, Driving license no. and other. Construct the database with suitable member functions. Make use of constructor, default constructor, copy constructor, destructor, static member functions, friend class, this pointer, inline code and dynamic memory allocation operators-new and delete as well as exception handling.**

#include<iostream> #include<string.h> using namespace std; #define max 100; class per\_info

{

string lic,dob,bldgrp; public: per\_info(); per\_info(per\_info &);

~per\_info()

{

cout<<"\n DESTRUCTOR CALLED !!!!!"<<endl<<"RECORD DELETED

SUCCESSFULLY !!!!";

}

friend class student ;

};

class student

{

string name,address,year;

char div;

int roll\_no; long mob;

static int cnt; public:

void create(per\_info &);

void display(per\_info &);

inline static void inccnt()

{ cnt++;

}

inline static void showcnt()

{

cout<<"\n TOTAL NUMBER OF RECORDS ARE :"<<cnt;

}

student();

student(student &);

~student()

{

cout<<"\n DESTRUCTOR IS CALLED !!!"<<endl<<"RECORDS

DELETED SUCCESSFULLY !!!!";

}

}; int student::cnt; student :: student()

{

name="srushti vhare"; address="Dharashiv"; year="SECOMP"; div='A'; roll\_no=20581;

mob=8605687730;

}

per\_info::per\_info()

{

lic="ABCD123"; dob="18-9-2004";

bldgrp="o+";

}

student::student(student &obj)

{

this->name=obj.name; this->address=obj.address; this->year=obj.year; this->div=obj.div;

this->roll\_no=obj.roll\_no;

this->mob=obj.mob;

} per\_info::per\_info(per\_info &obj)

{

lic=obj.lic; dob=obj.dob;

bldgrp=obj.bldgrp;

}

void student::create(per\_info &obj)

{

cout<<"\n Name :";

cin>>name;

cout<<"\n Address :"; cin>>address;

cout<<"\n Date of birth :"; cin>>obj.dob;

cout<<"\n Year :";

cin>>year; cout<<"\n Division :"; cin>>div;

cout<<"\n Roll Number :";

cin>>roll\_no; cout<<"\n Blood Group :"; cin>>obj.bldgrp; cout<<"\n License Number :"; cin>>obj.lic; cout<<"\n Mobile Number :"; cin>>mob;

}

void student::display(per\_info &obj)

{

cout<<"\n \*\*\*\*\*\*\*\*\*Student Information \*\*\*\*\*\*\*\*";

cout<<"\n Name :"<<name; cout<<"\n Address :"<<address; cout<<"\n Date of birth :"<<obj.dob; cout<<"\n Year :"<<year; cout<<"\n Division :"<<div; cout<<"\n Roll Number :"<<roll\_no; cout<<"\n Blood Group :"<<obj.bldgrp; cout<<"\n License Number :"<<obj.lic; cout<<"\n Mobile Number :"<<mob; cout<<"\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

} int main()

{

int n; int ch;

char ans;

cout<<"\n Enter No Of Student :";

cin>>n;

cout<<"\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"; student \*sobj=new student[n];

per\_info \*pobj=new per\_info[n];

do

{

cout<<"\n Menu \n 1.Create Databse \n 2.Display Database \n 3.Copy Constructor \n

4.Default Constructor \n 5.Delete(Destructor)"; cout<<"\nEnter Your Choice :";

cin>>ch; switch(ch)

{ case 1:

{

for(int i=0;i<n;i++)

{

sobj[i].create(pobj[i]);

sobj[i].inccnt();

}

}

break; case 2:

{

sobj[0].showcnt();

for(int i=0;i<n;i++)

{

sobj[i].display(pobj[i]);

}

}

break; case 3:

{

student obj1; per\_info obj2; obj1.create(obj2);

student obj3(obj1);

per\_info obj4(obj2);

cout<<"\n Copy Constructor Is Called"; obj3.display(obj4);

}

break; case 4:

{

student obj1;

per\_info obj2;

cout<<"\n Default Constructor Is Called "; obj1.display(obj2);

}

break; case 5:

delete [] sobj;

delete [] pobj;

}

cout<<"\n Want To Continue :(y/n)"; cin>>ans;

}while(ans=='y');

return 0;

}

**Output:**







