Q1

#include<iostream>

using namespace std;

class student;

class department

{

student \*s1;

char \* name;

public:

department()

{

int n;

cout<<"enter the number of character in name \n";

cin>>n;

name=new char[n];

cout<<"enter tne name of department \n";

cin>>name;

}

~department(){

cout<<"the object is deleted \n";

delete []name;

}

void dname()

{

cout<<"the name in department "<<name<<endl;

}

};

class student

{

char \* name;

department \*d;

public:

student()

{

int n;

cout<<"enter the number of character in name \n";

cin>>n;

name=new char[n];

cout<<"enter tne name \n";

cin>>name;

}

~student(){

cout<<"the object is deleted \n";

delete []name;

}

void sname()

{

cout<<"the name in student \n"<<name;

}

};

class course{

student std\_p;

department dept\_p;

char \* coursename\_p;

static unsigned int index;

static course courselist\_p;

public:

std\_p.name;

dept\_p.name;

}

Q2

#include<iostream>

using namespace std;

class employee{

char \* myname\_p;

public:

employee()

{

int n;

cout<<"enter the number of character in name \n";

cin>>n;

myname\_p=new char[n];

cout<<"enter tne name of employee \n";

cin>>myname\_p;

}

~employee{

delete [] myname\_p;

cout<<"the object is deleted";

}

void display()

{

cout<<"the name of employee"<<myname\_p<<endl;

}

};

class company{

char \* name\_p;

employee \*employee;

};

Q2

#include<iostream>

using namespace std;

class employee{

    char \* myname\_p;

    public:

        employee(){

            cout<<"enter the name of employee";

            myname\_p=new char[10];

            cin>>myname\_p;

}

        ~employee(){

             cout<<"the name of employee is"<<myname\_p;

}

};

class company{

    char \* myname\_p;

    employee \*myemp\_p;

    public:

        company(){

            cout<<"enter the name of company";

            myname\_p=new char[10];

            cin>>myname\_p;

            int n;

            cout<<"enter the no. of employee";

            cin>>n;

            myemp\_p=new employee[n];

}

        ~company(){

             cout<<"the name of company is "<<myname\_p;

}

};

int main()

{

    company c;

}

Q3

#include <iostream>

using namespace std;

class house;

class room

{

    char \*name\_p;

    //house myhouse\_p;

    public:

    room()

    {

        cout<<"enter the name of room : ";

        name\_p=new char[10];

        cin>>name\_p;

        cout<<endl<<"the room is crated"<<endl;

    }

    ~room()

    {

        cout<<"room is destroyed "<<endl;

    }

    void display()

    {

        cout<<"the name of the room is : "<<name\_p;

    }

    static void  createroom\_v()

    {

    }

    static void initlist\_v(){}

};

class house {

    char  \*name\_p;

    room roomslist\_p;

    public:

    house()

    {

        cout<<"enter the name of house";

        name\_p=new char[10];

        cin>>name\_p;

        cout<<"the house is created"<<endl;

    }

    ~house()

    {

        cout<<"the house is destroyed"<<endl;

    }

    void dispaly()

    {

        cout<<"the name od house is :"<<name\_p;

    }

};

int main()

{

    house h;

}

Q4,5,6,7

#include<iostream>

using namespace std;

class wheel //aggregation releation beetween class wheel and vehicle

{

};

class vehicle //main class

{

    wheel \*wheel\_base;

    int max\_power;

    public :

    int seat;

    vehicle()

    {

        wheel\_base=new wheel;

    }

    void pressAccleration();

    void turnWheel();

    void pressBreak();

};

class car:public vehicle{};//generalisation b/t car and vehicle(base)

class tachograph{

};

class lorry:public vehicle{//generalisation b/t lorry and vehicle(base)

    tachograph \*h;

    public:

    lorry()

    {

        h=new tachograph;   //aggregation b/w lorry and tachograph

    }

};

class person{ // assoication with vehicle class

    vehicle \*v;

};

ss