// <https://github.com/mannanarama/CS-256>

#include "stdafx.h"

#include <iostream>

#include <string>

using namespace std;

class Human

{

private:

string name;

int age;

char sex;

Human()

{

name = "";

age = 0;

sex = '';

};

protected:

Human(string n, int ageNum, char gender)

{

name = n;

age = ageNum;

sex = gender;

}

public:

void setName(string n)

{

name = n;

}

void setAge(int a)

{

age = a;

}

void setSex(string s)

{

sex = s;

}

string getName()

{

return name;

}

int getAge()

{

return age;

}

char getSex()

{

return sex;

}

virtual work();

};

class Parent : public Human

{

private:

vector<Child> children;

public:

void setName(string n)

{

name = n;

}

string getName()

{

return name;

}

};

class Child : public Human

{

private:

Parent Mom;

Parent Dad;

Child()

{

name = "";

age = 0;

sex = '';

};

public:

Child(Parent m, Parent d)

{

Mom = m;

Dad = d;

}

};

int main()

{

Parent homer = new Parent("Homer",36, 'M'); // Set up family

Parent march = new Parent("March", 34, 'F');

Child lisa = new Child("Lisa", 12, 'F');

Child bart = new Child("Bart", 10, 'M');

Child maggie = new Child("Maggie", 3, 'F');

Parent \*march = new Child;

typeid(\*march).lisa.setName(); // Parents set child name

Parent \*homer = new Child;

typeid(\*homer).bart.setName();

typeid(\*homer).maggie.setName();

cout << homer.getName() << "\t" << homer.getAge() << "\t" << homer.getSex() << endl;

cout << "Safety Inspector\n";

cout << lisa.getName() << "\t" << lisa.getAge() << "\t" << lisa.getSex() << endl;

cout << "Student\n";

cout << maggie.getName() << "\t" << maggie.getAge() << "\t" << maggie.getSex() << endl;

cout << "Play\n";

};