/\*C++ program to demonstrate example of hierarchical inheritance

to get square and cube of a number.\*/

#include <iostream>

using namespace std;

class Number

{

private:

int num;

public:

void getNumber(void)

{

cout << "Enter an integer number: ";

cin >> num;

}

//to return num

int returnNumber(void)

{ return num; }

};

//Base Class 1, to calculate square of a number

class Square:public Number

{

public:

int getSquare(void)

{

int num,sqr;

num=returnNumber(); //get number from class Number

sqr=num\*num;

return sqr;

}

};

//Base Class 2, to calculate cube of a number

class Cube:public Number

{

private:

public:

int getCube(void)

{

int num,cube;

num=returnNumber(); //get number from class Number

cube=num\*num\*num;

return cube;

}

};

int main()

{

Square objS;

Cube objC;

int sqr,cube;

objS.getNumber();

sqr =objS.getSquare();

cout << "Square of "<< objS.returnNumber() << " is: " << sqr << endl;

objC.getNumber();

cube=objC.getCube();

cout << "Cube of "<< objS.returnNumber() << " is: " << cube << endl;

return 0;

}