#include <iostream>

using namespace std;

class box//base class

{

public:

void setHeight(int h)

{

height=h;

}

void setBreadth(int b)

{

breadth=b;

}

void setWidth(int w)// member function

{

Width=w;

}

public:

int Width; //data members

int height; //data members

int breadth; //data member

};

class abc:public box

{

public:

int getVolume()

{

return ( Width\*height\*breadth);

}

int getWidth()

{

return(Width=10);

}

int getHeight()

{

return(height=13);

}

int getBreadth()

{

return(breadth = 12);

}

};

int main()

{

abc obj1;

obj1.getWidth(); // calling function

obj1.getHeight(); // calling function

obj1.getBreadth(); // calling function

cout<<"\nEnter the length of box is :- "<<obj1.getWidth();

cout<<"\nEnter the height of box is :- "<<obj1.getHeight();

cout<<"\nEnter the breadth of the box is :- "<<obj1.getBreadth();

cout<<"\nEnter the volume of the box:-length\*height\*breadth = "<<obj1.getVolume();

return 0 ;

}

#include <iostream>

using namespace std;

class arithmetic // base class

{

public:

int a = 25;

int b = 15;

void setAdd(int)

{

Addition=25+15;

}

void setSub(int)

{

Subtraction=25-15;

}

void setMulti(int)// member function

{

Multiplication=25\*15;

}

void setDiv(int)

{

Division= 25/15;

}

public:

int Addition; //data members

int Subtraction; //data members

int Multiplication; //data member

int Division;

};

class opreations :public arithmetic

{

public:

int getAdd()

{

return ( 25+15);

}

int getSub()

{

return(25-15);

}

int getMulti()

{

return(25\*15);

}

int getDiv()

{

return(25/15);

}

};

int main()

{

opreations obj1;

obj1.getAdd(); // calling function

obj1.getSub(); // calling function

obj1.getMulti(); // calling function

obj1.getDiv(); // calling function

cout<<"\nEnter the Addition : "<<obj1.getAdd();

cout<<"\nEnter the Subtraction :"<<obj1.getSub();

cout<<"\nEnter the Multiplication : "<<obj1.getMulti();

cout<<"\nEnter the Division:"<<obj1.getDiv();

return 0 ;

}

#include<iostream>

using namespace std;

int main()

{

// declare variables

double A, B;

// take input from end-user

cout << "Enter two Numbers :: ";

cin >> A >> B;

// addition of two number

cout << A << "+" << B << " = "<< A+B << endl;

// subtraction of two number

cout << A << "-" << B << " = "<< A-B << endl;

// multiplication of two number

cout << A<< "\*" << B << " = "<< A\*B << endl;

// division of two number

cout << A << "/" << B << " = "<< A/B << endl;

return 0;

}

#include<iostream>

using namespace std;

class student

{

char Name[25];

int Number;

char percentage[8];

char grade[2];

public:

void GetData();

void PutData();

};

void student :: GetData() //Statement 1 : Defining GetData()

{

cout<<"\n\tEnter student Name : ";

cin>>Name;

cout<<"\n\tEnter student uid : ";

cin>>uid;

cout<<"\n\tEnter student percentage:";

cin>>percentage;

cout<<"\n\tEnter student grade : ";

cin>>grade;

}

void student :: PutData() //Statement 2 : Defining PutData()

{

cout<<"\nstudent Name : "<<Name;

cout<<"\nstudent uid : "<<uid;

cout<<"\nstudent percentage:"<<percentage;

cout<<"\nstudent grade : "<<grade;

}

int main()

{

Employee E[1]; //Statement 3 : Creating Object

int i;

for(i=0;i<1;i++)

{

E[i].GetData(); //Statement 4 : Calling GetData()

}

for(i=0;i<1;i++)

{

E[i].PutData(); //Statement 5 : Calling PutData()

}

return 0;

}

#include <iostream>

using namespace std;

inline int Max(int x, int y) {

return (x > y)? x : y;

}

// Main function for the program

int main() {

cout << "Max (20,10): " << Max(20,10) << endl;

cout << "Max (0,200): " << Max(0,200) << endl;

cout << "Max (100,1010): " << Max(100,1010) << endl;

return 0;

}

#include <iostream>

using namespace std;

class operation

{

int a,b,add,sub,mul,mod; //data members

float div;

public:

void get();

void sum();

void difference(); // Declaration

void product();

void division();

void modulus();

};

inline void operation :: get()

{

cout << "Enter first value:";

cin >> a;

cout << "Enter second value:";

cin >> b;

}

inline void operation :: sum()

{

add = a+b;

cout << "Addition of two numbers: " << a+b << "\n";

}

inline void operation :: difference()

{

sub = a-b;

cout << "Difference of two numbers: " << a-b << "\n";

}

inline void operation :: product()

{

mul = a\*b;

cout << "Product of two numbers: " << a\*b << "\n";

}

void inline operation ::division()

{

div=a/b;

cout<<"Division of two numbers: "<<a/float(b)<<"\n" ;

}

inline void operation :: modulus()

{

mod=a%b;

cout<<"Modulus of two numbers: "<<a%b<<"\n" ;

}

int main()

{

cout << "Program using inline function\n";

operation s; //creating instance

s.get();

s.sum();

s.difference();

s.product();

s.division();

s.modulus();

return 0;

}

#include <iostream>

#include <stdlib.h>

using namespace std;

class electricity

{

char name[20];

int unit;

float Rs;

public:

void get()

{

cout<<"\nEnter the Name & Unit's of Electricity user: \n";

cin>>name>>unit;

}

void check()

{

if(unit<=100)

{

Rs=unit\*0.40;

Rs=Rs+150;

}

else if(unit<=200||unit>100)

{

Rs=unit\*0.50;

Rs=Rs+150;

}

else if(unit<=300||unit>200)

{

Rs=unit\*0.60;

Rs=Rs+150;

}

}

void disp()

{

if(Rs>=250)

{

Rs=Rs+0.15;

}

cout<<name<<"\t" <<Rs<<endl;

}

};

int main()

{

int n,i;

electricity e[10];

system("CLS");

cout<<"\nHow many electricity User: \n";

cin>>n;

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

{

e[i].get();

e[i].check();

}

cout<<"\nElectricity User’s: \n";

cout<<"\nName\t Total cost(Rs)\n";

cout<<"=================================\n";

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

{

e[i].disp();

}

}

// C++ program to demonstrate private

// access modifier

#include<iostream>

using namespace std;

class Circle

{

// private data member

private:

double radius;

// public member function

public:

void compute\_area(double r)

{ // member function can access private

// data member radius

radius = r;

double area = 3.14\*radius\*radius;

cout << "Radius is: " << radius << endl;

cout << "Area is: " << area;

}

};

// main function

int main()

{

// creating object of the class

Circle obj;

// trying to access private data member

// directly outside the class

obj.compute\_area(1.5);

return 0;

}

// C++ program to demonstrate the working of public inheritance

#include <iostream>

using namespace std;

class Base { //super class

public:

{

private:

int pvt = 1;

}

public :

{

int getPVT()

pvt = 1;

}

protected:

int prot = 2;

public:

int pub = 3;

// function to access private member

/\*

int getPVT()

{

return pvt;

} \*/

};

class PublicDerived : public Base { //derived class

public:

// function to access protected member from Base

int getProt() {

return prot;

}

public :

int getPvt()

{

return pvt;

}

};

int main() {

PublicDerived object1;

cout << "Private = " << object1.getPvt() << endl;

cout << "Protected = " << object1.getProt() << endl;

cout << "Public = " << object1.pub << endl;

return 0;

}