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**General syntax :**

class Base {

 public: // public members go here

 protected: // protected members go here

 private: // private members go here

};

**Examples:**

#include <iostream>

using namespace std;

class rectangleType

{

protected:

 double length;

 double width;

public:

 rectangleType();

 rectangleType( double L, double w);

 ~rectangleType();

 void setDimension ( double L, double w);

 double getLength();

 double getWidth();

 double area();

 double perimeter();

 void print();

};

rectangleType::rectangleType()‏

{ length = 0; width = 0;}

rectangleType::rectangleType( double L, double w)‏

{ setDimension( L , w); }

rectangleType::~rectangleType(){ }

void rectangleType::setDimension( double L, double w)‏

{ if ( L >= 0 ) length = L;

 else length = 0;

 if ( w >= 0 )width= w;

 else width = 0;

}

double rectangleType::getLength()‏

{ return length;}

double rectangleType::getWidth()‏

{ return width;}

double rectangleType::area()‏

{ return length \* width;}

double rectangleType::perimeter()‏

{ return 2 \* ( length + width );}

void rectangleType::print()‏{

 cout<<"Length = "<< length << " ; Width = " << width;

}

int main()

{ double x,y;

 cout<<" Enter the length and width of the rectangle R1: ";

 cin>>x>>y;

 rectangleType R1(x,y), R2(12,4), R3(9,10);

 cout<<" the area of R1= "<<R1.area()<<endl;

 cout<<" the perimeter of R1= "<<R1.perimeter()<<endl;

 cout<<" the area of R2= "<<R2.area()<<endl;

 cout<<" the perimeter of R2= "<<R2.perimeter()<<endl;

 cout<<" the area of R3= "<<R3.area()<<endl;

 cout<<" the perimeter of R3= "<<R3.perimeter()<<endl;

 return 0;

}

#include <iostream>

using namespace std;

//========================

class Line

{ public:

 double length;

 void setLength( double len );

 double getLength();

};

void Line::setLength( double len )

{ length = len;}

// Member functions definitions

double Line::getLength()

{ return length ;}

//=================================================

// Main function for the program

int main( )

{ Line l1;

 // set line length

 l1.setLength(6.0);

 cout << "Length of line : " << l1.getLength() <<endl;

 // set line length without member function

 l1.length = 10.0; // OK: because length is public

 cout << "Length of line : " << l1.length <<endl;

 return 0;

}

**Output :**

****

#include <iostream>

using namespace std;

class Box

{

 public:

 double length; // Length of a box

 double breadth; // Breadth of a box

 double height; // Height of a box

 void volume(); // to calculate volume

};

void Box::volume()

{ double volume;

 volume = height \* length \*breadth;

 cout << "Volume of Box : " << volume <<endl;

}

int main( )

{

 Box Box1; // Declare Box1 of type Box

 Box Box2; // Declare Box2 of type Box

 double volume = 0.0; // Store the volume of a box here

 // box 1 specification

 Box1.height = 5.0;

 Box1.length = 6.0;

 Box1.breadth = 7.0;

 // box 2 specification

 Box2.height = 10.0;

 Box2.length = 12.0;

 Box2.breadth = 13.0;

 // volume of box 1

 cout << "Volume of Box1 : " <<endl;

 Box1.volume();

 // volume of box 2

 cout << "Volume of Box2 : " <<endl;

 Box2.volume();

 return 0;

}

**Output :**

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