Practical: 18 Create a base class called 'SHAPE' having

- Two data members of type double

- Member function *get-data* ( ) to initialize base class data members- pure virtual member function *display-area*( ) to compute and display the area of the geometrical object.

Derive two specific classes 'TRIANGLE' and 'RECTANGLE' from the base class. Using these three classes design a program that will accept dimension of a triangle / rectangle interactively and display the area.

```
#include<iostream>

using namespace std;

class shape

{

protected:

    double x, y;

public:

    void getdata(double a, double b)

    {   x=a;

        y=b;

    }

    virtual void display_area()=0;

};

class triangle:public shape

{   double triangle_area; void display_area()

    {      triangle_area=(1*x*y)/2;

           cout<<"area of triangle is:"<<triangle_area<<endl;

    }

};
```

```
class rectangle:public shape
{   double rectangle_area; void display_area()
    {   rectangle_area=x*y;
        cout<<"area of rectangle is:"<<rectangle_area;
    }
};
int main()
{   shape *p; triangle t; rectangle r; p=&t;
    p->getdata(10,30);
    p->display_area();
    p=&r;
    p->getdata(20,30);
    p->display_area();
    return 0;
}
```

Output 18