

## ASSIGNMENT - 5

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Batch - C

```
#include <iostream>
```

```
using namespace std;
```

```
class Shape {
```

```
public:
```

```
    void get_data() {  
        cout << "Enter base(x): ";  
        cin >> x;  
        cout << "Enter height(y): ";  
        cin >> y;  
    }
```

```
    virtual void display_area() = 0;
```

```
    int x;  
    int y;  
};
```

```
class Triangle : public Shape {
```

```
public:
```

```
    void display_area() {  
        cout << "Area of triangle is: " << (0.5) * x * y << endl;  
    }  
};
```

```
class Rectangle : public Shape {
```

```
public:
```

```
    void display_area() {  
        cout << "Area of rectangle is: " << x * y << endl;
```

```

    }
};

int main() {
    Shape* st;
    Triangle t;
    Rectangle r;

    st = &t;
    cout << "--- Triangle ---" << endl;
    st-> get_data();
    st-> display_area();

    st = &r;
    cout << "\n--- Rectangle ---" << endl;
    st-> get_data();
    st-> display_area();

    return 0;
}

```

## OUTPUT:-

--- Triangle ---

Enter base(x): 3

Enter height(y): 2

Area of triangle is: 3

--- Rectangle ---

Enter base(x): 3

Enter height(y): 3

Area of rectangle is: 9