

### Task 3:

```
1  #include <iostream>
2  class Rectangle {
3      public:
4          // Constructor
5      Rectangle(int w, int h) {
6          width = w;
7          height = h;
8      }
9          // Method to calculate area
10     int area() {
11         return width * height;
12     }
13     // Method to set width
14     void setWidth(int w) {
15         width = w;
16     }
17     // Method to set height
18     void setHeight(int h) {
19         height = h;
20     }
21     private:
22         int width;
23         int height;
24 };
25 int main() {
26     // Create a Rectangle object
27     Rectangle rect(6, 7);
28     // Call methods on the object
29     std::cout << "Width: " << rect.area() << std::endl;
30     std::cout << "Height: " << rect.area() << std::endl;
31     std::cout << "Area: " << rect.area() << std::endl;
32     // Set new values using the methods
33     rect.setWidth(6);
34     rect.setHeight(8);
35     // Call methods on the object with the new values
36     std::cout << "Width: " << rect.area() << std::endl;
37     std::cout << "Height: " << rect.area() << std::endl;
38     std::cout << "Area: " << rect.area() << std::endl;
39     return 0;
40 }
```

## Output:

```
/tmp/sUCMCaxzCY.o
```

```
Width: 20
```

```
Height: 20
```

```
Area: 20
```

```
Width: 48
```

```
Height: 48
```

```
Area: 48
```