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## Assignment-3

1. Make a Rectangle class that stores a width and a height. Make a few instances and print out the properties. Modify a few of the properties and print out the results again.

JavaScript:

```
Q1 >  index.js > ...
1  class rectangle {
2    constructor(width, height) {
3      this.width = width;
4      this.height = height;
5    }
6  }
7
8  myRectangle = new rectangle(10, 5);
9
10 document.write(
11   `Output: Width = ${myRectangle.width} , Height = ${myRectangle.height}`
12 );
13
```

Output:

← → ↻ ⓘ 127.0.0.1:5500/Q1/index.html



1. Make a Rectangle class that stores a width and a height. Make a few instances and print out the properties. Modify a few of the properties and print out the results again.

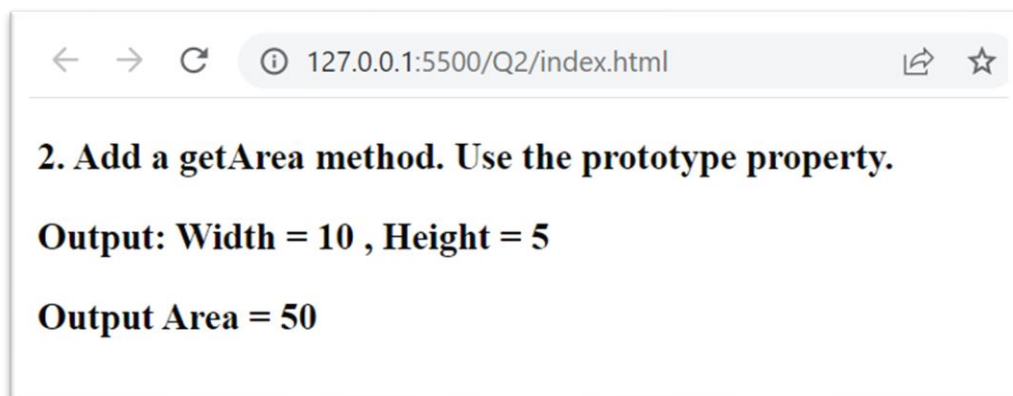
Output: Width = 10 , Height = 5

2. Add a getArea method. Use the prototype property.

JavaScript Code:

```
Q2 > js index.js > ...
1  class rectangle {
2    constructor(width, height) {
3      this.width = width;
4      this.height = height;
5    }
6  }
7  rectangle.prototype.getArea = function () {
8    return this.width * this.height;
9  };
10 myRectangle = new rectangle(10, 5);
11
12 document.write(
13   `<h3>Output: Width = ${myRectangle.width} , Height = ${myRectangle.height}</h3>`
14 );
15
16 document.write(`<h3>Output Area = ${myRectangle.getArea()}</h3>`);
17
```

Output:



3. Assuming that the Rectangle constructor takes a width and a height, why does the following output 20 instead of 200? (Hint: if you see an answer that seems too obvious to be what I am looking for,

it probably is the answer I am looking for.)

```
Rectangle r = new Rectangle(4, 5);
```

```
r.hieght = 50;
```

`r.getArea(); --> 20 // Not 200`

### JavaScript Code:

```
Q3 > JS index.js > ...
1  class rectangle {
2    constructor(width, height) {
3      this.width = width;
4      this.height = height;
5    }
6  }
7  rectangle.prototype.getArea = function () {
8    return this.width * this.height;
9  };
10 myRectangle = new rectangle(4, 5);
11
12 document.write(
13   `

### 


```

### Output:

3. Assuming that the Rectangle constructor takes a width and a height, why does the following output 20 instead of 200? (Hint: if you see an answer that seems too obvious to be what I am looking for, it probably is the answer I am looking for.)

**Output: Width = 4 , Height = 5**

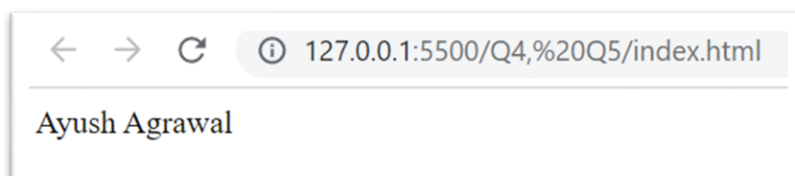
**Output Area = 20**

**Q4 and Q5:**

**JavaScript Code:**

```
index.html  JS index.js  X
Q4, Q5 > JS index.js > ...
1  class Person {
2      constructor(first, middle, last) {
3          this.first = first;
4          this.middle = middle;
5          this.last = last;
6      }
7  }
8
9  let per1 = new Person("Ayush", "Agrawal");
10 per1.middle = "";
11 per1.last = "Agrawal";
12 document.write(per1.first + " " + per1.middle + " " + per1.last);
13
```

**Output:**



**Q6 & Q7**

**JavaScript Code:**

Q6, Q7 > `JS` index.js > `text`

```
1  const text = '[ "Ayush", "Agrawal" ]';  
2  const myArr = JSON.parse(text);  
3  
4  document.write(`<h3>First Name: ${myArr[0]}</h3>`);  
5  document.write(`<h3>Last Name: ${myArr[1]}</h3>`);  
6
```

**Output:**

← → ↻ ⓘ 127.0.0.1:5500/Q6,%20Q7/index.html

**Output:**

**First Name: Ayush**

**Last Name: Agrawal**