

1.	<p>FizzBuzz</p> <p>Time: 30 Minutes</p> <p>Write a method named <i>getFizzyBuzz</i> in a class <i>FizzBuzz</i>. The method should take an integer <i>n</i> as a parameter and return a string. The logic should be:</p> <ol style="list-style-type: none"> 1. If <i>n</i> is divisible by 3, return "Fizz". 2. If <i>n</i> is divisible by 7, return "Buzz". 3. If <i>n</i> is divisible by both, return "Fizzbuzz". 4. Otherwise, return "Gotcha". <p>Write at least 4 unit tests to validate each of the cases.</p>	5
2.	<p>MinStack</p> <p>Time: 40 minutes</p> <p>You need to create a class named <i>MinStack</i> that represents a last-in-first-out (LIFO) data structure with the following properties:</p> <ol style="list-style-type: none"> 1. It has <i>push(int)</i> and <i>pop()</i> operations that work the same way as a normal stack. 2. In addition, it has a <i>min()</i> operation that returns the minimum value in the current stack. <p>Constraints</p> <p>The <i>min()</i> operation should operate at constant complexity, $O(1)$. This means you cannot use a loop or recursion to find the minimum value.</p> <p>Test cases</p> <ol style="list-style-type: none"> 1. Push 3, 2, 5, 1. Assert min = 1. 2. Then, Pop. Assert min = 2. 3. Push 12, 3, 4. Assert min = 3. <p>Hint</p> <ol style="list-style-type: none"> 1. You can use the built-in Stack class if necessary. 	10
3.	Solve the LSP task of lab 5	10