# JS Advanced: Exam Preparation

Problems for exam preparation for the [“JavaScript Advanced” course @ SoftUni](https://softuni.bg/courses/javascript-advanced). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/352/>.

## Sorted List

Write Mocha tests to verify the functionality of the following JS code:

|  |
| --- |
| sorted-list.js |
| **class** SortedList {  constructor() {  **this**.**list** = [];  }   add(element) {  **this**.**list**.push(element);  **this**.sort();  }   remove(index) {  **this**.vrfyRange(index);  **this**.**list**.splice(index, 1);  }   get(index) {  **this**.vrfyRange(index);  **return this**.**list**[index];  }   vrfyRange(index) {  **if** (**this**.**list**.**length** == 0) **throw new** Error(**"Collection is empty."**);  **if** (index < 0 || index >= **this**.**list**.**length**) **throw new** Error(**"Index was outside the bounds of the collection."**);  }   sort() {  **this**.**list**.sort((a, b) => a - b);  }   **get** size() {  **return this**.**list**.**length**;  } } |

Your tests will be supplied with a **class** named SortedList. It needs to meet the following requirements:

* Maintains a collection of **numeric** elements// not implemented in class!!!
* Has an add(element) function, which adds a new element to the collection
* Has a remove(index) function, which removes the element at position index
* Has a get(index) function, which return the value of the element at position index
* Keeps the elements of the collection **sorted** in **ascending** order at **all times**
* Throws an **error** if the functions get() and remove() are supplied with an **invalid index** (negative or outside the collection) or if the collection is **empty**
* Has a **size()** property **getter**, which returns the number of elements inside the collection

### Note

Submit your tests inside a describe() statement, using the **Unit Tests with Sinon and Mocha** Judge strategy.