# JS Advanced - Retake Exam

Exam problems 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/Practice/Index/1624#1>.

# Problem 2. Auto Service

Use the provided AutoServiceclass to solve this problem.

### Your Task

Using **Mocha** and **Chai** write **unit tests** to test the entire functionality of the AutoService class. Make sure instances of it have all the required functionality and validation. You may use the following code as a template:

|  |
| --- |
| describe(**"*Tests* …"**, **function**() {  describe(**"*TODO* …"**, **function**() {  ***it***(**"*TODO …*"**, **function**() {  *//* ***TODO:*** …  });  });  *//* ***TODO:*** …  }); |

### Functionality

The code inside the autoService.jsfile defines a class that contains information about an auto service. An instance of the class should support the following operations:

* **Instantiation** with **one parameter** - a **number** that represents the autoservice **garage capacity** (how many cars they can fit at the same time in the garage).
  + Contains **two additional properties** (workInProgress**,** backlogWork), which by **default** must be set to **empty arrays**.
* Accessor availableSpace- which **returns a number** that represents the **available space/capacity** in the auto service garage (how many cars more they can fit in the garage).
* Function signupForReview(clientName, plateNumber, carInfo) - registers a client for review. Receives **3 arguments:**
  + clientName - **string** ('Peter')
  + plateNumber - **string** ('CA1234CA')
  + carInfo - **object** ({'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken'})

If there is an **available** **space** in the garage, the current client is registered in the workInProgress array. Otherwise is registered in the backlogWork array.

* Function carInfo(clientName, plateNumber)- checks information about client. Receives **2 arguments**. Checks if the given information **exists** in workInProgress or backlogWork array and returns the client information (**object**) if any.
* Function repairCar() - get the **first available** (signed up for review) **car** from workInProgressarray. If there are no cars (workInProgress is empty) the second array (backlogWork) is checked for client (car). The function receives **no arguments**.
  + If the first available client's carInfo(object) has **broken** **parts** (the current **carInfo** has no keys with values that refer to "**broken**"), a message with all repaired parts is shown and the current client is removed from the collection.
  + If there are **no parts to be repaired** (the current **carInfo** has no keys with values that refer to "**broken**") or there are **no clients in both arrays** the corresponding message must be shown.

### Submission

Submit your tests inside a describe() statement, as shown above.

### Examples

This is an example how this code is **intended to be used**:

|  |
| --- |
| Sample code usage |
| let autoService = new AutoService(2);  autoService.signUpForReview('Peter', 'CA1234CA', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken'});  autoService.signUpForReview('Peter', 'CA1234CA', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'doors': 'broken', 'wheels': 'broken', 'tires': 'broken'});  autoService.signUpForReview('Philip', 'PB4321PB', {'engine': 'MFRGG23', 'transmission': 'FF4418ZZ', 'exaustPipe': 'REMUS'});  console.log(autoService.repairCar());  console.log(autoService.carInfo('PB9999PB', 'PHILIP'));  console.log(autoService.availableSpace); |
| Corresponding output |
| Your doors were repaired.  There is no car with platenumber PB9999PB and owner PHILIP.  1 |