





# Create a Map Data Structure




The next few challenges will cover maps and hash tables. Maps are data structures that store key-value pairs. In JavaScript, these are available to us as objects. Maps provide rapid lookup of stored items based on key values and are very common and useful data structures.

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Let's get some practice creating our own map. Because JavaScript objects provide a much more efficient map structure than anything we could write here, this is intended primarily as a learning exercise. However, JavaScript objects only provide us with certain operations. What if we wanted to define custom operations? Use the `Map` object provided here as a wrapper around a JavaScript `object`. Create the following methods and operations on the `Map` object:

- `add` accepts a `key, value` pair to add to the map.
  - `remove` accepts a key and removes the associated `key, value` pair
  - `get` accepts a `key` and returns the stored `value`
  - `has` accepts a `key` and returns *true* if the key exists or *false* if it doesn't.
  - `values` returns an array of all the values in the map
  - `size` returns the number of items in the map
  - `clear` empties the map
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	The <code>Map</code> data structure should exist.
	The <code>Map</code> object should have the following methods: <code>add</code> , <code>remove</code> , <code>get</code> , <code>has</code> , <code>values</code> , <code>clear</code> , and <code>size</code> .
	The <code>add</code> method should add items to the map.
	The <code>has</code> method should return <code>true</code> for added items and <code>false</code> for absent items.

	The <code>get</code> method should accept keys as input and should return the associated values.
	The <code>values</code> method should return all the values stored in the map as strings in an array.
	The <code>clear</code> method should empty the map and the <code>size</code> method should return the number of items present in the map.