

The coding test

Thank you for the opportunity to take this coding test.

I have not used JavaScript before, although I am now learning NodeJS in university coursework where the syntax is similar. Previous modules have used Python and C++ for client applications.

I used [w3schools](https://www.w3schools.com/) and [Stackoverflow](https://stackoverflow.com/) to research the techniques that I needed.

I have loaded my solution on my AWS server at <http://3.8.136.10/bbccodetest/main.html> and the source code is available at <https://github.com/Jamesdvdavidson/BBC-Trainee-Web>.

Walkthrough

When you first access the page, you are shown a welcome page with a list of articles on the left.

Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)
[Article 5](#)

[Article 6](#)

Welcome to the Article Ranker

You can use the menu on the left to read today's articles.

When you have read all of the articles, you can tell us which ones you like the most by ranking them.

You can click on any of the first five articles to view it.

Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)
[Article 5](#)

[Article 6](#)

You have
read 1 of
today's 5
articles.

Lorem ipsum dolor sit amet, consectetur adipiscing elit

Lorem ipsum dolor sit amet, consectetur adipiscing elit

Etiam ornare nulla in sem pharetra, vel varius magna tempus. Praesent pulvinar eget dolor vitae elementum. Donec id velit at sem gravida tristique non vitae lorem.



Nulla tortor nunc, posuere eu purus eget, ultricies ullamcorper sapien. Duis viverra lectus eget dolor gravida rhoncus. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Fusce molestie, odio at mattis auctor, mauris lectus luctus risus, eget pulvinar tortor erat a est.

Mauris accumsan maximus enim, eleifend consectetur turpis molestie malesuada. Proin vulputate dui non mattis venenatis. Nam ornare sapien eget nibh placerat, faucibus dapibus lacus consectetur.

- Vestibulum viverra viverra ullamcorper
- Aenean ut felis hendrerit, scelerisque est sed, rhoncus sem

Next

You can click the 'Next' button to get the next article.

I have included an article 6, which doesn't exist, to show error handling.

Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)

Something went wrong

As you read the articles you are shown how many you have read.

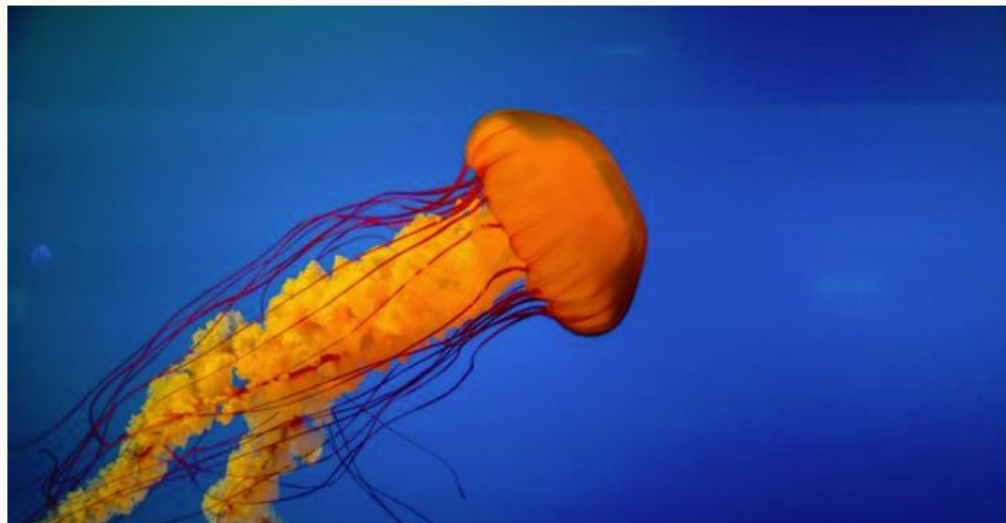
Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)
[Article 5](#)

You have
read 2 of
today's 5
articles.

Praesent bibendum nec velit a fringilla. Nulla facilisi

Nam eu varius magna, vel molestie diam



When you have read all 5 articles, you can rank them.

Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)
[Article 5](#)

You have read all of today's articles, would you like to rank them?

[Rank articles](#)

Maecenas venenatis lorem ut erat dictum, sed varius est porta

Maecenas venenatis lorem ut erat dictum, sed varius est porta

Donec et fermentum elit, in aliquet massa. Suspendisse mollis tristique vulputate. Ut congue, quam quis vol

- Donec commodo ipsum id tellus cursus, vel fermentum elit venenatis
- Nullam pulvinar orci felis, eget maximus ex imperdiet accumsan
- Nulla ut lectus at est fringilla pellentesque
- Duis elementum feugiat lacus non condimentum

Nunc auctor porttitor est, sed laoreet tortor mattis eget.

- Etiam ultrices libero eget orci maximus luctus
- Sed at luctus diam, eget tincidunt arcu

Cras sodales odio et elit scelerisque, at aliquam elit facilisis. Suspendisse erat erat, egestas sed vehicula ar

[Next](#)

Clicking 'Rank articles' gives.

Article Ranker

[Article 1](#)
[Article 2](#)
[Article 3](#)
[Article 4](#)
[Article 5](#)

You have read all of today's articles, would you like to rank them?

[Rank articles](#)

Ranking

Please put the articles into the order you liked them, with the best at the top.

Please use the submit button to send your rankings to us.

Rank Article

- | | | | |
|---|--|--------------------|----------------------|
| 1 | Lorem ipsum dolor sit amet, consectetur adipiscing elit | | Down |
| 2 | Praesent bibendum nec velit a fringilla. Nulla facilisi | Up | Down |
| 3 | Vestibulum posuere orci ullamcorper nisi porta, sit amet tempus nibh porta | Up | Down |
| 4 | Maecenas venenatis lorem ut erat dictum, sed varius est porta | Up | Down |
| 5 | Nulla nibh erat, pharetra at ultricies nec, tincidunt luctus arcu | Up | |

[Submit my rankings](#)

[Submit my rankings to a site that doesn't exist](#)

You can put the articles into order using the up and down buttons and then submit.

Article Ranker

[Article 1](#)

[Article 2](#)

[Article 3](#)

[Article 4](#)

[Article 5](#)

[Article 6](#)

You have read all of today's articles, would you like to rank them?

[Rank articles](#)

Ranking

Please put the articles into the order you liked them, with the best at the top.

Please use the submit button to send your rankings to us.

Rank Article

- | | | | |
|---|--|----|------|
| 1 | Maecenas venenatis lorem ut erat dictum, sed varius est porta | | Down |
| 2 | Vestibulum posuere orci ullamcorper nisi porta, sit amet tempus nibh porta | Up | Down |
| 3 | Praesent bibendum nec velit a fringilla. Nulla facilisi | Up | Down |
| 4 | Nulla nibh erat, pharetra at ultricies nec, tincidunt luctus arcu | Up | Down |
| 5 | Lorem ipsum dolor sit amet, consectetur adipiscing elit | Up | |

Ranking Received - Thanks

I have also included a button to submit to a site that does not exist to show error handling.

Article Ranker

[Article 1](#)

[Article 2](#)

[Article 3](#)

[Article 4](#)

[Article 5](#)

[Article 6](#)

You have read all of today's articles, would you like to rank them?

[Rank articles](#)

Ranking

Please put the articles into the order you liked them, with the best at the top.

Please use the submit button to send your rankings to us.

Rank Article

- | | | | |
|---|--|----|------|
| 1 | Maecenas venenatis lorem ut erat dictum, sed varius est porta | | Down |
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| 4 | Nulla nibh erat, pharetra at ultricies nec, tincidunt luctus arcu | Up | Down |
| 5 | Lorem ipsum dolor sit amet, consectetur adipiscing elit | Up | |

Something went wrong

Techniques

IDE

For this project, I have used the WebStorm IDE from <https://www.jetbrains.com/>.

AWS

I already had set up an AWS server for a university project and installed a LAMP stack. I loaded the JSON files there at <http://3.8.136.10/bbccodetest/article/>.

I found when trying to access them in JavaScript that I got a CORS error because the domain of the HTML was not the same as the domain of the files. I fixed that by changing the httpd config file to add.

```
<Directory "/var/www/html/bbccodetest/article">  
    Header set Access-Control-Allow-Origin "*"   
</Directory>
```

And restarted httpd.

HTML

The main.html file links to

- style.css for styling
- codetest.js for JavaScript

I have laid out a menu column and a content column containing elements with ids to be referenced in the JavaScript.

JavaScript

I have commented each function to explain how it works.

The main techniques were.

- Using XMLHttpRequest to perform a GET request
- Checking the readyState for the asynchronous response
- Checking the HTTP status code to see if it worked
- Loading the response into a JSON object
- Laying out the JSON over HTML elements

- Creating and iterating over arrays

Preloading the next article

The test suggested that when an article was shown, the next article should be preloaded in case the user wants to see that next.

I have managed that but it became quite complex. When I show the next button, it also preloads the next article into an array, but does not show it straight away.

Ranking

I understood ranking to mean that each of the five articles are to be put in order. To do that I put them in a table with up and down buttons. Clicking one of those buttons changes a ranking in the array and then redraws the ranking table. This ensures that two articles cannot have the same rank.

I created a short PHP file on my AWS server, that always returns status 200, and used the JavaScript to do a POST to that.

I have also included a submit button to a non-existent site to show error handling.