Coding exercise - prime tables

Introduction

Write an application that takes numeric input (N) from a user and outputs a multiplication table of (N) prime numbers. Please don't spend too long on this task: it should take a few hours to build a simple solution. The aim is NOT to see how much you can code in a given time, so feel free to spend as much time as you want to highlight your level of programming.

Please put your code onto GitHub and send us the link via email for us to review it.

Instructions

- For the programming language, please use JavaScript.
- You should have a test for a performant prime algorithm that can generate a list of primes.
- We recommend small commits to git so that we can see how you've developed your solution.
- We recommend writing your application with high unit test coverage.
- For the input and output you can use the console, a web page, or something else.
- Please write an algorithm to solve the prime number generation. Do not use a library method to generate your primes.
- You should input a whole number N, where is N is at least 1.
- The application should output an N+1 x N+1 grid of numbers.

Expected primes multiplication table when N is 3

```
|    |  2 |  3 |  5 |
|  2 |  4 |  6 | 10 |
|  3 |  6 |  9 | 15 |
|  5 | 10 | 15 | 25 |
```

Please include a README file that outlines:

- How to run it.
- What you're pleased with.
- What you would do with it if you had more time.

We will evaluate your submission on:

- A solution that comprises a prime algorithm that can generate primes efficiently; think in terms of generating and displaying a primes multiplication table where N is at least 10.
- If you have time, we would look favourably on a larger N, but keep in mind we evaluate on more than just a large N (see other bullet points), so we may prefer a solution where N=10 over a solution submitted for N=100.
- Code that is easy to read and understand by others unfamiliar with it and that clearly communicates what the algorithm is doing.
- A simple and extensible solution, e.g. could you plug-in another algorithm easily?
- Code that is easily maintainable.
- The formatting of the output.

After completing the technical test, please don’t make changes on the same branch. Instead, branch out and carry on any improvements after submitting the test.

Thanks in advance for you time. We look forward to reviewing your solution!