

Continuous Integration Tool -- JENKINS: Jenkins is a continuous integration tool that is completely free to use, it has a very complete and easy to understand documentation. It has a well renowned reputation, and a massive user base. Easy to use interface, and an easier to download platform. It has been around for almost 11 years. To get started, you go to their website and follow their roadmap of how to download and use their ci tool.

<https://www.jenkins.io/>

Real Time Error Monitoring Tool -- SEMATEXT: Sematext is a monitoring tool that allows a single page monitoring experience. It has great support for popular frameworks like react, angular and ember. It has had notable customers like Facebook, Instagram, Walmart, and several other global companies. Has been around for a little over 10 years.

https://sematext.com/?t=c%3A14491337976%2Cq%3A129566705231%2CI%3A9029855%2Cm%3Ap%2Cn%3Ag%2Cd%3Ac%2Cdm%3A%2Ccr%3A543045533933%2Ck%3Asematext&utm_term=sematext&utm_campaign=S_Brand%20Protect%20%28USA%29&utm_source=adwords&utm_medium=ppc&hsa_acc=7389392572&hsa_cam=11244574982&hsa_grp=129566705231&hsa_ad=543045533933&hsa_src=g&hsa_tgt=kwd-314048221358&hsa_kw=sematext&hsa_mt=p&hsa_net=adwords&hsa_ver=3&gclid=CjwKCAjw49qKBhAoEiwAHQVTo62di7_3l0hL2w4hoslh41x02HCJG2caxRR4AMXanxow6JsOq8WYHRoCUGcQAvD_BwE

Name of Array	extraLargeArray	largeArray	mediumArray	smallArray	tinyArray
Insert:	1.0325501 s	8.7454 ms	177 µs	46.3 µs	66.9 µs
Append:	2.8427 ms	528.3 µs	140.9 µs	102.9 µs	86 µsf

Based on the table above we can see that the length of the parameter given inside of the two functions have decreased. But at what intervals? With the extra large array starting at 100,000 and the large array going down to 10,000 and so on and so forth. With each decreasing value, the time to get the function does also gets smaller. I am not gonna lie, I don't know at what interval these scale down. However, the append function scales down better, and more consistently. It looks like it goes down more consistently.