

GitLab CI/CD

GitLab continuous integration is like most other tools used for CI and CD with its standard features of being able to choose different pipelines, different branches for deployment, viewing the logs on the application, and having automatic deployments. It is also free to use but you can upgrade your account for more features. Some of said features that will come in handy are Browser and Load performance testing to determine the browser and server performance impact of pending code changes, Offers an API for deeper integrations in software projects, and container and dependency scanning to analyze the docker containers and dependencies for known vulnerabilities. They also have a youtube video linked on their docs that will help you get started on your deployment/integration. <https://docs.gitlab.com/ee/ci/> GitLab CI/CD was integrated into the main GitLab software with the GitLab 8.0 release in September 2015. With time it has become more popular with roughly about 10,300+ companies using GitLab. They have about 3.97% of the market share with the most profitable company using GitLab being QA Limited from the UK making 200m-1000m pounds. <https://enlyft.com/tech/products/gitlab>

On <https://github.com/gitlabhq/gitlabhq>, we can see the code, I presume to be of GitLab since it is open source. You can see that they constantly make edits and try to improve it since it was edited yesterday on 10/14/2021.

Raygun

Raygun is a great real time error reporting tool that is very affordable. They start at \$4-12 per month. They have Support for all major programming languages and frameworks, including .NET, JavaScript, PHP, Ruby, and more. Some features are you are able to see the full stack trace, environment, browser, version, class name, and host. You can also monitor your web and mobile apps for issues customers experience and view their OS, browser, page load speeds all to help improve the customer experience and get you more customers. They do not have the most detailed instructions on their docs, however they do seem to have some videos on youtube.

<https://www.youtube.com/channel/UCCkA5rpXGgU8v30h35TqSzQ>

On <https://github.com/MindscapeHQ/raygun4js>, we can see the code, I presume to be of Raygun since it is open source. You can see that they constantly make edits and try to improve it since it was edited 14 hours ago on 10/15/2021.

Tiny Array	Small Array	Medium Array	Large Array	XL Array
Insert:1.8 us	Insert:6.6 us	Insert:1.1511 ms	Insert:8.2331 ms	Insert:969.9689 ms
Append:1.6 us	Append:5.4 us	Append:277.5 us	Append:399.1 us	Append:2.8487 ms

The pattern is that as the size of the array increases so does the time it takes to execute the code. Both functions scale linearly because their time increases as the size of the array increases. The append function scales a lot better because it does not have to return the new array, i can tell because after multiple runs, it always performs better than the other one.