Alternative Tools Research

1. Continuous Integration (CI) : AWS CodePipeline

A. **Notable Features:** This is an alternative software for CI instead of CircleCI. It allows us to automate release pipelines for quick updates for our app. When a new piece of code is updated or pushed to github or any code repository, AWS CodePipeline automates the build , test and deploy process. Since it can be integrated with GitHub, it takes away the hassle of manually pushing code for integration.
B. **Getting Started:** The link for AWS CodePipeline is here: https://docs.aws.amazon.com/codepipeline/latest/userguide/welcome.html
From the documentation, it can be said the the instructions are clear, but very long. The user guide is documented well enough and is easy to set up. There is a text-based tutorials under 'Tutorials' section. It is long, but easy to navigate. You can sign up at console.aws.amazon.com to test different aspects of the tutorials.
C. **Maturity:** This tool was released by Amazon in 2015 and since then it has been quite popular around the world. It is supported by Amazon, one of the largest companies in the world, and has good market share as it is being used by many companies in the world.

2. Real Time Error Monitoring: Raygun
A. Notable Features: Saygun is like Rollbar which allows us to log and see our errors in our code. It is realtime error handling software where you can see the error as soon as you update and push to your code. It can be integrated with GitHub which makes a smooth and hassle-free error handling experience. You can see which error has the largest impact. You can also see the environment, browser, operating

systems, full stack trace and see the commit which caused the error.

B. **Getting Started**: Raygun can integrate code in many different programming languages. The documentation/project guides are easy to follow. It specifies what exactly is needed for your specific language to integrate the Raygun software. The documentation is here:
https://raygun.com/documentation/

C. **Maturity:** Raygun has many customers. The users are well over one hundred thousands . It is used by many software companies such as CocaCola, Microsofts, JustGiving etc. It is very active in updates and usage throughout the world.