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CSD380 Module 3.1 Discussion

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Version Control

Hello,

For the Module 3 discussion I have found both GitLab (GitLab Link: [Try GitLab Ultimate for free | GitLab](https://about.gitlab.com/free-trial/devsecops/?utm_term=bitbucket&_bt&_bk=bitbucket&_bm=p&_bn=o&_bg=1316117717314899&msclkid=2387e4e937a015019643827ba807151a)) and Bitbucket (Bitbucket Link: [Bitbucket | Git solution for teams using Jira](https://bitbucket.org/)) as alternative version control options in place of GitHub.

All version control options are viable to be used in projects with features crossing over between all platforms. GitLab is an “all-in-one product for the DevOps lifecycle” that include planning, code management, deployment with packaging, and as well as monitoring (stack.tools). GitLab offers things that other options don’t like automation for every step, “GitLab Duo” as an AI code assistant, tailored workflows for projects, its scalable all the way to enterprise level developments, has a container registry, personalized code review, specialized issue tracking options for managing projects, and integrated security scanning (marker.io). GitLab is very comprehensive but like the others, has premium pricing for the options you may need depending on the size of the project. That positive is also a negative when looking at small projects, it is overkill and may not be fiscally realistic for small projects.

The other option of version control is Bitbucket that is sometime that is part of the Atlassian Platform. Bitbucket can handle both Git and Mercurial repositories. In Git, every user has their own private copy. A Mercurial repository has each user pull from a centralized copy of the repository then pushing back. BitBucket is built to be used with Jira and Confluence from Atlassian. BitBucket features have integrated issue tracking with Jira, private code repositories, analytics for code to provide performance metrics, and advanced branch permissions for code review and security (marker.io). Its free option is very restricted and is not an ideal solution for open-source projects. Some other disadvantages are no community features, no AI assistance, and only integrates with Atlassian platforms.

From reviewing all these items, I would stick with using GitHub for all things not meant for profit, and only using GitLab if an idea takes off and becomes a fiscal opportunity that would show returns to offset costs. In no way would I feel using Bitbucket to be worth it unless the group or company is already so integrated with Atlassian platforms that it is the only viable option as I would not want to restrict options later and would want it scalable to down the road.

Thank you for your time,

Jeremiah K.

References:

GitHub vs GitLab vs BitBucket: Key Differences & Feature Comparison. (n.d.). <https://marker.io/blog/github-vs-gitlab-vs-bitbucket>

GitHub vs GitLab vs Bitbucket: Functionality Comparison. (n.d.). <https://stack.tools/blog/github-vs-gitlab-vs-bitbucket>