Recommended hardware resources for running CodeQL

Recommended specifications (RAM, CPU cores, and disk) for running CodeQL analysis on self-hosted machines, based on the size of your codebase.

Code scanning is available for all public repositories on GitHub.com. Code scanning is also available for private repositories owned by organizations that use GitHub Enterprise Cloud and have a license for GitHub Advanced Security. For more information, see "About GitHub Advanced Security."

You can configure CodeQL on GitHub Actions or on an external CI system. CodeQL is fully compatible with GitHub-hosted runners on GitHub Actions.

If you're using an external CI system, or self-hosted runners on GitHub Actions for private repositories, you're responsible for configuring your own hardware. The optimal hardware configuration for running CodeQL may vary based on the size and complexity of your codebase, the programming languages and build systems being used, and your CI workflow configuration.

The table below provides recommended hardware specifications for running CodeQL analysis, based on the size of your codebase. Use these as a starting point for determining your choice of hardware or virtual machine. A machine with greater resources may improve analysis performance, but may also be more expensive to maintain.

Codebase size	RAM	CPU
Small (<100 K lines of code)	8 GB or higher	2 cores
Medium (100 K to 1 M lines of code)	16 GB or higher	4 or 8 cores
Large (>1 M lines of code)	64 GB or higher	8 cores

For all codebase sizes, we recommend using an SSD with 14 GB or more of disk space. There must be enough disk space to check out and build your code, plus additional space for data produced by CodeQL.