

What is AWS CodeBuild?

- AWS CodeBuild is a fully managed build service in the cloud.
- CodeBuild compiles your source code, runs unit tests, and produces artifacts that are ready to deploy.
- It provides prepackaged build environments for popular programming languages and build tools such as Apache Maven, Gradle, and more.
- CodeBuild scales automatically to meet peak build requests.

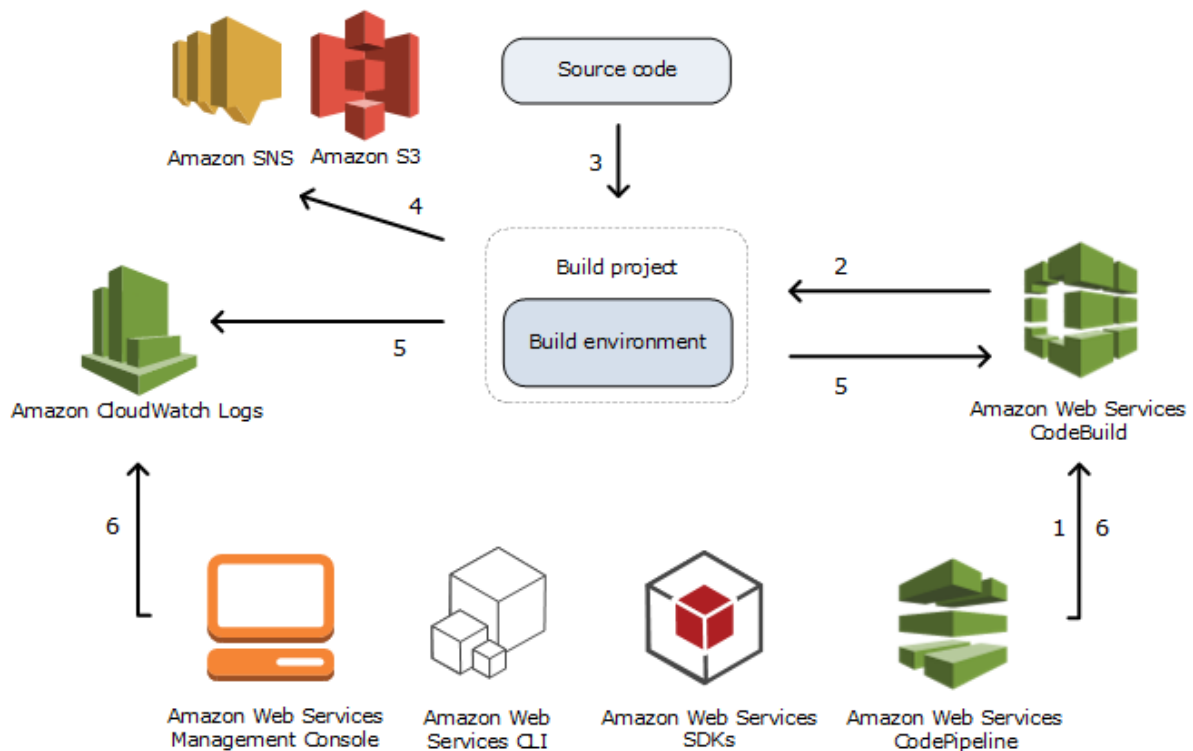
Benefits:

- **Fully managed** – CodeBuild eliminates the need to set up, patch, update, and manage your own build servers.
- **On demand** – CodeBuild scales on demand to meet your build needs. You pay only for the number of build minutes you consume.
- **Out of the box** – CodeBuild provides preconfigured build environments for the most popular programming languages. All you need to do is point to your build script to start your first build.

Features of AWS CodeBuild

1. Pre-configured Build Environments:
2. Custom Build Environments:
3. Integration with Source Control Systems:
4. Build Logs and Monitoring:
5. Build Reports:
6. Build Notifications:
7. Environment Variables:

How CodeBuild works?



1. As input, you must provide CodeBuild with a build project. A *build project* includes information about how to run a build, including where to get the source code, which build environment to use, which build commands to run, and where to store the build output. A *build environment* represents a combination of operating system, programming language runtime, and tools that CodeBuild uses to run a build. For more information, see:
 - a. Create a build project
 - b. Build environment reference
2. CodeBuild uses the build project to create the build environment.
3. CodeBuild downloads the source code into the build environment and then uses the build specification (*buildspec*), as defined in the build project or included directly in the source code. A *buildspec* is a collection of build commands and related settings, in YAML format, that CodeBuild uses to run a build. For more information, see the Buildspec reference.
4. If there is any build output, the build environment uploads its output to an S3 bucket. The build environment can also perform tasks that you specify in the *buildspec* (for example, sending build notifications to an Amazon SNS topic). For an example, see Build notifications sample.

5. While the build is running, the build environment sends information to CodeBuild and Amazon CloudWatch Logs.
6. While the build is running, you can use the AWS CodeBuild console, AWS CLI, or AWS SDKs to get summarized build information from CodeBuild and detailed build information from Amazon CloudWatch Logs. If you use AWS CodePipeline to run builds, you can get limited build information from CodePipeline.