**Package an App with CodeBuild**

Explore a core element of DevOps CI/CD; building and compiling.

You use **CodeCommit** and **CodeArtifact** to save copies of your web app's code and its dependencies, and now **CodeBuild** is here to help you make the app ready for the world to see!

1. Set up s3 bucket- This S3 bucket will later store a file that gets created in the build process

**What is the build process? What's the file that gets created?**  
The build process will take your web app's code and translate it into machine code that servers (like computers or EC2 instances) can understand and run.

Building includes steps like compiling the code, running tests, and packaging the application.

Build artifacts are files that get created from this build process.

### What does buildspec.yml do?

'I created a buildspec.yml file in my project because'...

### What were the first two phases in your buildspec.yml file?

Today you've learnt how to:

1. 🪣 **Set up an S3 bucket:** You created an S3 bucket to store the WAR file produced by CodeBuild. This serves as the destination for your build outputs, ensuring they are stored securely and reliably on AWS.
2. 🏗️ **Create a CodeBuild build project:** You configured a new build project in AWS CodeBuild. By selecting AWS CodeCommit as the source and configuring the environment with specific settings like the Amazon Linux image and a new service role, you prepared your build system to handle the project's requirements efficiently.
3. 📂 **Create your web app's buildspec.yml file:** In the Cloud9 IDE, you created a buildspec.yml file in your project repository. This file outlines the commands and phases that CodeBuild will execute during the build, such as installing dependencies, compiling the code, and packaging the output into a WAR file.
4. 💂‍♀️ **Modify the IAM role:** You enhanced the auto-generated IAM role by attaching the codeartifact-nextwork-consumer-policy. This modification grants CodeBuild the necessary permissions to interact with AWS CodeArtifact and access the packages stored inside.
5. 🧪 **Test the build project:** Finally, you initiated a test build in CodeBuild to verify the setup. After the build completed successfully, you checked the S3 bucket to verify a packaged WAR file was created and stored correctly. Yay - the entire build process is configured and functioning as expected!