**Steps to Automate the CI/CD Pipeline in AWS**

1. **Setup AWS Infrastructure with IaC (CloudFormation)**:
   * Create a CloudFormation template to provision the necessary AWS resources such as CodeCommit, CodeBuild, CodePipeline, EC2 instances for Jenkins and SonarQube, and ECR for Docker images.
2. **Setup CodeCommit Repository**:
   * Create a repository in AWS CodeCommit to store your source code.
   * Push your source code to the CodeCommit repository.
3. **Setup Jenkins on AWS EC2**:
   * Launch an EC2 instance and install Jenkins.
   * Configure Jenkins with the necessary plugins (e.g., Git, AWS CodeBuild, Docker, SonarQube).
   * Create a Jenkins job to pull code from CodeCommit, perform build and test operations, and trigger SonarQube for code analysis.
4. **Setup SonarQube on AWS EC2**:
   * Launch an EC2 instance and install SonarQube.
   * Configure SonarQube for static code analysis.
5. **Configure AWS CodeBuild**:
   * Create a CodeBuild project to build Docker images.
   * Integrate CodeBuild with Jenkins to trigger builds upon code changes.
6. **Setup AWS CodePipeline**:
   * Create a CodePipeline to automate the end-to-end process from code changes to deployment.
   * Integrate CodePipeline with CodeCommit, CodeBuild, and Jenkins.
7. **Deploy Docker Containers**:
   * Push the built Docker images to Amazon ECR (Elastic Container Registry).
   * Deploy the Docker containers on ECS (Elastic Container Service) or EKS (Elastic Kubernetes Service).
8. **Automate Infrastructure with CloudFormation**:
   * Use CloudFormation templates to automate the setup of all the above AWS services and resources.

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**Provisioning Infrastructure with AWS CloudFormation**

A diagram of a company's logo

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