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**Experiment 2**

**Aim**: To Build Your Application using AWS CodeBuild and Deploy on S3 / SEBS using AWS

CodePipeline, deploy Sample Application on EC2 instance using AWS CodeDeploy.

**Theory:**

Continuous deployment allows you to deploy revisions to a production environment automatically

without explicit approval from a developer, making the entire software release process automated.

You will create the pipeline using AWS CodePipeline, a service that builds, tests, and deploys your

code every time there is a code change. You will use your GitHub account, an Amazon Simple

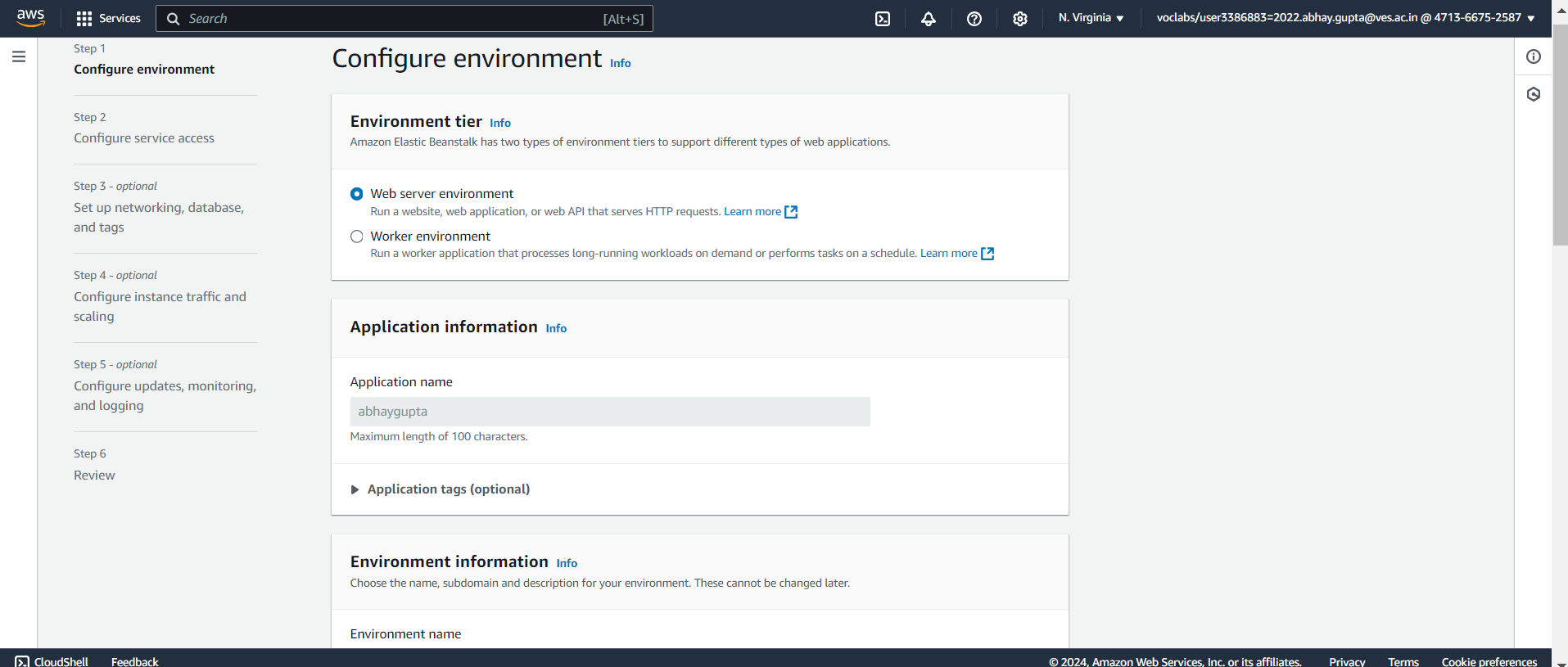
Storage Service (S3) bucket, or an AWS CodeCommit repository as the source location for the

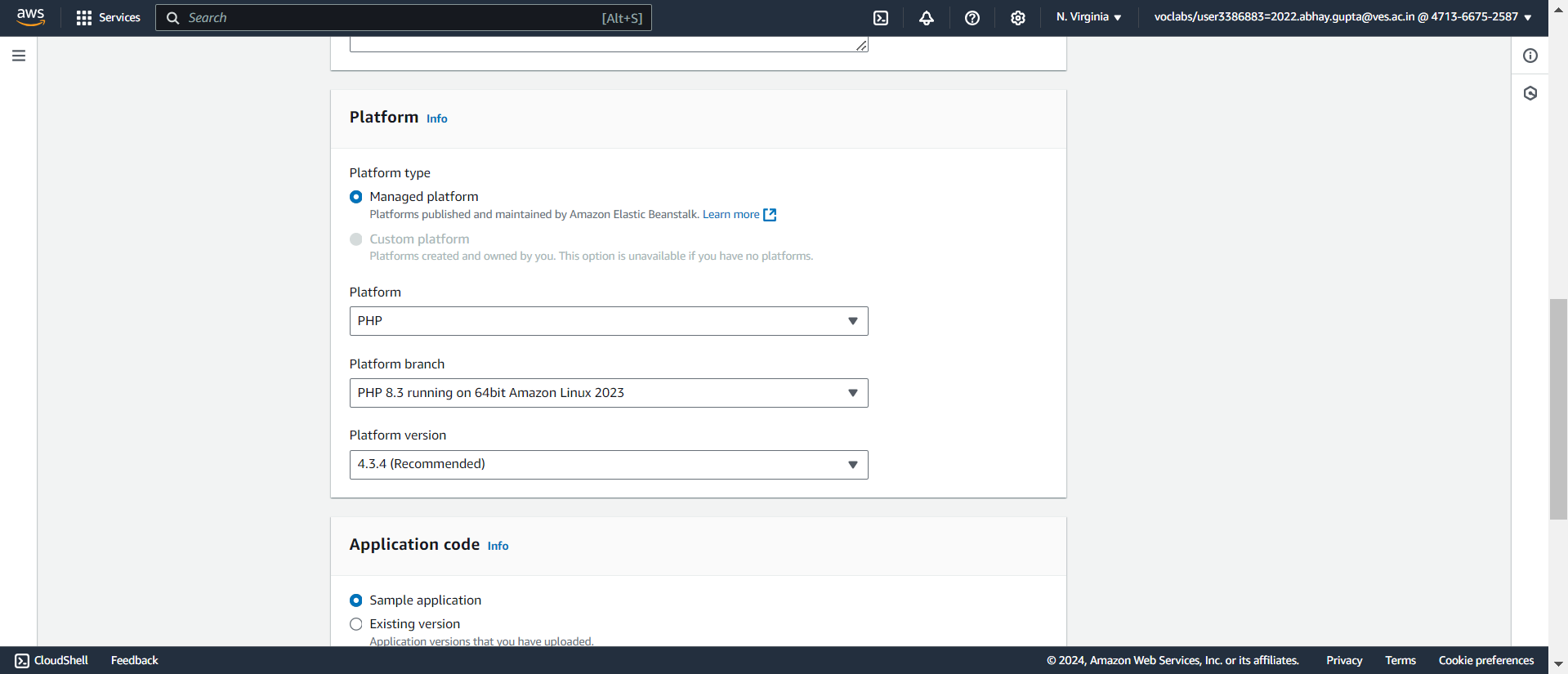
sample app’s code. You will also use AWS Elastic Beanstalk as the deployment target for the

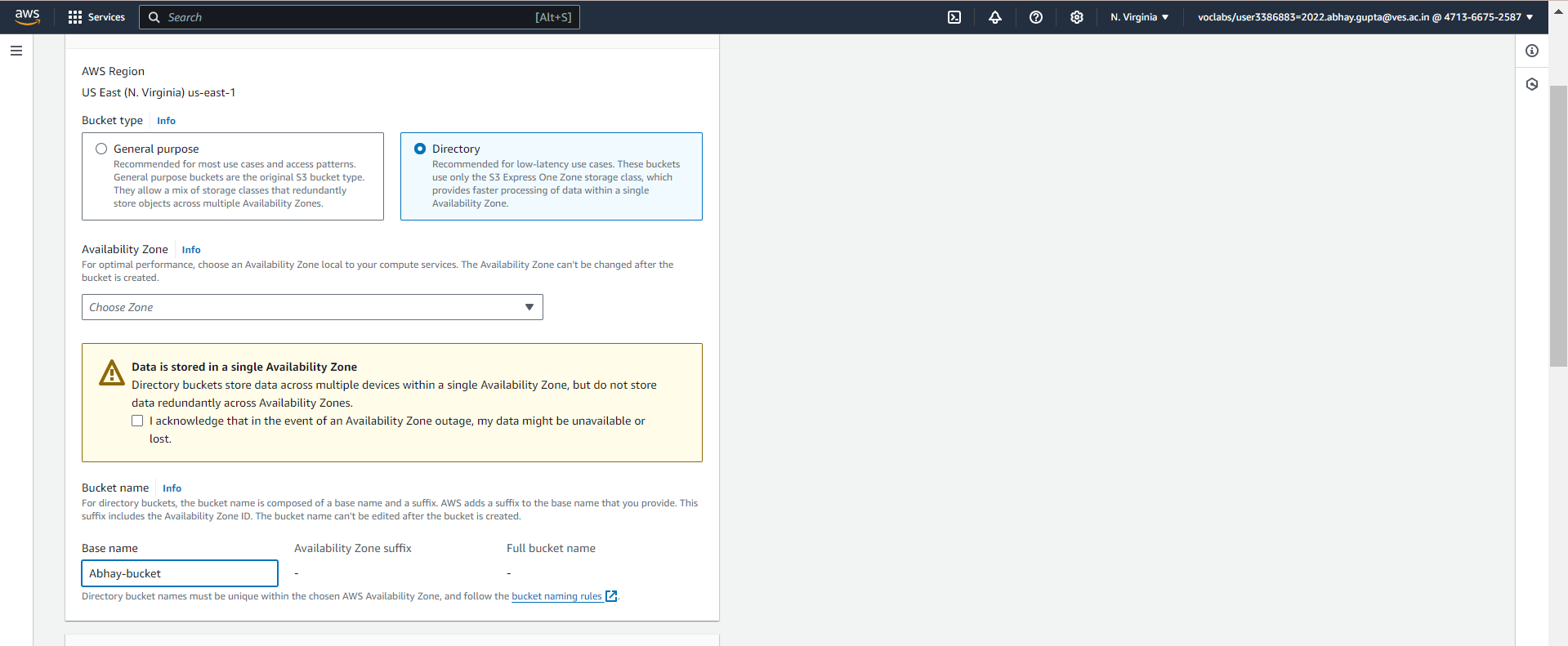
sample app. Your completed pipeline will be able to detect changes made to the source repository

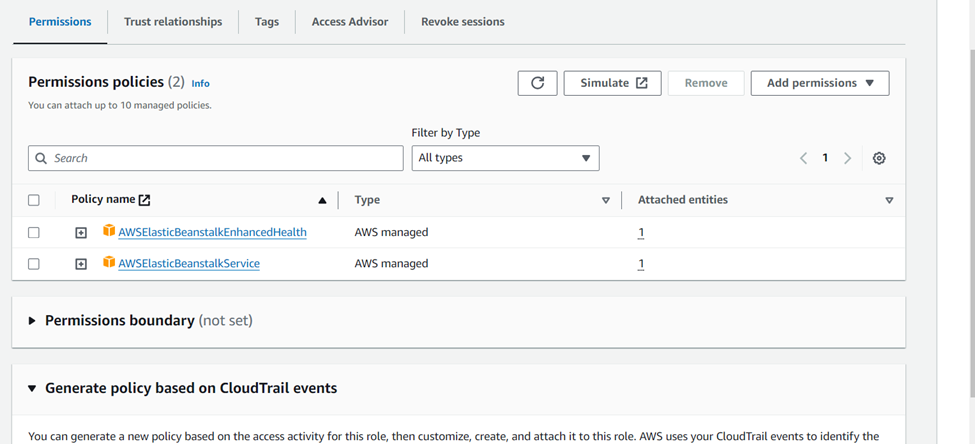
containing the sample app and then automatically update your live sample app.

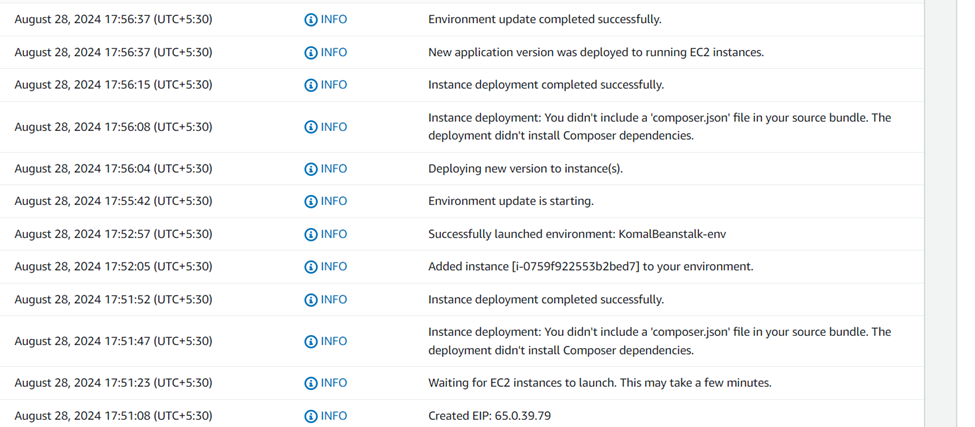
**Output:**

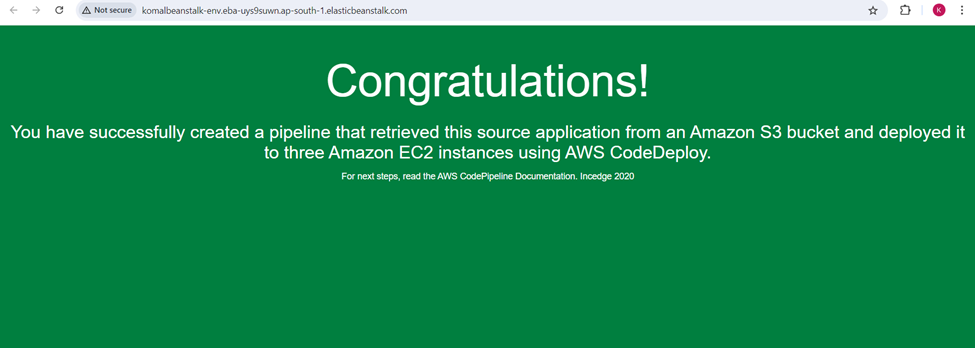












**Conclusion:**

Building and deploying an application using AWS CodeBuild, CodePipeline, and CodeDeploy demonstrates the power of automated CI/CD in the cloud. AWS CodeBuild compiles code, runs tests, and prepares software packages, while CodePipeline automates the release process, ensuring faster and consistent deployments. Deploying to S3 or SEBS enables scalable hosting of static and serverless applications, and CodeDeploy manages the deployment to EC2 instances, ensuring minimal downtime and easy rollback. This streamlined approach enhances development efficiency, reduces errors, and accelerates application delivery, showcasing the benefits of cloud-based automation and infrastructure management.