



# The AWS Developer Tools

Modern DevOps For Your Applications



**DEVELOPRENEUR**  
BUILDING BETTER DEVELOPERS

# Agenda

- The AWS Developer Tools
- CodeStar
- CodeCommit
- CodeBuild
- CodeDeploy
- CodePipeline
- CodeArtifact





The AWS  
Tools

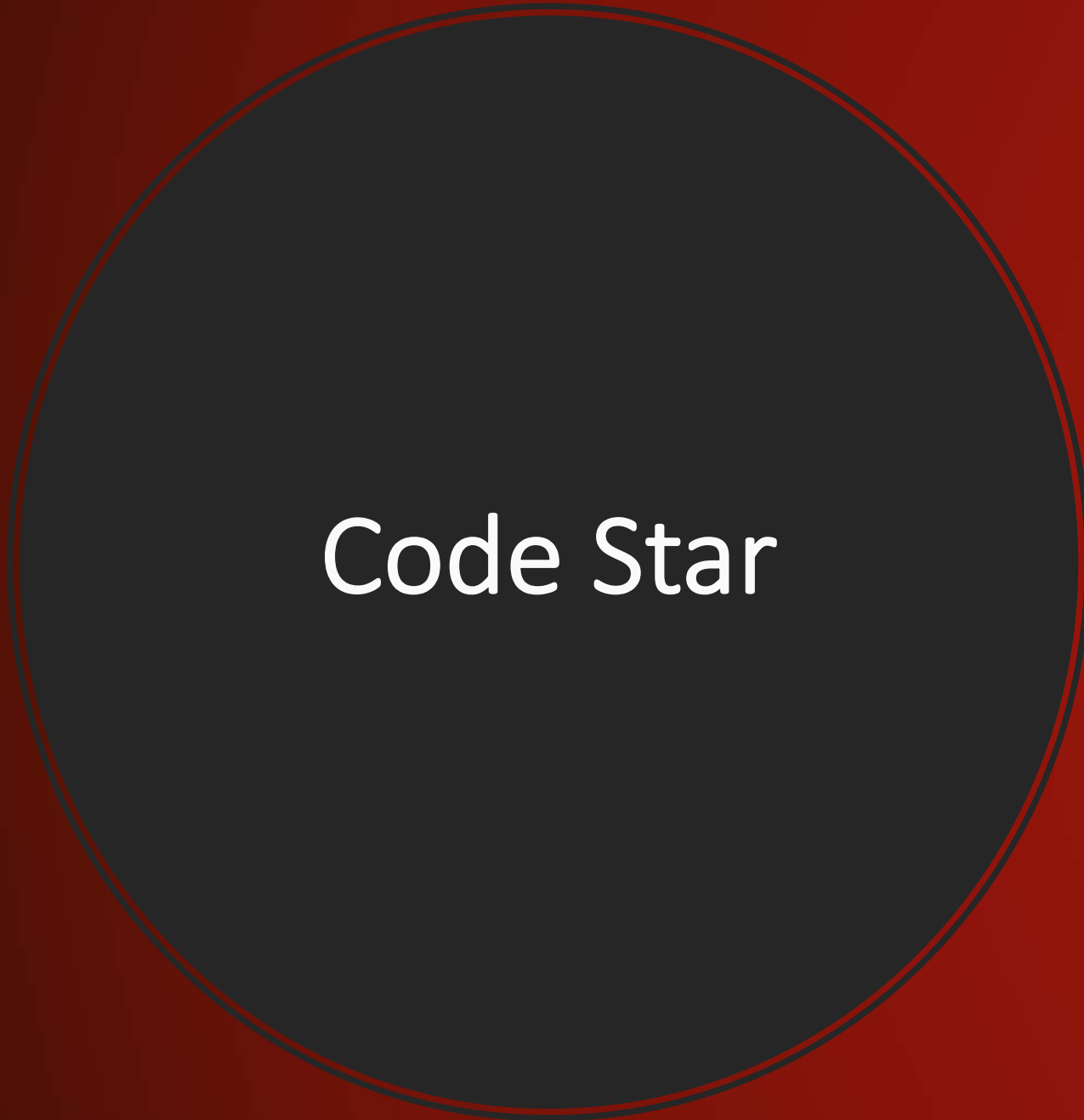




# Aws Development Tools

- Provide full-featured modern development tools
- Dev-Ops tools and management
- Some free tier. Most low cost outside of deployment
- Secure and Command Line enabled





AWS CodeStar - GoalTracker

**Important:** You must connect to your project's repository before you can start working on the code. [I have already done this](#) [Connect Tools](#)

**Welcome to GoalTracker!**  
Let us help you get started.

- [Learn about AWS CodeStar](#)
- [Setup your team](#)
- [Configure issue tracking](#)

**Team wiki tile**  
Edit this tile to save your own project links, code samples and notes to share with your team. You can use [markdown](#) to format your text.  
Some other things to try in your project...

- [Access your application](#)
- [Read "What do I do next?" in README.md in project source repository](#)
- [Add team members](#)
- [Setup issue tracking \(under "Extensions"\)](#)
- [Customize project dashboard](#)
- [View AWS CodeStar documentation](#)
- [Visit the AWS CodeStar Forum](#)

**Commit history: goaltracker** [master](#)

- [Initial commit of sample code made during project creation in AWS CodeStar](#)  
AWS CodeStar committed 8 minutes ago [Details](#)

[Connect](#) [AWS CodeCommit details](#)

**Application activity**  
CPU utilization [Amazon CloudWatch](#)

**Application endpoints**  
[http://ec2-34-201-64-64.compute-1.amazonaws.com](#)

**Continuous deployment** [AWS CodePipeline](#) [Release change](#)

- Source**  
AD5200T, 8:00:28 AM  
[ApplicationSource CodeCommit](#)  
[Details](#)
- Commit history**
- Application**  
AD5200T, 8:00:45 AM  
[DevOps CodeDeploy](#)  
[Details](#)
- Deploy history** [Endpoint\(1\)](#)

[AWS CodePipeline details](#)

# Code Star

- Quick way to launch a dev environment
- Includes building out version control, pipelines, etc. for a quick start
- Supports dozens of environments and languages.





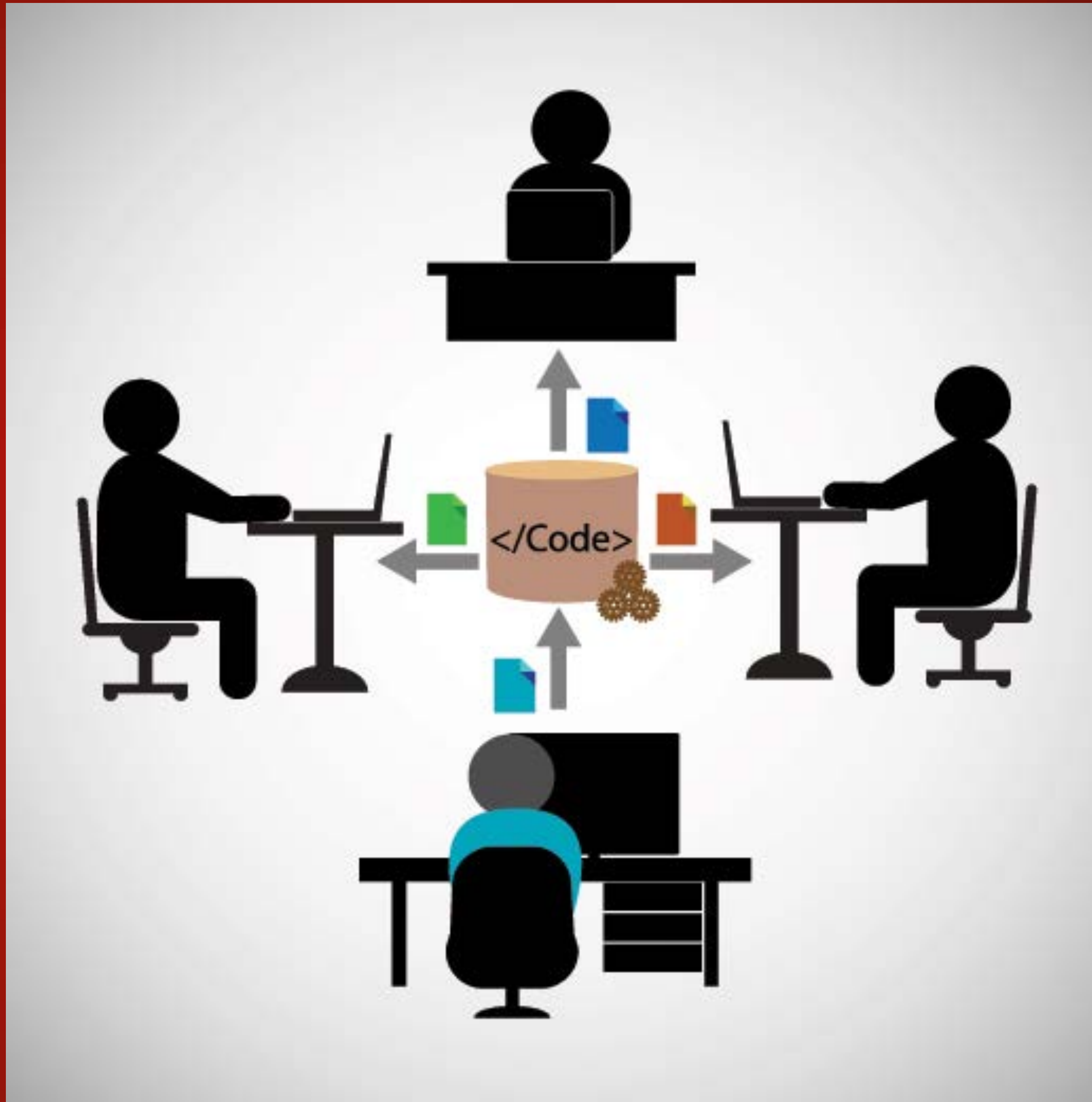
**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS



**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS

# Working Session

# Code Commit

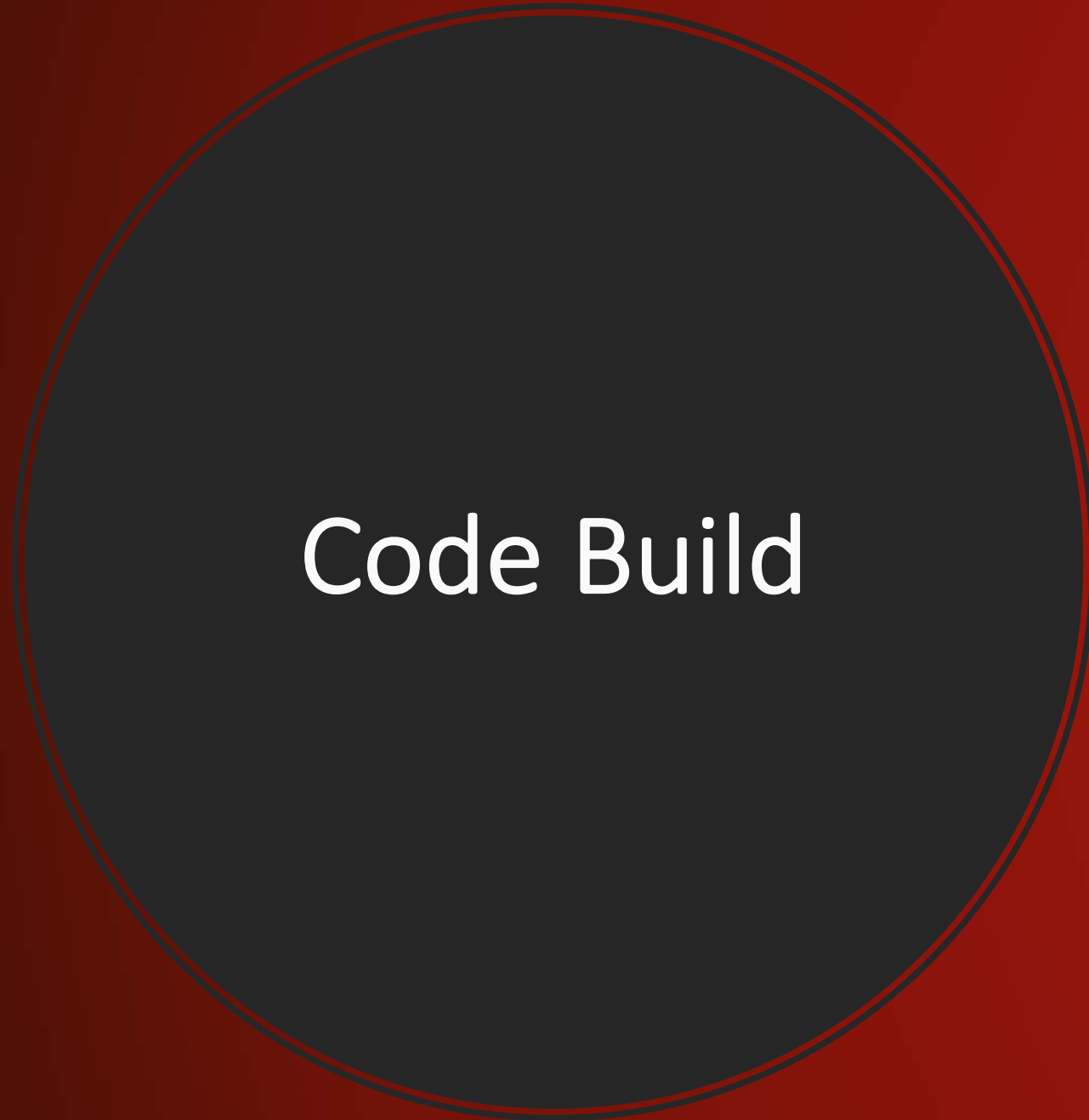




# Code Commit

- Full-featured git version control
- Free tier – unlimited repositories, 50GB/mo storage, 10,000 git requests/mo up to 5 users
- Paid \$1/mo per user past 5, 10GB storage per user, 2000 requests per user
- Highly secure and has separate credentials





aws Services Resource Groups

Developer Tools > CodeBuild > Build projects > rfpcreator

### rfpcreator

Notify Share Edit Delete build project Start build

#### Configuration

Source provider AWS CodePipeline	Primary repository -	Artifacts upload location -	Build badge Disabled
-------------------------------------	-------------------------	--------------------------------	-------------------------

Build history Build details Build triggers Metrics

#### Build history

Stop build View artifacts View logs Delete builds Retry build

Build run	Status	Build number	Source version	Submitter	Duration	Completed
<input type="checkbox"/> rfpcreator:ae3ba636-c41f-45de-a55e-06e3192c8a05	✔ Succeeded	3	<a href="#">arn:aws:s3::aws-codestar-us-east-1-95611445984-0-rfpcreator-pipe/rfpcreator-Pipeline/rfpcreator/ll5xlW</a>	codepipeline/rfpcreator-Pipeline	31 seconds	12 days ago
<input type="checkbox"/> rfpcreator:df6d933c-2734-43bc-908f-dfb3fe146b68	✔ Succeeded	2	<a href="#">arn:aws:s3::aws-codestar-us-east-1-95611445984-0-rfpcreator-pipe/rfpcreator-Pipeline/rfpcreator/nkWyvd5</a>	codepipeline/rfpcreator-Pipeline	38 seconds	19 days ago



# Code Build

- Fully Managed CI tool
- Compiles code, runs tests
- Builds software packages
- Easy to shift/deploy versions
- Support for Lambda and triggers



# Code Deploy

The screenshot shows the AWS CodeDeploy console interface. At the top, there's a navigation bar with the AWS logo, 'Services', 'Resource Groups', and user information. Below that, a breadcrumb trail reads 'Developer Tools > CodeDeploy > Deployments'. The main content area is titled 'Deployment history' and includes a search bar, a refresh button, and several action buttons: 'View details', 'Actions', 'Copy deployment', and 'Retry deployment'. A table below lists four deployment records with columns for Deployment Id, Status, Deployment type, Compute platform, Application, Deployment group, Revision location, Initiating event, and Start time.

Deployment Id	Status	Deployment type	Compute platform	Application	Deployment group	Revision location	Initiating event	Start time
<a href="#">d-JHQQH75H5</a>	<span>✔ Succeeded</span>	In-place	EC2/On-premises	<a href="#">dpdemo</a>	<a href="#">dpdemo-Env</a>	<a href="#">s3://aws-cod...</a>	User action	Jul 20, 2020 9:19 PM (UTC-5:00)
<a href="#">d-J54OXSC5</a>	<span>✘ Failed</span>	In-place	EC2/On-premises	<a href="#">rfpcreator</a>	<a href="#">rfpcreator-Env</a>	<a href="#">s3://aws-cod...</a>	User action	Jul 16, 2020 3:41 PM (UTC-5:00)
<a href="#">d-NOBOD18A5</a>	<span>✔ Succeeded</span>	In-place	EC2/On-premises	<a href="#">rfpcreator</a>	<a href="#">rfpcreator-Env</a>	<a href="#">s3://aws-cod...</a>	User action	Jul 10, 2020 8:36 AM (UTC-5:00)
<a href="#">d-9HC8S7K95</a>	<span>✔ Succeeded</span>	In-place	EC2/On-premises	<a href="#">rfpcreator</a>	<a href="#">rfpcreator-Env</a>	<a href="#">s3://aws-cod...</a>	User action	Jul 9, 2020 8:00 AM (UTC-5:00)



# Code Deploy

- “AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Fargate, AWS Lambda, and your on-premises servers.”
- Automate deployments and triggers



# Code Pipeline

The screenshot displays the AWS CodePipeline console interface. At the top, the AWS logo and navigation menus for 'Services' and 'Resource Groups' are visible. The user's profile 'rbroadhead @ rb-sns' and the region 'N. Virginia' are shown in the top right. The left sidebar contains a 'Developer Tools' menu with 'CodePipeline' selected, and sub-items for Source, Artifacts, Build, Deploy, Pipeline, and Settings. The main content area shows the 'dpdemo-Pipeline' details. It includes a breadcrumb trail: 'Developer Tools > CodePipeline > Pipelines > dpdemo-Pipeline'. Action buttons for 'Notify', 'Edit', 'Stop execution', 'Clone pipeline', and 'Release change' are present. The pipeline execution is shown as successful, with a green checkmark and the text 'Succeeded'. The pipeline execution ID is '12b71f93-5192-4bf6-b4e6-fbf8d036b9f3'. The first stage is 'Source', which succeeded 8 days ago. The second stage is 'Build', which also succeeded 8 days ago. A 'Disable transition' button is located between the two stages. On the right side, there are three green checkmarks in a vertical column, indicating the success of the pipeline stages.



# Code Pipeline

- Continuous Delivery
- Integrates with other services like Code Commit
- Build and deploy as needed, to multiple targets
- Lambda integration for triggers and notifications



# Aws Services



CODE STAR



CODE COMMIT



CODE ARTIFACTS



CODE BUILD



CODE DEPLOY





# Code Artifact

**Developer Tools**  
**CodeArtifact**

- ▶ Source • CodeCommit
- ▼ Artifacts • CodeArtifact
  - Getting started
  - Domains
  - Repositories
- ▶ Build • CodeBuild
- ▶ Deploy • CodeDeploy
- ▶ Pipeline • CodePipeline
- ▶ Settings

Go to resource  
Feedback

## Developer Tools

# AWS CodeArtifact

## Secure, scalable, and cost-effective artifact management

AWS CodeArtifact is a fully managed artifact repository service that makes it easy for organizations of any size to securely store, publish, and share software packages used in their software development process.

**Create AWS CodeArtifact repository**

Start with AWS CodeArtifact by creating your first repository to securely store, publish, and share software packages.

[Create repository](#)

### Pricing (US)

<b>Storage</b> First 2 GB-month stored across all regions is free.	\$0.05 per GB-month thereafter.
<b>Requests</b> First 100,000 requests across all regions are free.	\$0.05 per 10,000 requests thereafter.
<b>Data transfer</b> <a href="#">Learn more about AWS CodeArtifact data transfer pricing.</a>	

### Getting started

[What is AWS CodeArtifact?](#)

### How it works

Image too small? [Expand](#)



# Code Artifact

- Store artifacts like libraries and other common binaries
- Cost: 2GB-month free then \$0.05 GB-month
- Requests: First 100K free then \$0.05 per 10K requests
- Works with a broad range of tools like Maven, Gradle, Yarn, pip, etc.







**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS



**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS

# Working Session

# What We Learned

- AWS has provided a large number of development tools
- These are integrated and often provide free tier levels of access
- There is a GUI to help with these as well as command line options (not shown :) )







**DEVELPRENEUR**

BUILDING BETTER DEVELOPERS

Questions and  
Comments?



**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS

# Thank You!

I appreciate your time and would love to discuss any of this further. You can send questions, comments and suggestions through any of these methods.

- [info@develpreneur.com](mailto:info@develpreneur.com)
- <https://develpreneur.com/contact-us>
- @develpreneur
- <https://www.facebook.com/Develpreneur>

Our goal is making every developer better.



**DEVELPRENEUR**  
BUILDING BETTER DEVELOPERS