

AWS Task-5

Task Description:

Deploy a simple web application using AWS code commit, code build and deploy & access via browser and automate via codepipeline.

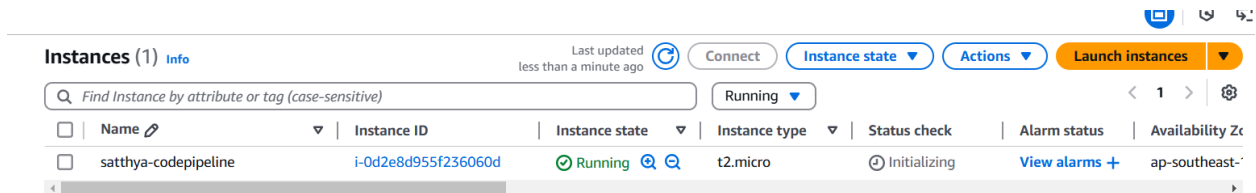
Techstacks needs to be used :

AWS CI-CD (CodeCommit, CodeBuild, CodeDeploy, CodePipeline).

Step1

Create an EC2 instance

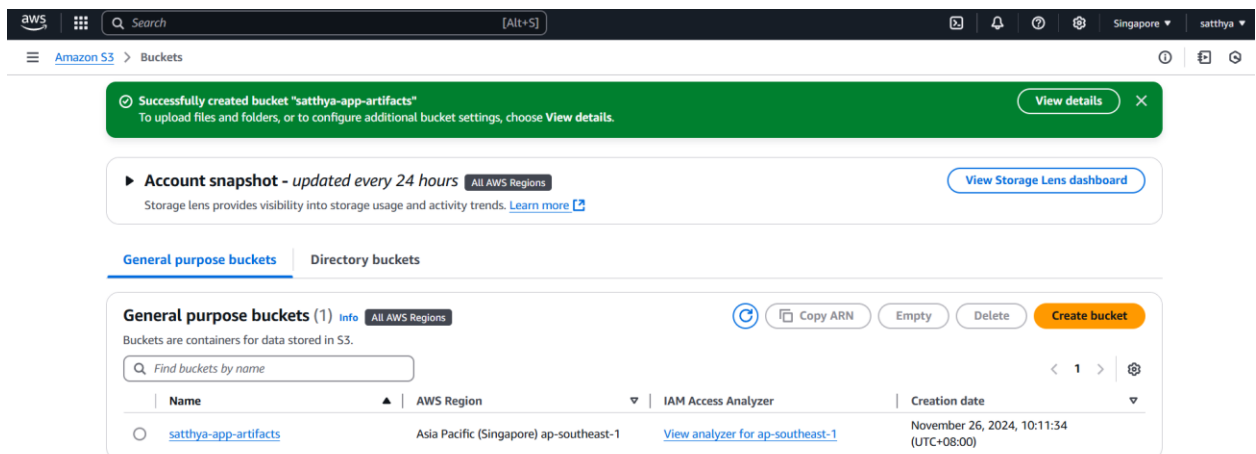
- Create IAM role and assigned to EC2.
- Ensure ruby is install in EC2.



The screenshot shows the AWS Management Console 'Instances' page. At the top, there are buttons for 'Connect', 'Instance state', 'Actions', and 'Launch instances'. A search bar contains the text 'Find Instance by attribute or tag (case-sensitive)'. Below the search bar, a table lists instances. One instance is visible: 'satthya-codepipeline' with ID 'i-0d2e8d955f236060d', state 'Running', type 't2.micro', and status 'Initializing'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
satthya-codepipeline	i-0d2e8d955f236060d	Running	t2.micro	Initializing	View alarms +	ap-southeast-

Create an S3 bucket (for storing build artifacts):



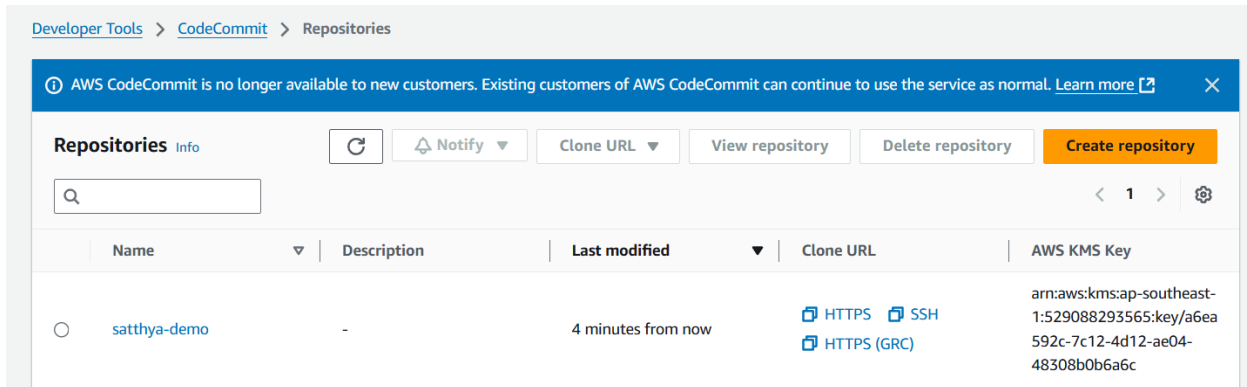
The screenshot shows the AWS Management Console 'Buckets' page. A green banner at the top says 'Successfully created bucket "satthya-app-artifacts"'. Below this, there's a section for 'Account snapshot - updated every 24 hours'. The main section is 'General purpose buckets', which includes a search bar and a table of buckets. One bucket is visible: 'satthya-app-artifacts' in the 'Asia Pacific (Singapore) ap-southeast-1' region, created on 'November 26, 2024, 10:11:34 (UTC+08:00)'.

Name	AWS Region	IAM Access Analyzer	Creation date
satthya-app-artifacts	Asia Pacific (Singapore) ap-southeast-1	View analyzer for ap-southeast-1	November 26, 2024, 10:11:34 (UTC+08:00)

Step2

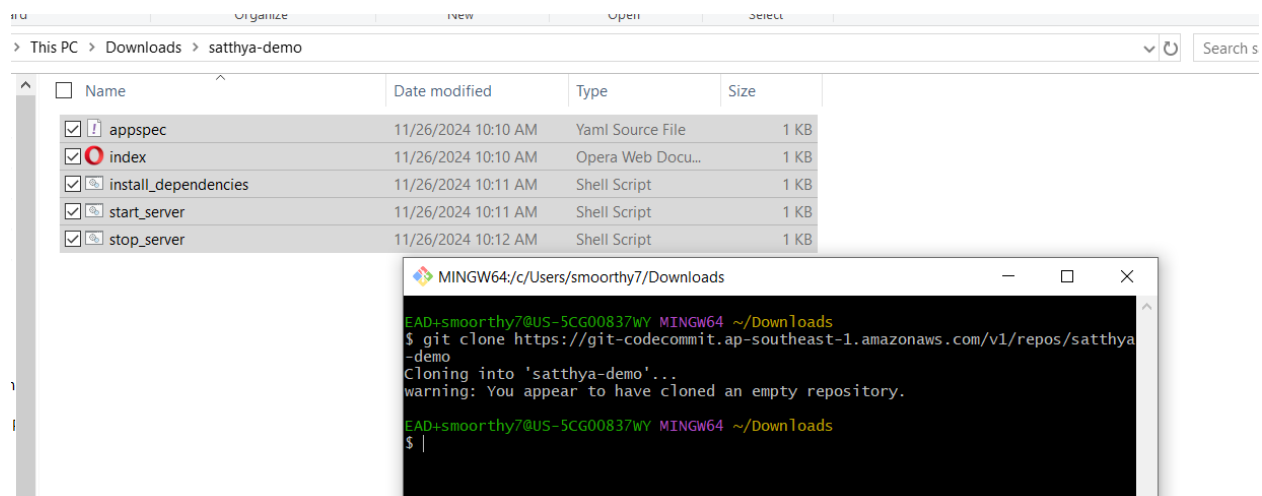
Setup AWS CodeCommit

- AWS Management Console → CodeCommit → Create Repository



Push the application files to CodeCommit

- git clone <https://git-codecommit.ap-southeast-1.amazonaws.com/v1/repos/satthya-demo>



- git add .
- git commit -m "first commit"
- git remote
- git push url

Developer Tools > CodeCommit > Repositories > satthya-demo

satthya-demo

Reference: main

Buttons: Notify, Create pull request, Clone URL

Name
appspec.yml
index.html
install_dependencies.sh
start_server.sh
stop_server.sh

```

MINGW64/c/Users/smoothy7/Downloads/satthya-demo
create mode 100644 index.html
create mode 100644 install_dependencies.sh
create mode 100644 start_server.sh
create mode 100644 stop_server.sh
EAD+smoothy7@US-5CG00837WY MINGW64 ~/Downloads/satthya-demo (main)
$ git remote
origin
EAD+smoothy7@US-5CG00837WY MINGW64 ~/Downloads/satthya-demo (main)
$ git push https://git-codecommit.ap-southeast-1.amazonaws.com/v1/repos/satthya-demo
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 793 bytes | 99.00 KiB/s, done.
Total 7 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Validating objects: 100%
To https://git-codecommit.ap-southeast-1.amazonaws.com/v1/repos/satthya-demo
 * [new branch]      main -> main
EAD+smoothy7@US-5CG00837WY MINGW64 ~/Downloads/satthya-demo (main)
$
  
```

Step3

Configure AWS CodeBuild

- create code build project
- start code build

satthya-build

Actions Create trigger Edit Clone Debug build Start build with overrides **Start build**

Configuration			
Source provider AWS CodeCommit	Primary repository satthya-demo	Artifacts upload location satthya-app-artifacts	Service role arn:aws:iam::529088293565:role/CodeBuild
Public builds Disabled			

Build history Batch history Project 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
satthya-build:aa4fbeb3-9de8-4b06-93a8-3f95f09fa876	Succeeded	1	refs/heads/main	root	26 seconds	4 minutes from now

step4



Configure AWS CodeDeploy

- Create a CodeDeploy application
- Create a Deployment Group
- Create Deployment

Application created
In order to create a new deployment, you must first create a deployment group.

Create a notification rule for this application

[Developer Tools](#) > [CodeDeploy](#) > [Applications](#) > satthya-application

satthya-application

Notify

Delete application

Application details

Name	Compute platform
satthya-application	EC2/On-premises

[Developer Tools](#) > [CodeDeploy](#) > [Applications](#) > satthya-application

satthya-application

Notify

Delete application

Application details

Name	Compute platform
satthya-application	EC2/On-premises

[Deployments](#) | [Deployment groups](#) | [Revisions](#)

Deployment groups

View details

Edit

Create deployment group

< 1 >

	Name	Status	Last attempted deploy...	Last successful deploym...	Trigger count
<input type="radio"/>	satthya-deployment-group	-	-	-	0

Developer Tools > CodeDeploy > Deployments > d-SCI99NR69 > arn:aws:ec2:ap-southeast-1:529088293565:instance/i-01858a6ac4342c943

arn:aws:ec2:ap-southeast-1:529088293565:instance/i-01858a6ac4342c943

Deployment details

Application satthya-application	Deployment ID d-SCI99NR69	Status ✔ Succeeded
Deployment configuration CodeDeployDefault:AllAtOnce	Deployment group satthya-group	Initiated by User action
Deployment description -		

Revision details

Revision location s3://satthya-app-artifacts/satthya-build	Revision created 2 minutes from now	Revision description Application revision registered by Deployment ID: d-SCI99NR69
---	--	---

Event	Duration	Status	Error code	Start time	End time
ApplicationStop	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
DownloadBundle	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
BeforeInstall	1 second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
Install	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
AfterInstall	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
ApplicationStart	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)
ValidateService	less than one second	✔ Succeeded	-	Nov 26, 2024 10:56 PM (UTC+8:00)	Nov 26, 2024 10:56 PM (UTC+8:00)

Step5



Automate with AWS CodePipeline

Developer Tools
CodePipeline

Source • CodeCommit
Artifacts • CodeArtifact
Build • CodeBuild
Deploy • CodeDeploy

Pipeline • CodePipeline
Getting started
Pipeline
History
Settings

Go to resource
Feedback

Success
Congratulations! The pipeline satthya-pipeline has been created.

satthya-pipeline
Pipeline type: V1 Execution mode: QUEUED

Edit Stop execution Close pipeline Rollback change

Source Succeeded
Pipeline execution ID: 089a121-f5c2-460b-804b-8403b3c278e4

Source
AWS CodeCommit
Repository: satthya-app-artifacts
View details

Disable transition

Build Succeeded
Pipeline execution ID: 089a121-f5c2-460b-804b-8403b3c278e4

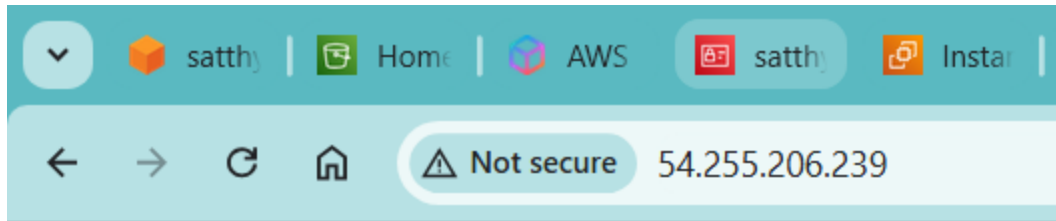
Build
AWS CodeBuild
View details

Disable transition

Deploy Succeeded
Pipeline execution ID: 089a121-f5c2-460b-804b-8403b3c278e4

Deploy
AWS CodeDeploy
View details

Start rollback



It works!