

EXPERIMENT NO. 2

NAME : PRANAV POL

CLASS : D15A

ROLL NO. : 42

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.

Elastic Beanstalk

Step 1: create environment

The screenshot shows the 'Configure environment' page in the AWS Elastic Beanstalk console. The left sidebar lists the steps: Step 1 (Configure environment), Step 2 (Configure service access), Step 3 (optional: Set up networking, database, and tags), Step 4 (optional: Configure instance traffic and scaling), Step 5 (optional: Configure updates, monitoring, and logging), and Step 6 (Review). The main content area is titled 'Configure environment' and includes three sections: 'Environment tier' with radio buttons for 'Web server environment' (selected) and 'Worker environment'; 'Application information' with a text field for 'Application name' containing 'pranavbean' and a '► Application tags (optional)' link; and 'Environment information' with a note to choose the name, subdomain, and description.

Step 2 : add your Ec2 key pair and instance profile

The screenshot shows the 'Configure service access' page in the AWS Elastic Beanstalk console. The left sidebar shows the steps, with Step 2 (Configure service access) highlighted. The main content area is titled 'Configure service access' and includes three sections: 'Service access' with radio buttons for 'Create and use new service role' and 'Use an existing service role' (selected); 'EC2 key pair' with a dropdown menu showing 'vockey'; and 'EC2 instance profile' with a dropdown menu. A 'View permission details' button is located at the bottom of the instance profile section.

Step 3 : add security config and review all settings

Monitoring interval

5 minute

Instance metadata service (IMDS)

Your environment's platform supports both IMDSv1 and IMDSv2. To enforce IMDSv2, deactivate IMDSv1. [Learn more](#)

IMDSv1

With the current setting, the environment enables only IMDSv2.

☒ Deactivated

EC2 security groups

Select security groups to control traffic.

EC2 security groups (2)

<input type="checkbox"/>	Group name	Group ID	Name
<input type="checkbox"/>	default	sg-0732529a5b5c4e0c9	
<input checked="" type="checkbox"/>	launch-wizard-1	sg-0a71c626b631f2b32	

Capacity





[Info](#)

aws

Services

Search

[Alt+S]



N. Virginia

voclabs/user:3402839=POI_PRANAV_SANTOSH @ 6333-9375-8690

Step 1

[Configure environment](#)

Step 2

[Configure service access](#)

Step 3 - optional

[Set up networking, database, and tags](#)

Step 4 - optional

[Configure instance traffic and scaling](#)

Step 5 - optional

[Configure updates, monitoring, and logging](#)

Step 6

Review

Review

[Info](#)

Step 1: Configure environment

Edit

Environment information

Environment tier	Application name
Web server environment	pranavsbean
Environment name	Application code
Pranavsbean-env	Sample application
Platform	
arn:aws:elasticbeanstalk:us-east-1:platform/Node.js 20	
running on 64bit Amazon Linux 2023/6.2.0	

Step 2: Configure service access

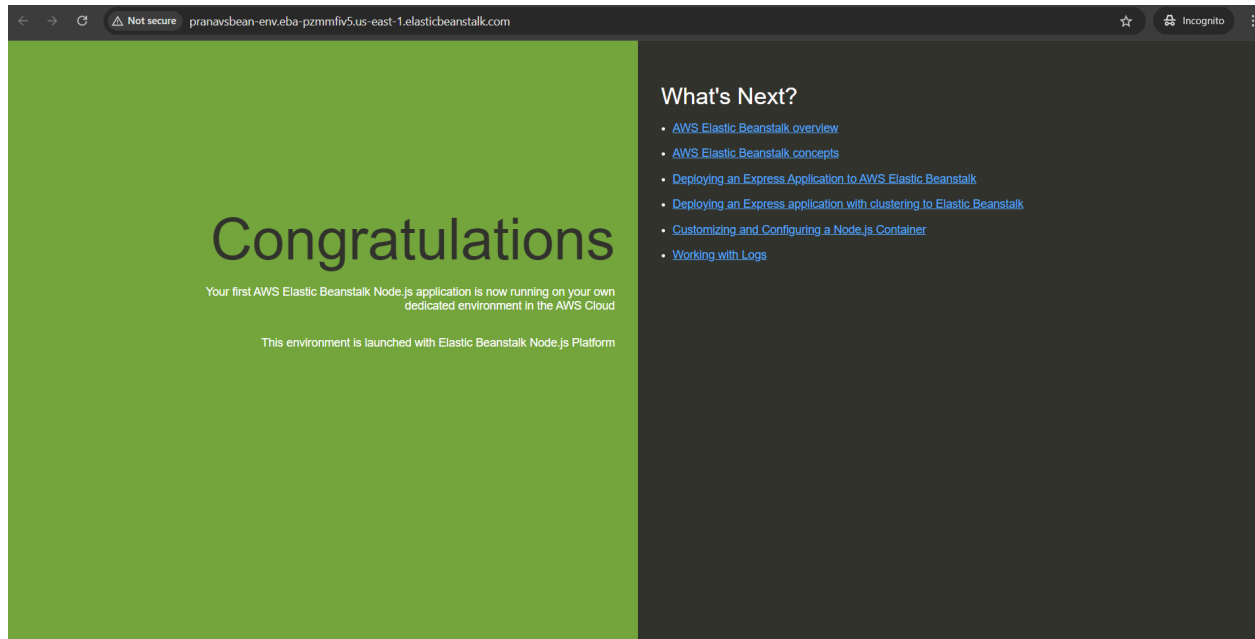
Edit

Service access

[Info](#)

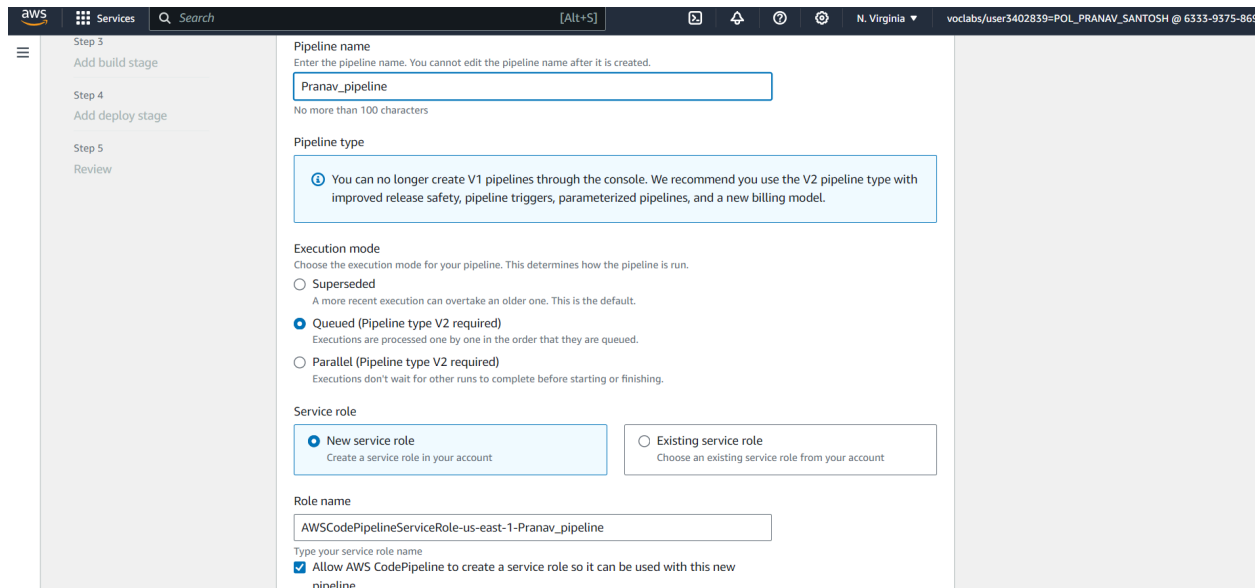
Configure the service role and EC2 instance profile that Elastic Beanstalk uses to manage your environment. Choose an EC2 key pair to securely log in to your EC2 instances.

Step 4 : Beanstalk environment is created



Pipeline Creation

Step 1 : click on create pipeline and give name



Step 2 : Add Your github account and add the file to add to pipeline deployment

The screenshot shows the AWS CodePipeline console interface. The top navigation bar includes the AWS logo, 'Services', a search bar, and user information. The left sidebar shows the pipeline steps: Step 1 (Choose pipeline settings), Step 2 (Add source stage), Step 3 (Add build stage), Step 4 (Add deploy stage), Step 5 (Review), and a 'Review' button. The main content area is titled 'Add source stage' and 'Step 2 of 5'. It features a 'Source' section with a 'Source provider' dropdown set to 'GitHub (Version 1)'. Below this is a 'Connect to GitHub' button. A blue informational box states: 'The GitHub (Version 1) action is not recommended. The selected action uses OAuth apps to access your GitHub repository. This is no longer the recommended method. Instead, choose the GitHub (Version 2) action to access your repository by creating a connection. Connections use GitHub Apps to manage authentication and can be shared with other resources. Learn more'. The 'Change detection options' section has two radio buttons: 'GitHub webhooks (recommended)' (selected) and 'AWS CodePipeline'. The 'GitHub webhooks' option includes a description: 'Use webhooks in GitHub to automatically start my pipeline when a change occurs'.

Step 3 : Add deploy config choosing the elastic beanstalk

The screenshot shows the AWS CodePipeline console interface for the 'Add deploy stage' step. The left sidebar shows the pipeline steps: Step 4 (Add deploy stage), Step 5 (Review), and a 'Review' button. The main content area is titled 'Add deploy stage' and 'Step 4 of 5'. It features a 'Deploy' section with a 'Deploy provider' dropdown set to 'AWS Elastic Beanstalk'. Below this is a 'Region' dropdown set to 'US East (N. Virginia)'. The 'Input artifacts' section has a dropdown set to 'SourceArtifact'. The 'Application name' section has a text input field containing 'pranavsbean'. The 'Environment name' section has a text input field containing 'Pranavsbean-env'. There is a checkbox for 'Configure automatic rollback on stage failure' which is currently unchecked.

Step 4 : review changes and submit

The screenshot shows the AWS CodePipeline console interface. The top navigation bar includes the AWS logo, 'Services', a search bar, and user information. The breadcrumb trail is 'Developer Tools > CodePipeline > Pipelines > Create new pipeline'. On the left, a sidebar lists the steps: 'Step 1: Choose pipeline settings', 'Step 2: Add source stage', 'Step 3: Add build stage', 'Step 4: Add deploy stage', and 'Step 5: Review'. The main content area is titled 'Review' and 'Step 5 of 5'. It contains a 'Pipeline settings' section with the following details: Pipeline name (Pranav_pipeline), Pipeline type (V2), Execution mode (QUEUED), Artifact location (A new Amazon S3 bucket will be created as the default artifact store for your pipeline), and Service role name (AWSCodePipelineServiceRole-us-east-1-Pranav_pipeline). Below this is a 'Variables' section. At the bottom of the console, there are three buttons: 'Cancel', 'Previous', and 'Create pipeline'.

aws Services Search [Alt+S] N. Virginia voclabs/user3402839=POL_PRANAV_SANTOSH @ 6333-9375-8690

Developer Tools > CodePipeline > Pipelines > Create new pipeline

Step 1
Choose pipeline settings

Step 2
Add source stage

Step 3
Add build stage

Step 4
Add deploy stage

Step 5
Review

Review Info

Step 5 of 5

Step 1: Choose pipeline settings

Pipeline settings

Pipeline name
Pranav_pipeline

Pipeline type
V2

Execution mode
QUEUED

Artifact location
A new Amazon S3 bucket will be created as the default artifact store for your pipeline

Service role name
AWSCodePipelineServiceRole-us-east-1-Pranav_pipeline

Variables

Cancel Previous Create pipeline

Step 5 : view the pipeline build and deployment

The screenshot shows the AWS CodePipeline console for a pipeline named 'pranav_pipeline'. The pipeline type is 'V2' and the execution mode is 'QUEUED'. The console displays the following details:

- Source Stage:** Succeeded. Pipeline execution ID: 56dc1b2c-8499-4270-b854-f1b93d42ef90. The source action is 'Source' using 'GitHub (Version 1)' provider, which succeeded 1 minute ago. A 'View details' button is available.
- Deploy Stage:** Succeeded. Pipeline execution ID: 56dc1b2c-8499-4270-b854-f1b93d42ef90. The deploy action is 'Deploy'.

On the left sidebar, the 'Pipeline' tab is selected under the 'CodePipeline' section. The top navigation bar includes options like 'Notify', 'Edit', 'Stop execution', 'Clone pipeline', and 'Release change'.

Step 6 : Check the deployed website at beanstalk link

The screenshot shows the TaskMate website. The browser address bar displays 'pranavbean-env.eba-ikm7et2h.us-east-1.elasticbeanstalk.com'. The website features a large illustration of a person holding a large blue pencil and pointing to a checklist on a tablet. The text on the page reads:

Manage Your Tasks Efficiently with TaskMate

TaskMate helps you stay organized, set priorities, and keep track of your personal tasks. Whether it's a simple to-do list or a detailed project, TaskMate has got you covered.

A 'Get Started' button is visible in the bottom left corner of the main content area. The top navigation bar includes links for 'DASHBOARD', 'MY TASKS', 'ADD TASK', and a 'Login' button.