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CMP224-R

How to create your DEV/TEST environment on Amazon Lightsail

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Agenda

Overview of Lightsail

Application development lifecycle

DevOps best practices

Scenario description

Build, build, build!

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Amazon Lightsail

Virtual Private Servers (VPS), storage, databases, and networking for a low, predictable price

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What's in the bundle?

Every Lightsail instance includes:

- Compute (processor)
- SSD-based storage
- Data transfer allowance
- Low predictable price

Additionally:

DNS management

Static IP

Content Delivery Network (CDN)

Object storage

Integration with other AWS services

aws

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Amazon Lightsail

RESOURCES

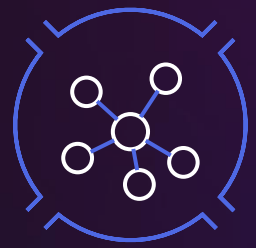
An easy way to run your applications at a low, predictable price

Virtual servers

Containers

Object storage

Managed databases



Networking

Connect other AWS services

aws

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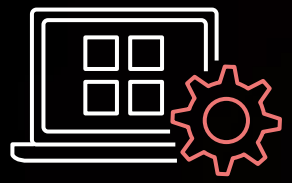
Lightsail is great for...



Simple web applications

Pre-configured development stacks for LAMP, Nginx, MEAN, Django, and Node.js

Websites

Pre-configured click-to-install applications including WordPress, Magento, Drupal, Ghost, Plesk, and Joomla

Business software

Launch your own applications like file sharing and storage, backups, financial and accounting software, and more

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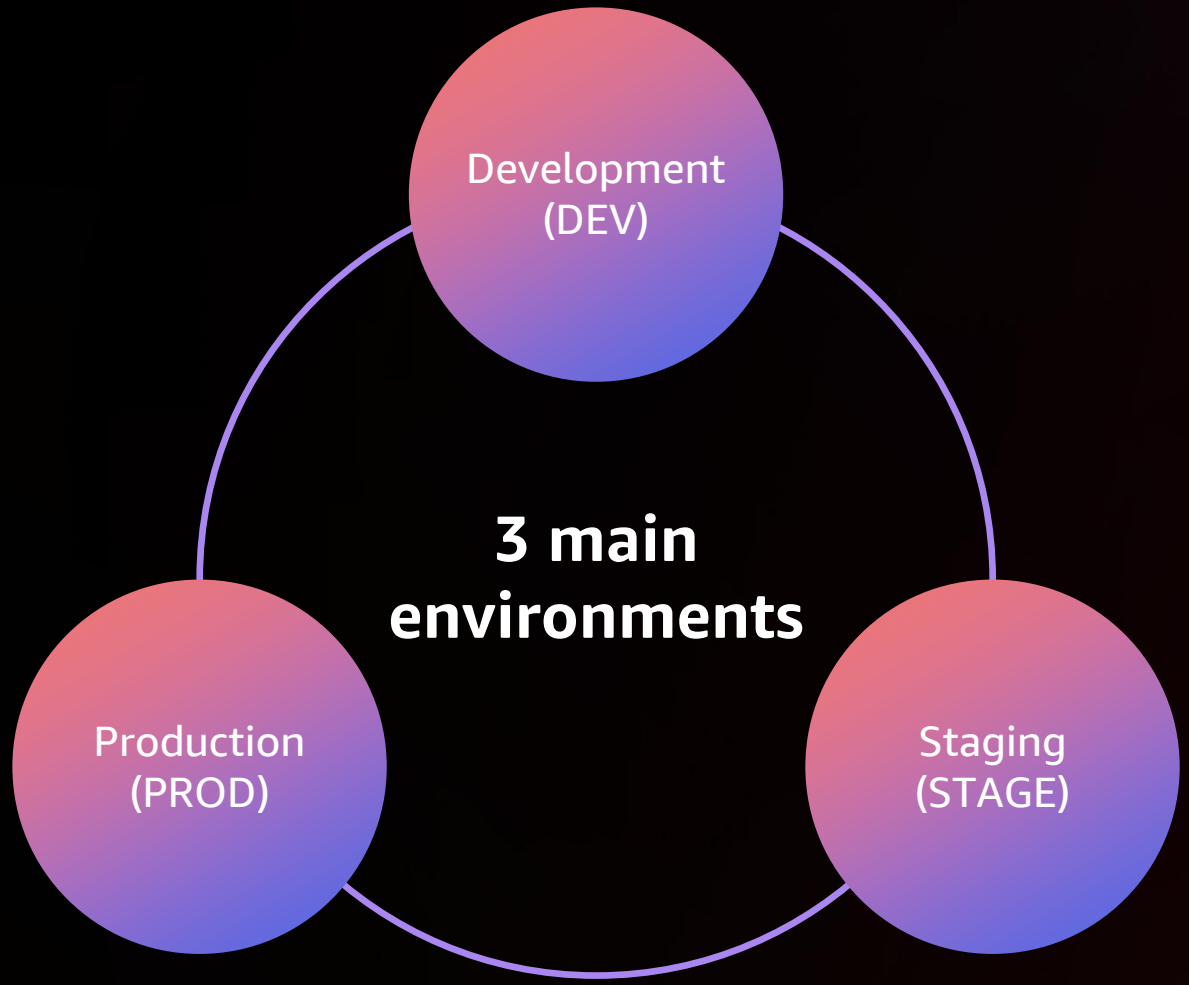
Application development lifecycle



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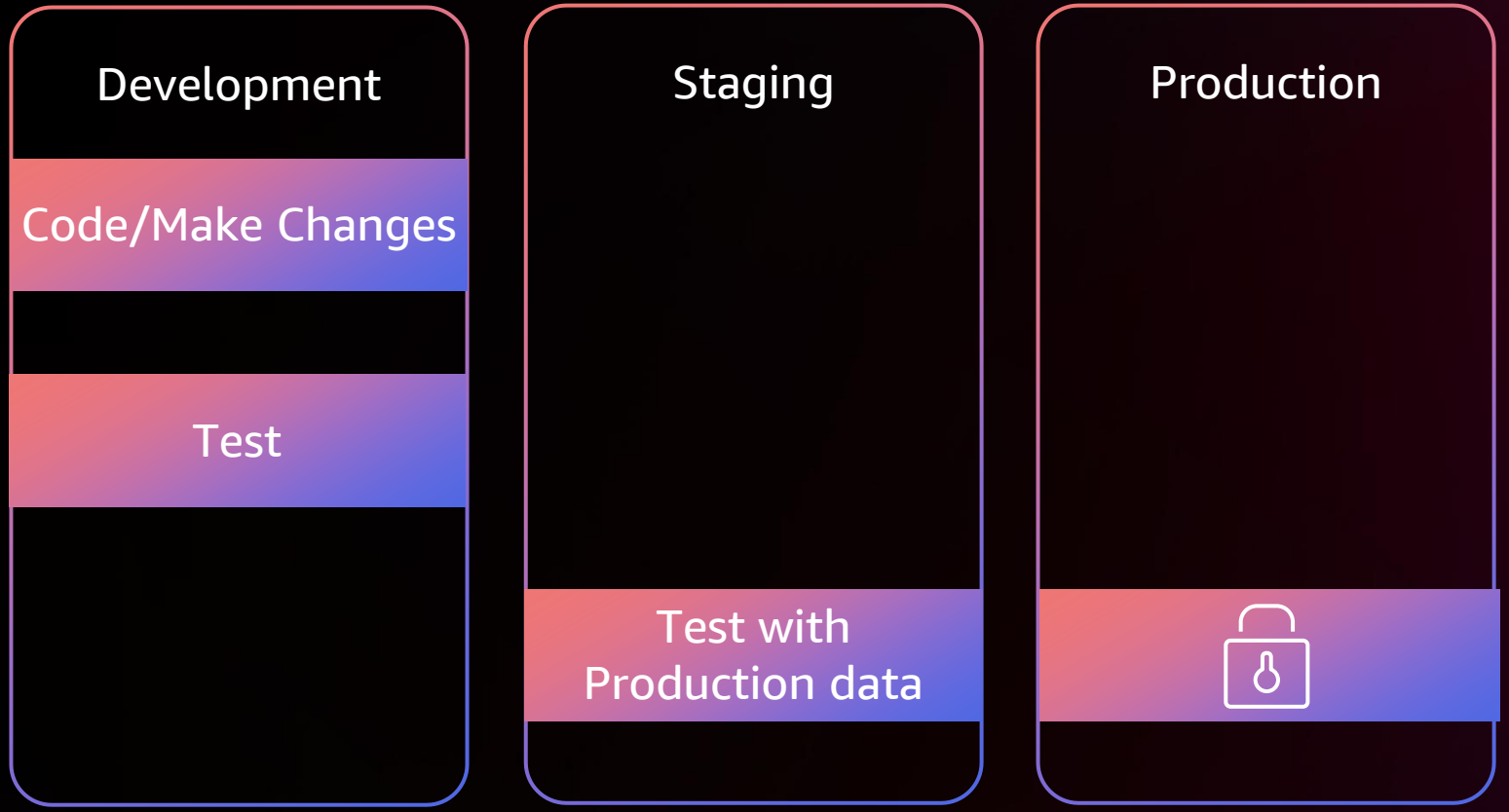
DEV/STAGE/PROD Environments



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Development (DEV)

This is the environment where you make all of your code updates.

Nothing here is attached to the Production environment so a bug in the code or problems in the DEV environment will never affect customers.

Lots of testing should be done here to make sure everything is working before sending it to the next stage.

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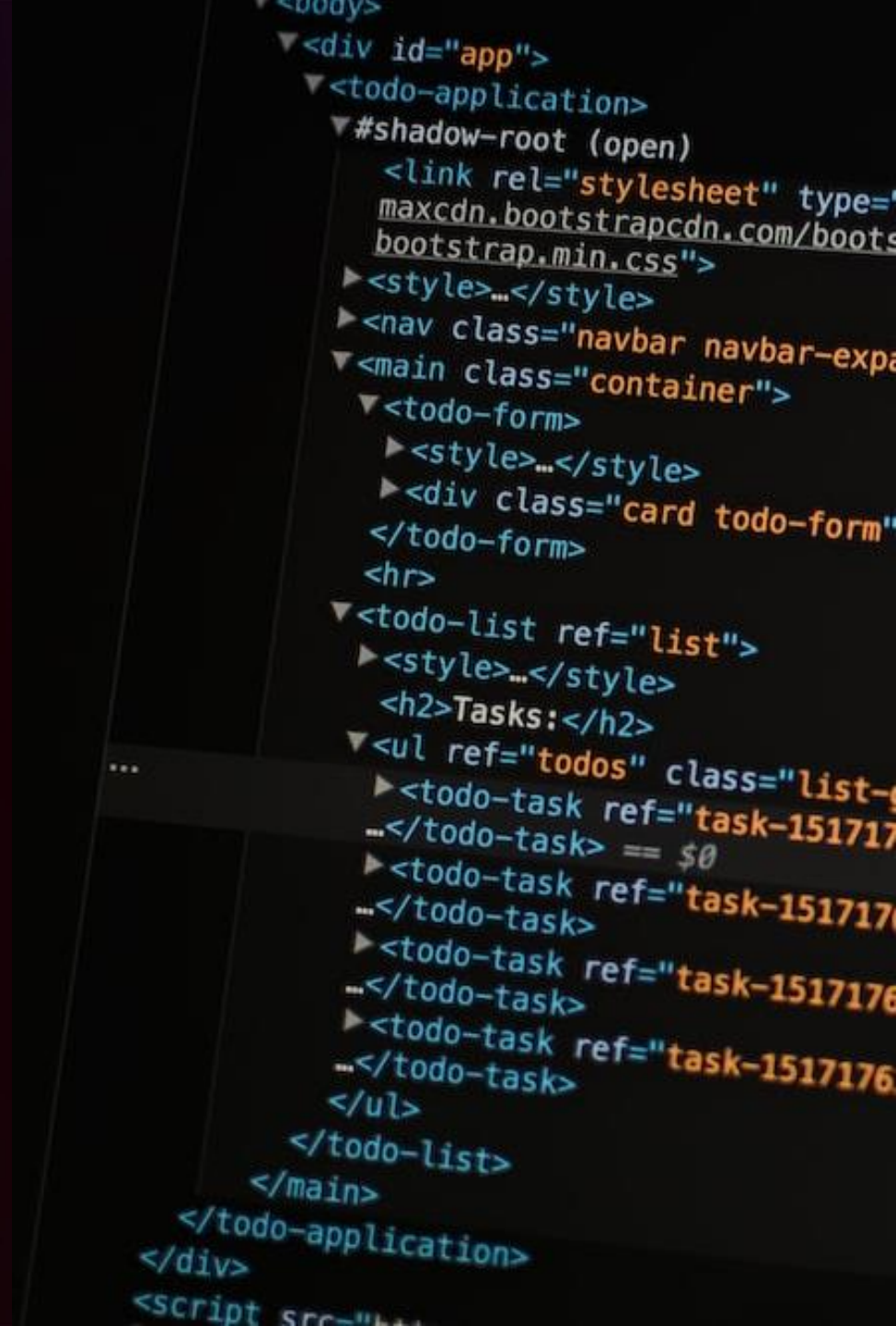
Staging (STAGE)

The staging environment is as close in similarity to the production environment as possible. This stage still does not touch any Production environment systems.

As many services as possible that are used in Production should also be mirrored in STAGE.

Here, all the final testing occurs before releasing code into Production. This is where all ‘fit-and-finish’ actions take place before going live.



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Production (PROD)

Although each environment is important, **Production is the most important in that this is what your users will interact with**.

This is the final environment for the code. All changes here impact your customers.

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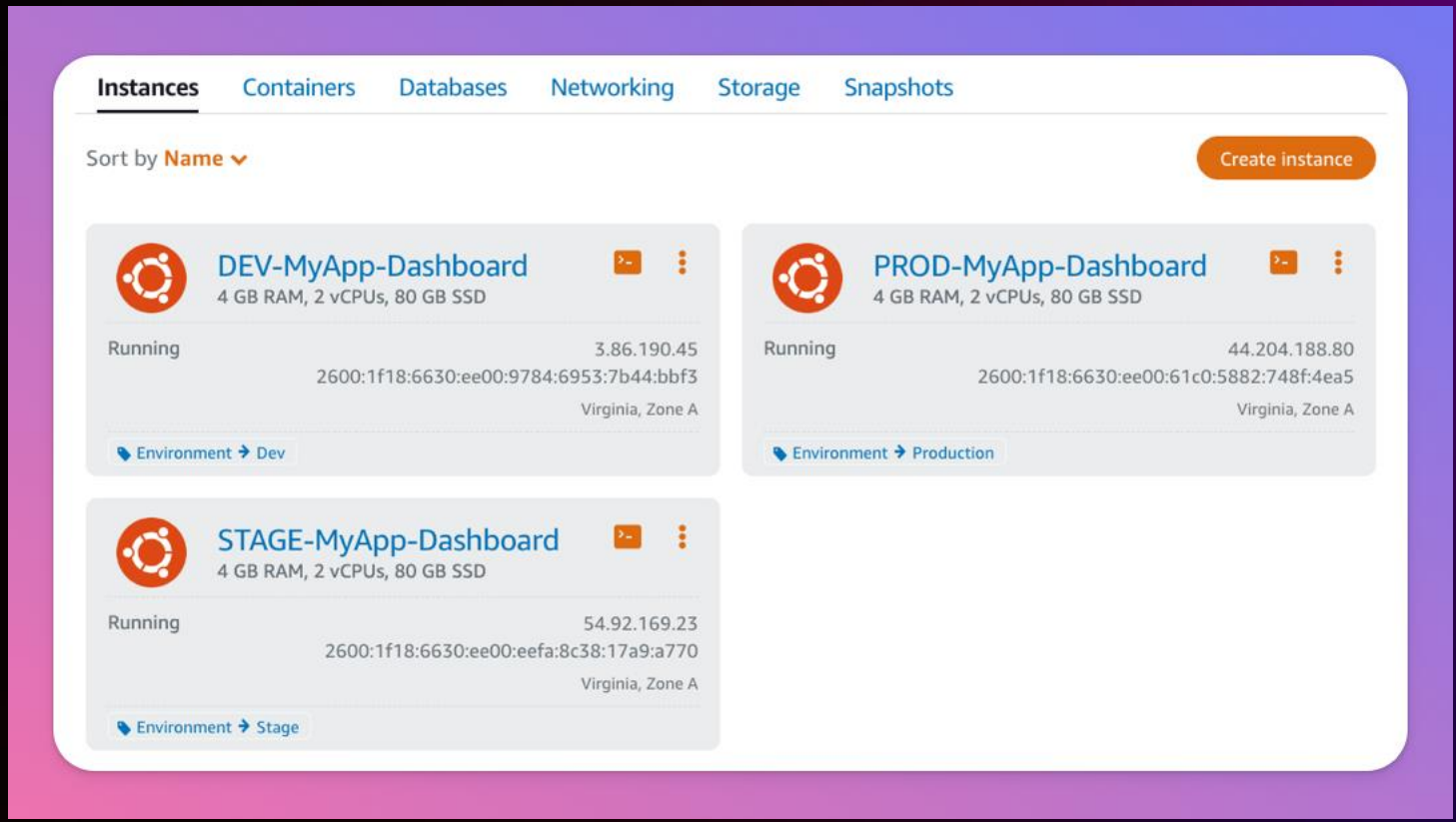
Example in Lightsail

- Each environment has its own instance
- Each instance is tagged for an environment
- Each instance is the exact same size/type (consistency)



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Technologies you'll use:

AWS CodeCommit + AWS CodeDeploy + AWS CodePipeline

Git

HTML

Nginx Web Server

aws

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Scenario description

You have 2 hours to build the following solution:

1. Deploy and Configure CI/CD Pipeline
2. Create an environment for DEV and STAGE instances
3. Download and edit a website template
4. Commit changes to Git Repo
5. Deploy changes to Staging instance

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Getting started with this workshop

- As a participant, you will have access to an AWS account with any optional pre-provisioned infrastructure and IAM policies needed to complete this workshop.
- The AWS account will only be available for the duration of this workshop. You will lose access to the account thereafter.
- The optional pre-provisioned infrastructure will be deployed to a specific region. Check your workshop content to determine whether other regions will be used.
- Be sure to review the terms and conditions of the event. Do not upload any personal or confidential information in the account.

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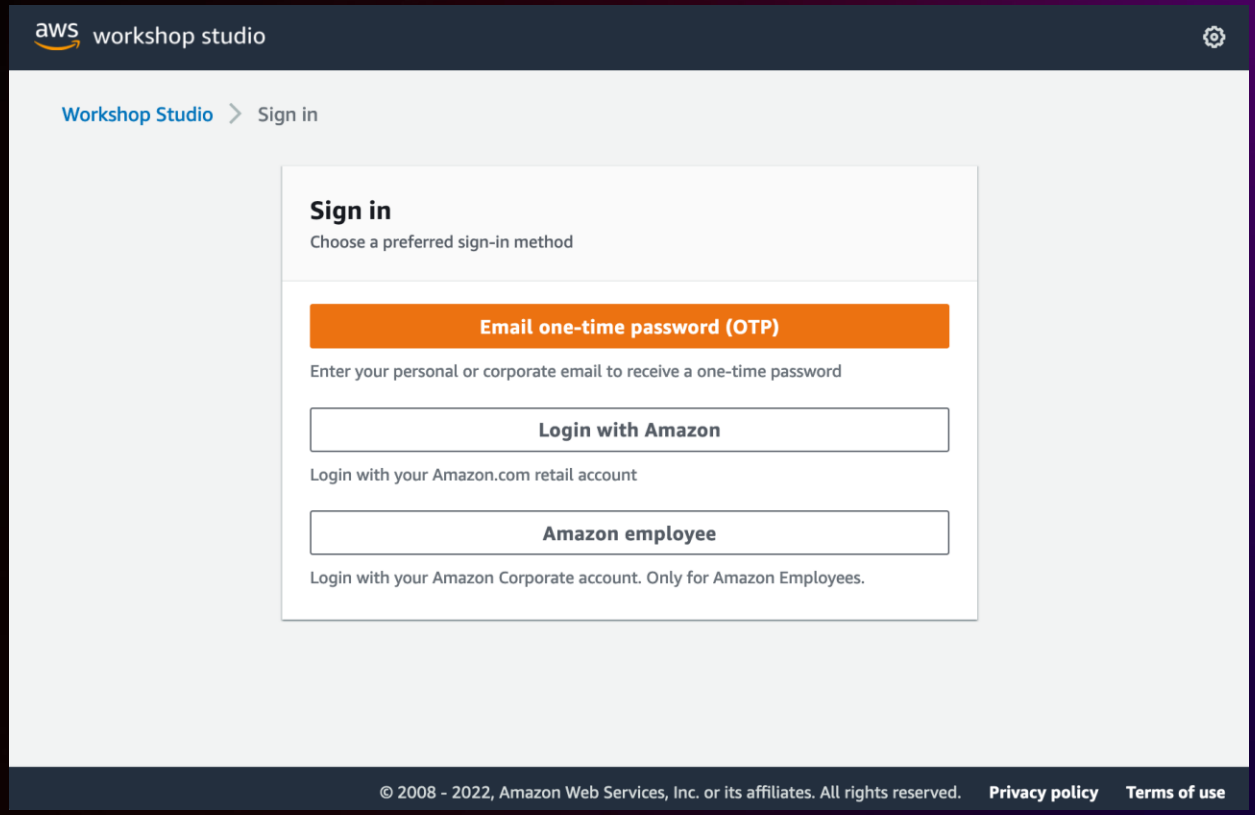
Step 1: Sign-In via your preferred method

https://catalog.workshops.aws/join



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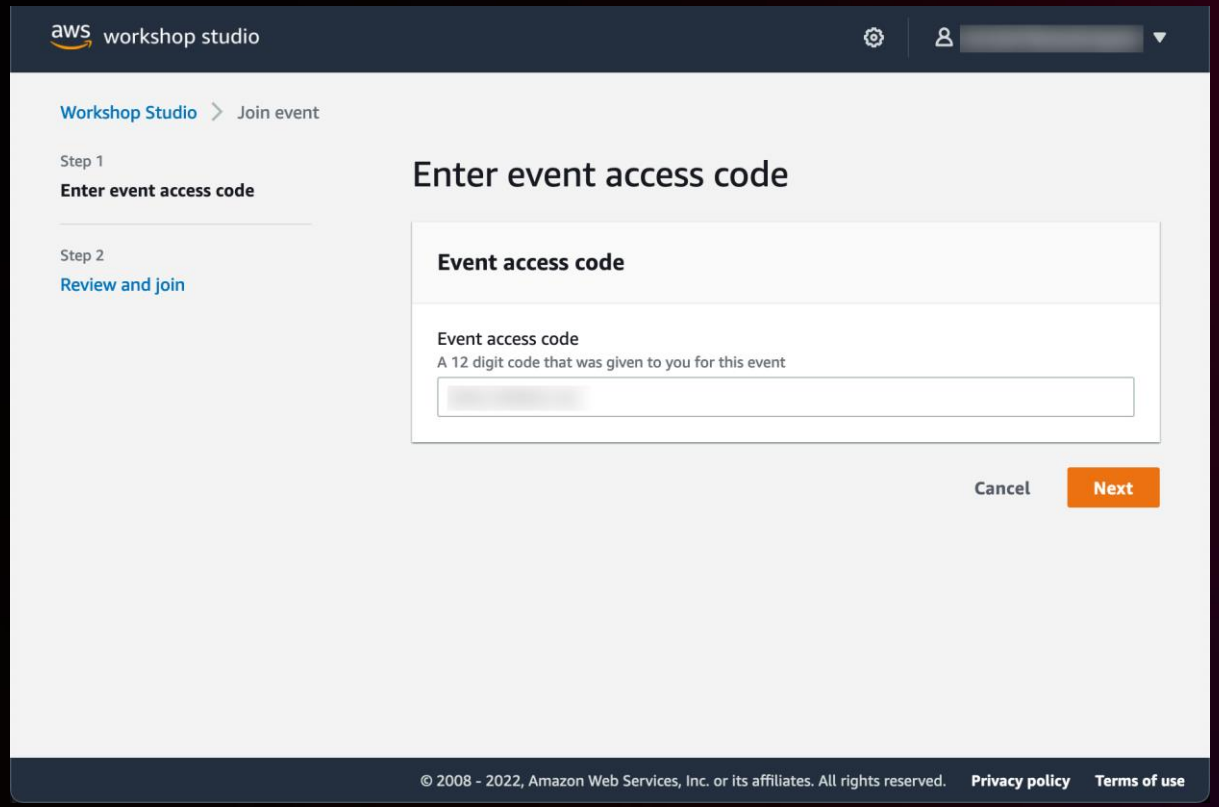
Step 2: Enter event access code

Enter 12 digit event access code. If you were given a one-click join link, you can skip this step.



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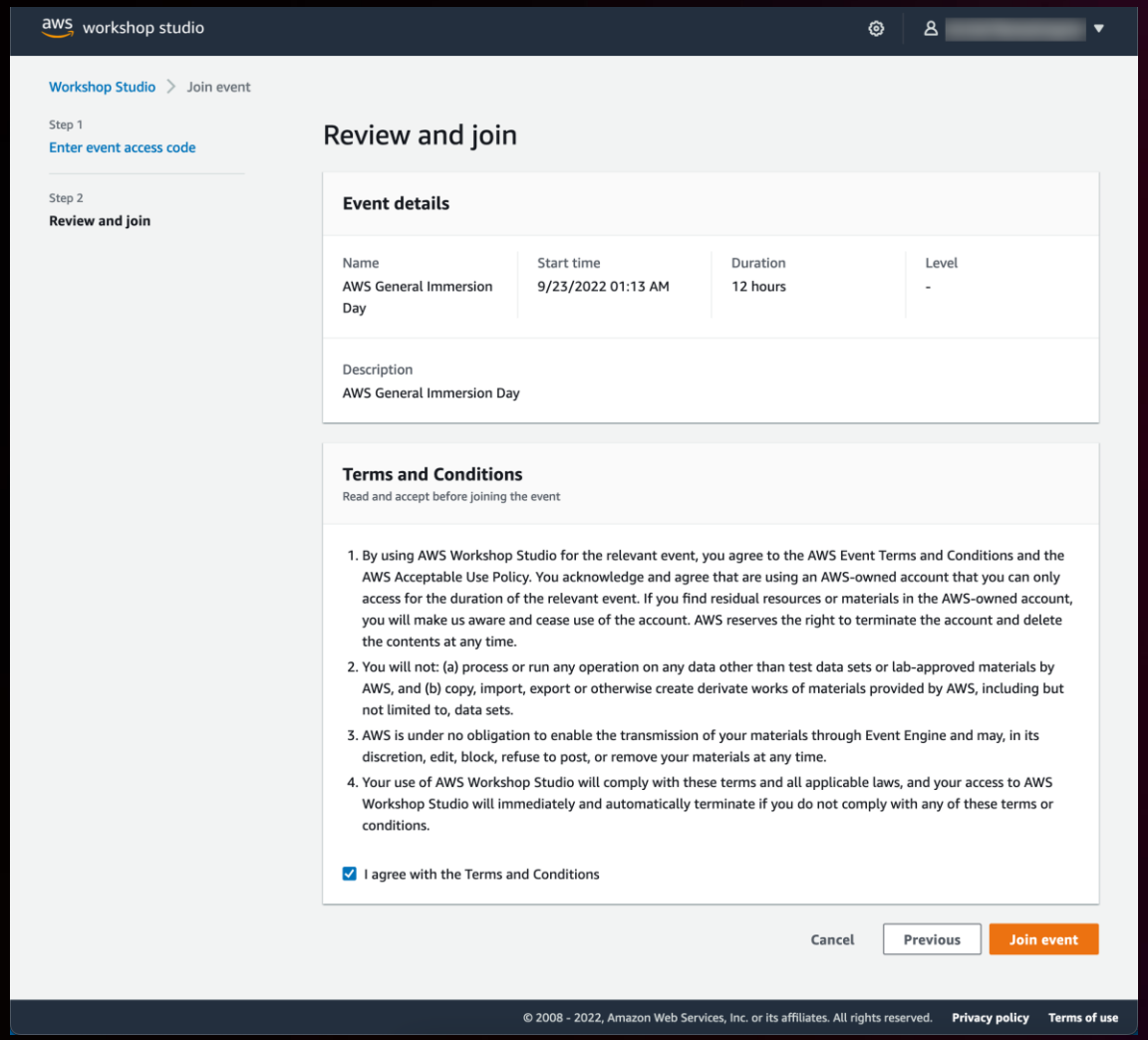
Step 3: Review terms and join event



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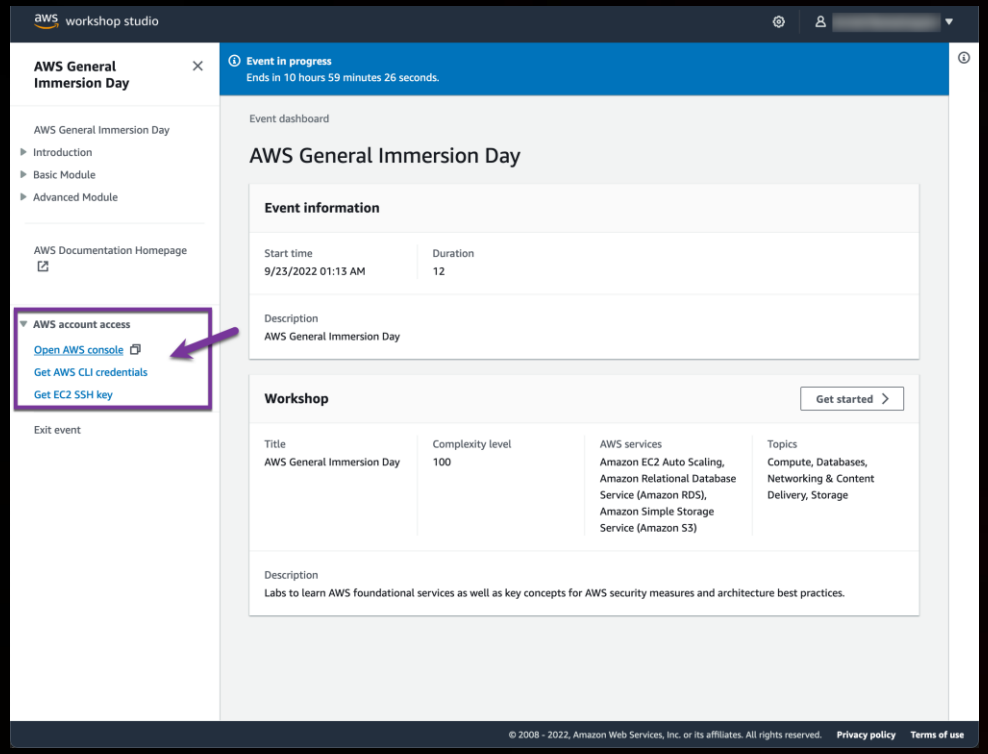
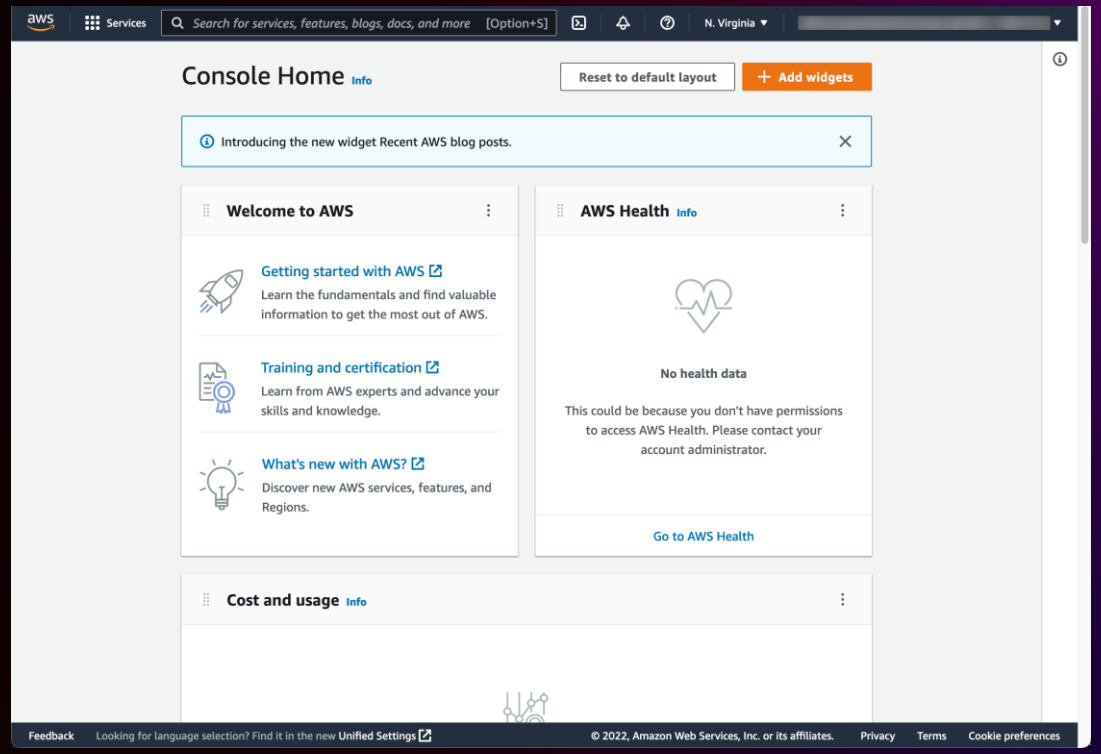
Step 4: Access AWS account

Access the AWS Console, or generate AWS CLI credentials as needed





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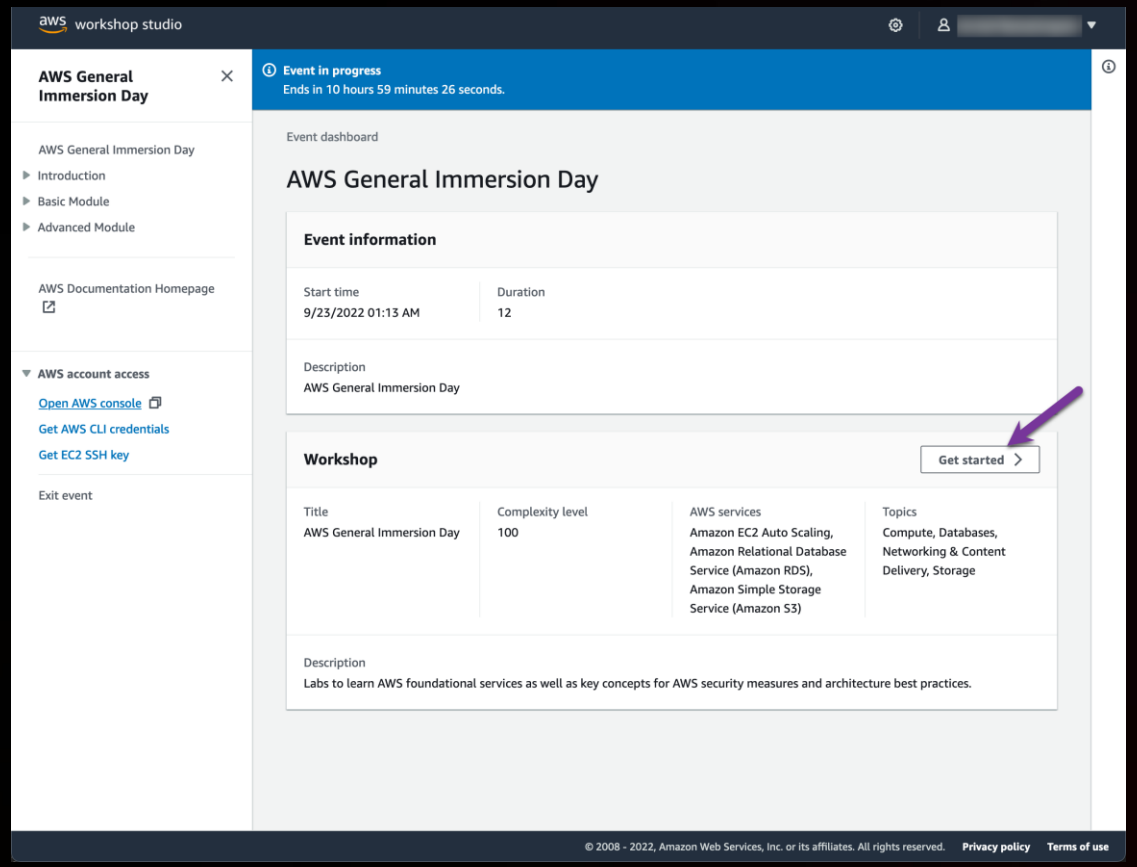
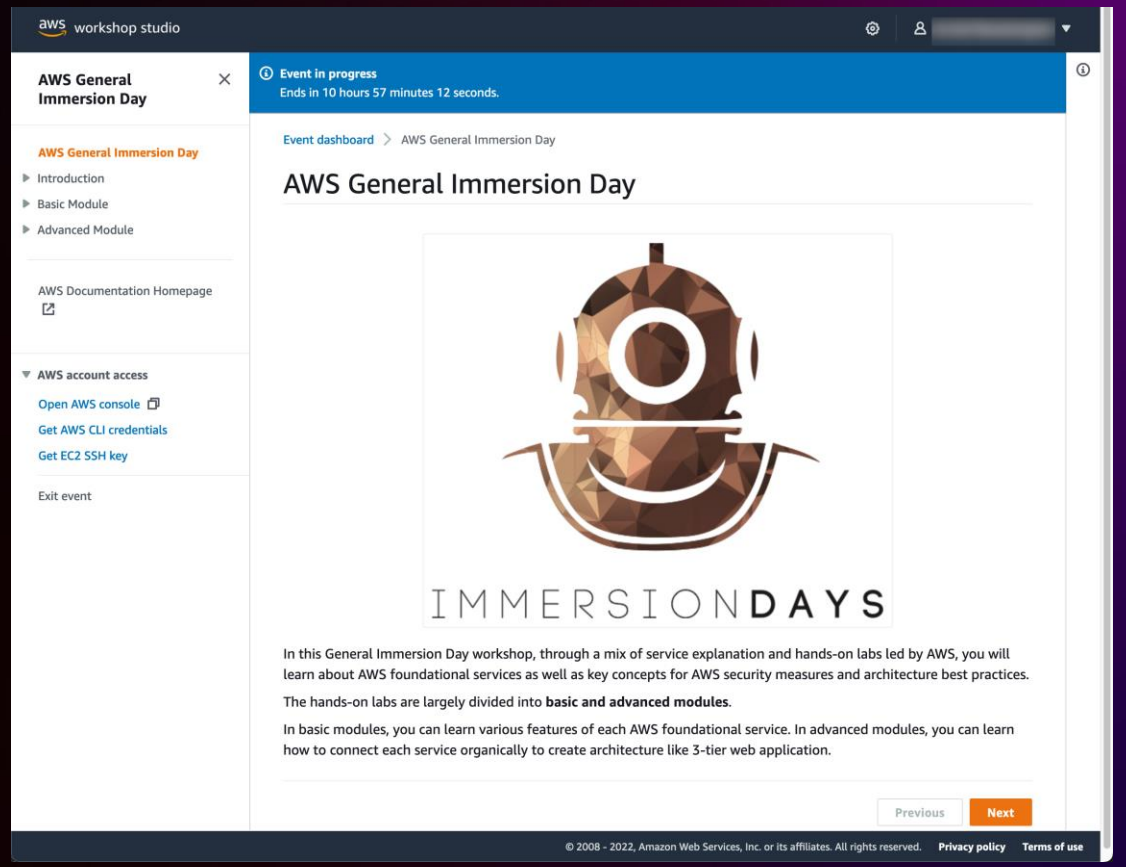
Step 5: Get started with the workshop





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Thank you!

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