



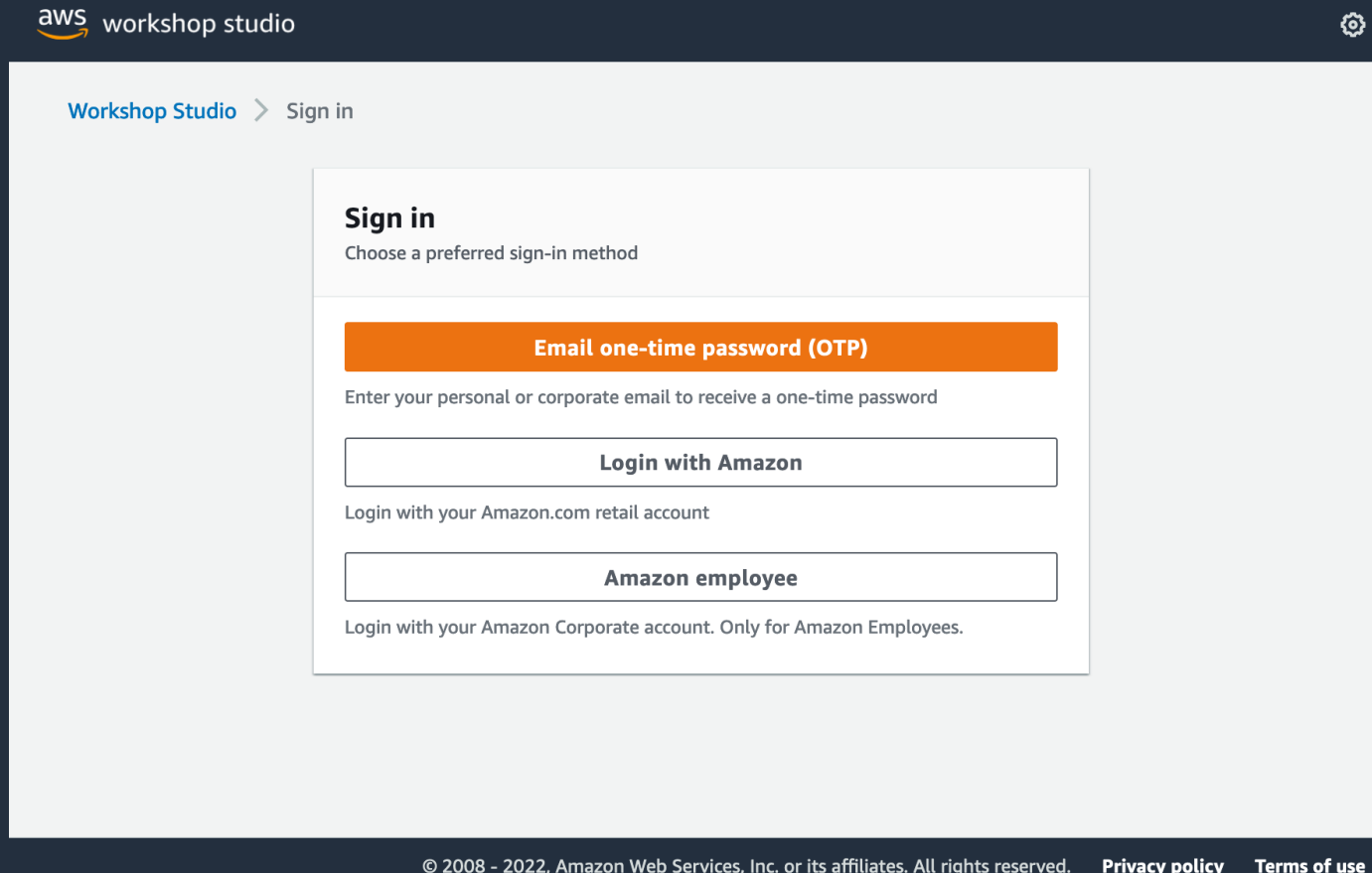
Amazon Bedrock

Hands-on Labs Instructions

IBM Consulting, Nordcloud, Agyla
AWS Generative AI Bootcamp Day 2

Step 1: Sign in via your preferred method

<https://catalog.workshops.aws/join>



The screenshot shows the AWS Workshop Studio sign-in interface. At the top left is the AWS logo followed by 'workshop studio'. At the top right is a gear icon. Below the header, a breadcrumb trail reads 'Workshop Studio > Sign in'. The main content area is a white box with a light gray border. Inside, the heading 'Sign in' is followed by the instruction 'Choose a preferred sign-in method'. There are three sign-in options: 1. 'Email one-time password (OTP)' in an orange button, with the instruction 'Enter your personal or corporate email to receive a one-time password' below it. 2. 'Login with Amazon' in a white button with a black border, with the instruction 'Login with your Amazon.com retail account' below it. 3. 'Amazon employee' in a white button with a black border, with the instruction 'Login with your Amazon Corporate account. Only for Amazon Employees.' below it. At the bottom of the page, there is a footer with the copyright notice '© 2008 - 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.' and two links: 'Privacy policy' and 'Terms of use'.

aws workshop studio

Workshop Studio > Sign in

Sign in
Choose a preferred sign-in method

Email one-time password (OTP)
Enter your personal or corporate email to receive a one-time password

Login with Amazon
Login with your Amazon.com retail account

Amazon employee
Login with your Amazon Corporate account. Only for Amazon Employees.




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Step 2: Enter event access code



18c4-069cc5-93

aws workshop studio

[Workshop Studio](#) > [Join event](#)

Step 1

Enter event access code

Step 2

[Review and join](#)

Event access code

Event access code

A 12 digit code that was given to you for this event

Cancel

Next

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Step 3: Review terms and join event

aws workshop studio

Workshop Studio > Join event

Step 1
Enter event access code

Step 2
Review and join

Review and join

Event details

Name	Start time	Duration	Level
Generative AI on Amazon SageMaker Workshop	7/16/2023 08:00 PM	72 hours	300

Description
Generative AI on Amazon SageMaker Workshop

Terms and Conditions
Read and accept before joining the event

Read and accept before joining the event:

1. By using AWS Workshop Studio for the relevant event, You agree to [the AWS Event Terms and Conditions](#) and the [AWS Acceptable Use Policy](#).
2. If You are under 18 years old, You may participate in the relevant event, using AWS Workshop Studio: (a) if you are at least the minimum age below based on the country or region in which you reside, and (b) with the involvement of a parent, guardian or educator.

Country or region	Minimum age
All countries or regions not listed below (including United States, Brazil, UK, and India)	13
China, Republic of Korea (South Korea)	14

9. AWS, its affiliates and any entities or persons acting on AWS's behalf, has no obligation to enable the transmission of Your materials through AWS Workshop Studio, and may, in its discretion, edit, block, refuse to post, or remove Your materials at any time, without notice to You.

10. If You are an AWS Partner, using AWS Workshop Studio as part of Your participation in the AWS Partner Network Program, Your use of AWS Workshop Studio is governed by these terms, the AWS Partner Network Terms and Conditions, and Your applicable customer agreement with AWS.

11. Your use of AWS Workshop Studio will comply with these terms and all applicable laws. If You fail to comply with any of these terms, Your access to AWS Workshop Studio may be immediately terminated, without notice to You.

☐ I agree with the Terms and Conditions

Cancel Previous **Join event**

Step 4: Access AWS account

Access the [AWS Console](#), or generate AWS CLI credentials as needed

The screenshot shows the AWS Workshop Studio interface. On the left, a sidebar contains a navigation menu with the following items: 'Generative AI on Amazon SageMaker Workshop', 'Prerequisites', 'Lab 1. Jumpstart Models for text and image generation', 'Lab 2. Prompt Engineering', 'Lab 3. Customize and train a large language model on SageMaker', 'AWS account access' (expanded), 'Open AWS console (us-east-1)' (highlighted with a red box), 'Get AWS CLI credentials', and 'Exit event'. The main content area has a blue header bar with the text 'Event ends in 2 days 14 hours 25 minutes.' and a user profile 'Arnaud Lauer'. Below the header, the page title is 'Generative AI on Amazon SageMaker Workshop'. The 'Event information' section displays: Start time (7/16/2023 10:03 AM), Duration (72 hours), Accessible regions (us-east-1), and Description (Generative AI on Amazon SageMaker Workshop). The 'Workshop' section includes a 'Get started' button, Title (Generative AI on Amazon SageMaker Workshop), Complexity level (300), AWS services (Amazon SageMaker Studio, Amazon SageMaker), Topics (High Performance Computing (HPC), Machine Learning (ML/AI)), and Description (Hands-on workshop for customers on Generative AI use cases on Amazon SageMaker). The 'Event Outputs (0)' section features a search bar and a table with columns: Key, Value, Stack name, Description, and Type.

aws workshop studio

Event ends in 2 days 14 hours 25 minutes.

Arnaud Lauer

Generative AI on Amazon SageMaker Workshop

Generative AI on Amazon SageMaker - Workshop

Prerequisites

Lab 1. Jumpstart Models for text and image generation

Lab 2. Prompt Engineering

Lab 3. Customize and train a large language model on SageMaker

AWS account access

Open AWS console (us-east-1)

Get AWS CLI credentials

Exit event

Event dashboard > Generative AI on Amazon SageMaker - Workshop

Generative AI on Amazon SageMaker Workshop

Event information

Start time	Duration	Accessible regions
7/16/2023 10:03 AM	72 hours	us-east-1

Description

Generative AI on Amazon SageMaker Workshop

Workshop

Get started >

Title	Complexity level	AWS services	Topics
Generative AI on Amazon SageMaker Workshop	300	Amazon SageMaker Studio, Amazon SageMaker	High Performance Computing (HPC), Machine Learning (ML/AI)

Description

Hands-on workshop for customers on Generative AI use cases on Amazon SageMaker.

Event Outputs (0)

Search

Key	Value	Stack name	Description	Type
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Bedrock Hands-on Labs – Workshop

- Bedrock Workshop GitHub [link](#)
- Bedrock Workshop Studio [link](#) (for reference)

Steps to get started

1. Navigate to **us-east-1** in the **AWS account**
2. Go to **SageMaker** in the **AWS Management Console**
3. Select Domain (**StudioDomain**) from the panel on the left hand side
4. Double click on the domain profile to open it
5. You will find one user profile **studio-user**
6. Click on Launch button and select Studio
7. Wait for SageMaker Studio to open (takes a few mins)
8. Go to **File=> New => Terminal** to open the terminal
9. Run following commands in the terminal
git clone <https://github.com/aws-samples/amazon-bedrock-workshop.git>
10. Open the notebook inside **00_intro**
11. Select **Data Science 3.0** as the Kernel image

[Continue to next slide]

Steps to get started (cont'd)

1. In every notebook, update the Cell containing AWS_DEFAULT_REGION and BEDROCK_ASSUME_ROLE with:

1. **os.environ["AWS_DEFAULT_REGION"] = "us-east-1"**

2. Leave the line with os.environ['AWS_PROFILE'] commented

3. **os.environ["BEDROCK_ASSUME_ROLE"] =
"arn:aws:iam::122594109988:role/ibm-workshop-emea-virtual"**

```
# ---- ⚠ Un-comment and edit the below lines as needed for your AWS setup ⚠ ----  
  
os.environ["AWS_DEFAULT_REGION"] = "us-east-1" # E.g. "us-east-1"  
# os.environ["AWS_PROFILE"] = "<YOUR_PROFILE>"  
os.environ["BEDROCK_ASSUME_ROLE"] = "arn:aws:iam::122594109988:role/ibm-workshop-emea-virtual" # E.g.
```


Steps to get started (cont'd)

- Select Domain (**StudioDomain**) from the panel on the left hand side
- Double click on the domain profile to open it

Awsurl! Click to copy link to clipboard

aws Services Search [Option+S] N. Virginia WSParticipantRole/Participant @ 6524-7434-1270

Amazon SageMaker

- Getting started
- Studio
- Studio Lab
- Canvas
- RStudio
- TensorBoard
- Profiler
- ▼ Admin configurations
 - Domains**
 - Role manager
 - Images
 - Lifecycle configurations
- ▼ JumpStart
 - Foundation models

Domains

A domain includes an associated Amazon Elastic File System (EFS) volume; a list of authorized users; and a variety of security, application, policy, and Amazon Virtual Private Cloud (VPC) configurations. Each user in a domain receives a personal and private home directory within the EFS for notebooks, Git repositories, and data files.

► Domain structure diagram

Domains (1) Info

Find domain name

	Name	Id	Status	Created on	Modified on
<input type="radio"/>	StudioDomain	d-or2oqiblkaz	InService	Oct 12, 2023 10:28 UTC	Oct 12, 2023 10:33 UTC

Buttons: View Edit Create domain

Steps to get started (cont'd)

- Double click on the domain profile to open it
- Find your **studio-user** as the name of the profile

Awsum! Click to copy link to clipboard

aws | Services | Search [Option+S] | N. Virginia | WSParticipantRole/Participant @ 6524-7434-1270

Amazon SageMaker

Getting started
Studio
Studio Lab
Canvas
RStudio
TensorBoard
Profiler

▼ Admin configurations
Domains
Role manager
Images
Lifecycle configurations

SageMaker dashboard
Search

▼ JumpStart
Foundation models **NEW**

Amazon SageMaker > Domains > Domain: StudioDomain

StudioDomain

Domain details

Configure and manage the domain.

User profiles | Space management | Environment | Domain settings

User profiles Info

A user profile represents a single user within a domain. It is the main way to reference a user for the purposes of sharing, reporting, and other us

Search users

Name	Modified on	Created on
studio-user	Oct 12, 2023 10:34 UTC	Oct 12, 2023 10:34 UTC

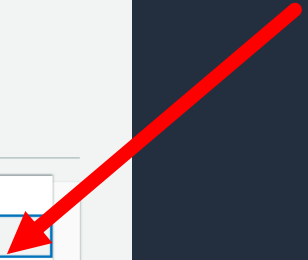
Personal apps

- Studio
- Canvas
- TensorBoard
- Profiler

Collaborative

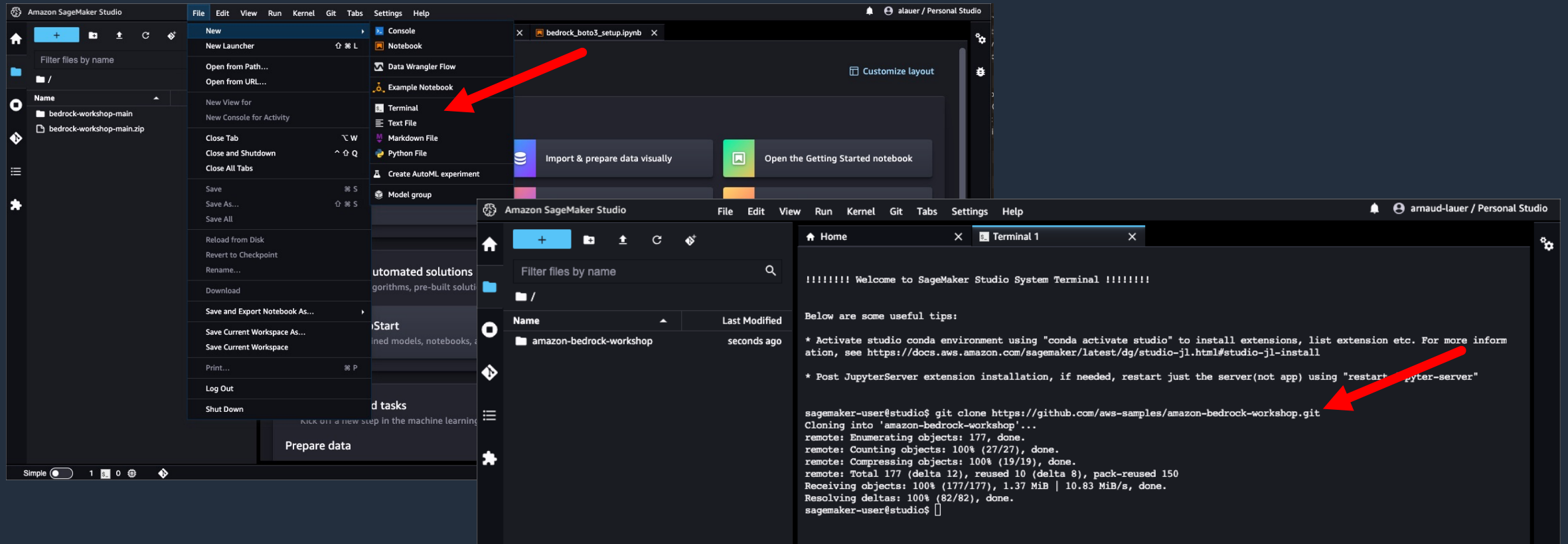
- Spaces

Launch



Steps to get started (cont'd)

- Launch Terminal Window in SageMaker Studio
- Run commands: **git clone** <https://github.com/aws-samples/amazon-bedrock-workshop.git>



Steps to get started (cont'd)

The screenshot shows the Amazon SageMaker Studio interface. On the left, a file explorer shows the directory structure: `/bedrock-workshop-main / 00_Intro /`. The file `bedrock_boto3_setup.ipynb` is selected. In the center, a notebook titled `bedrock_boto3_setup.ipynb` is open. The notebook content includes a section titled `Bedrock boto3 Setup` and a `Prerequisites` section. The `Prerequisites` section contains a code cell with the following command:

```
[2]: %pip install ../dependencies/botocore-1.30.1-py3-none-any.whl ../dependencies/boto3-1.27.1-py3-none-any.whl ../dependencies/awsc...
```

The notebook is running on a cluster named `Data Science 2.0` with `Python 3` and `2 vCPU + 4 GiB` of memory. A red arrow points from the `00_Intro` directory in the file explorer to the notebook. Another red arrow points from the `Data Science 2.0` kernel selection in the top right corner of the notebook interface to the `1. Open the notebook inside 00_intro` step in the instructions.

1. Open the notebook inside `00_intro`
2. Select **Data Science 3.0** as the Kernel image

Steps to get started (cont'd)

In every notebook, update the Cell containing AWS_DEFAULT_REGION and BEDROCK_ASSUME_ROLE with:

```
os.environ["AWS_DEFAULT_REGION"] = "us-east-1"
```

Leave the line with os.environ['AWS_PROFILE'] commented

```
os.environ["BEDROCK_ASSUME_ROLE"] =  
"arn:aws:iam::122594109988:role/ibm-workshop-emea-virtual"
```

```
# ---- ⚠ Un-comment and edit the below lines as needed for your AWS setup ⚠ ----  
  
os.environ["AWS_DEFAULT_REGION"] = "us-east-1" # E.g. "us-east-1"  
# os.environ["AWS_PROFILE"] = "<YOUR_PROFILE>"  
os.environ["BEDROCK_ASSUME_ROLE"] = "arn:aws:iam::122594109988:role/ibm-workshop-emea-virtual" # E.g.
```



Thank you!