

# AWS Academy: How to bridge the gap between theoretical concepts and real-world applications

2024

CAE

Community

Symposium



Eller MIS





# Why use AWS Academy

- Provides a free, ready-to-use cloud computing curriculum for educational institutions. This can be a significant advantage if you want your students to gain cloud expertise.
- AWS centric but cloud networking skills are transferable
- The curriculum is designed to equip students with the technical skills that are highly sought-after by employers in the field of cloud computing. Learning these skills can make you a more competitive candidate in the job market.



# Why use AWS Academy

- Provides resources and training for educators to stay updated on the latest advancements in cloud technologies. This ensures that the curriculum students receive is relevant and up-to-date.
- The program incorporates hands-on labs, allowing students to gain practical experience with AWS services and tools. This practical experience can be invaluable when applying for cloud-related jobs.



# Purpose of a Learner Lab

- What is Learner Lab?
- Purpose of Learner Lab
- Constraints with Learner Lab
- Resources for Designing Activities in Learner Lab
- Best Practices with Learner Lab

# Lab Environments

	In-Module Labs	Learner Labs
Purpose	Temporary 'One-shot' labs; instructions guide students through <b>topic-specific</b> AWS services	Independent, long-running, general-purpose labs
Available Services	Services required for the lab's prescribed scenario	<b>Constrained</b> access to over 100 AWS Services
Limitations	Resources <b>wiped</b> after lab ends;	Resources will be preserved until allocated credits ( <b>USD 100</b> ) run out or course ends
Use Cases	Hands-on reinforcement of concepts introduced in the course	Mid- to <i>Long</i> -term projects/sandbox <b>WITH CONSTRAINTS</b>
How to Access	Embedded within the course	Created as a separate course

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# Lab Modules

## Multi-Factor Authentication

On 25 Jan, 2024, AWS Academy is implementing multi-factor authentication as a required security enhancement for our customers



## Courses/Labs You Can Teach

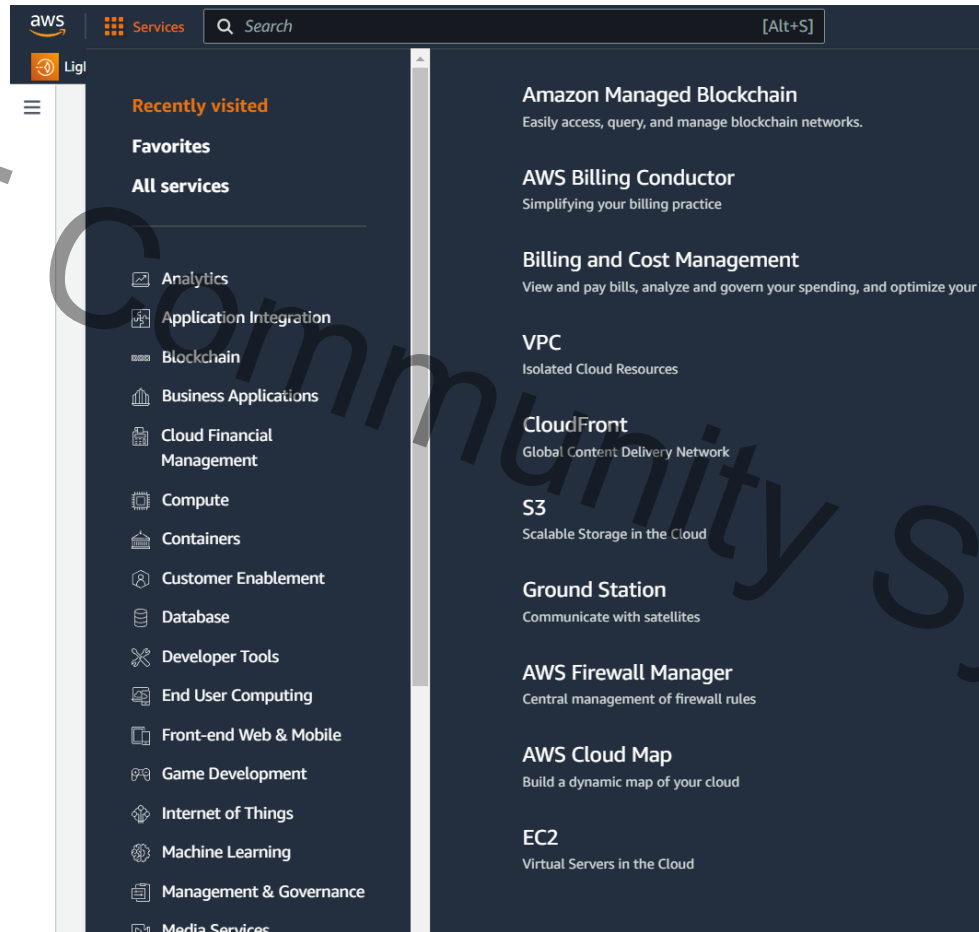
Institution	Curriculum	Curriculum Program Status
University of Arizona	Academy Cloud Foundations	Active
University of Arizona	Academy Cloud Architecting	Active
University of Arizona	Academy Cloud Operations	Active
University of Arizona	Academy Cloud Developing	Active
University of Arizona	Academy Machine Learning Foundations	Active
University of Arizona	Academy Introduction to Cloud: Semester 1	Active
University of Arizona	Academy Machine Learning for Natural Language Processing	Active
University of Arizona	Academy Introduction to Cloud: Semester 2	Active

# Learner Lab Example

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The screenshot shows the AWS Academy Learner Lab interface. The navigation menu on the left includes: Home, Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The main content area displays a terminal window with the prompt `eee_w_2622958@runweb116556:~$` and a sidebar with links: [Environment Overview](#), [Environment Navigation](#), [Access the AWS Management Console](#), [Region restriction](#), [Service usage and other restrictions](#), [Using the terminal in the browser](#), [Running AWS CLI commands](#), [Using the AWS SDK for Python](#), [Preserving your budget](#), [Accessing EC2 Instances](#), and [SSH Access to EC2 Instances](#). The top right of the interface shows a 'Start Lab' button, an 'End Lab' button, 'AWS Details', 'Readme', and 'Reset' buttons. A 'Used \$0 of \$100' indicator is also visible.

# Learner Lab Console







# Purpose of Learner Lab

- Provides access to a select number of AWS services
- Create-your-own tasks, activities, projects
- Cannot to be used as hosting platform for other vendor products
- Not suitable for intensive, long-term research projects





# Getting Started

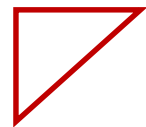
- Educator Getting Started with AWS Academy
- Learner Lab README file
- Learner Lab Educator Guide
- Complete Learner Lab compliance and security module



# Limitations

- Restricted access to AWS services; not all features/functions available in the services
- IAM service extremely constrained; use 'LabRole'
- Not all services will work together; security constraints
- Limits on number/frequency of resources that can be used
- If certain constraints are breached, students can be ejected from the
- Learner Lab and/or activities and resources wiped from the environment





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**Thank you**



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