

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

2024

CAE

Community

Symposium



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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 topic-specific AWS services	Independent, long-running, general-purpose labs
Available Services	Services required for the lab's prescribed scenario	Constrained access to over 100 AWS Services
Limitations	Resources wiped after lab ends;	Resources will be preserved until allocated credits (USD 100) run out or course ends
Use Cases	Hands-on reinforcement of concepts introduced in the course	Mid- to <i>Long</i> -term projects/sandbox WITH CONSTRAINTS
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

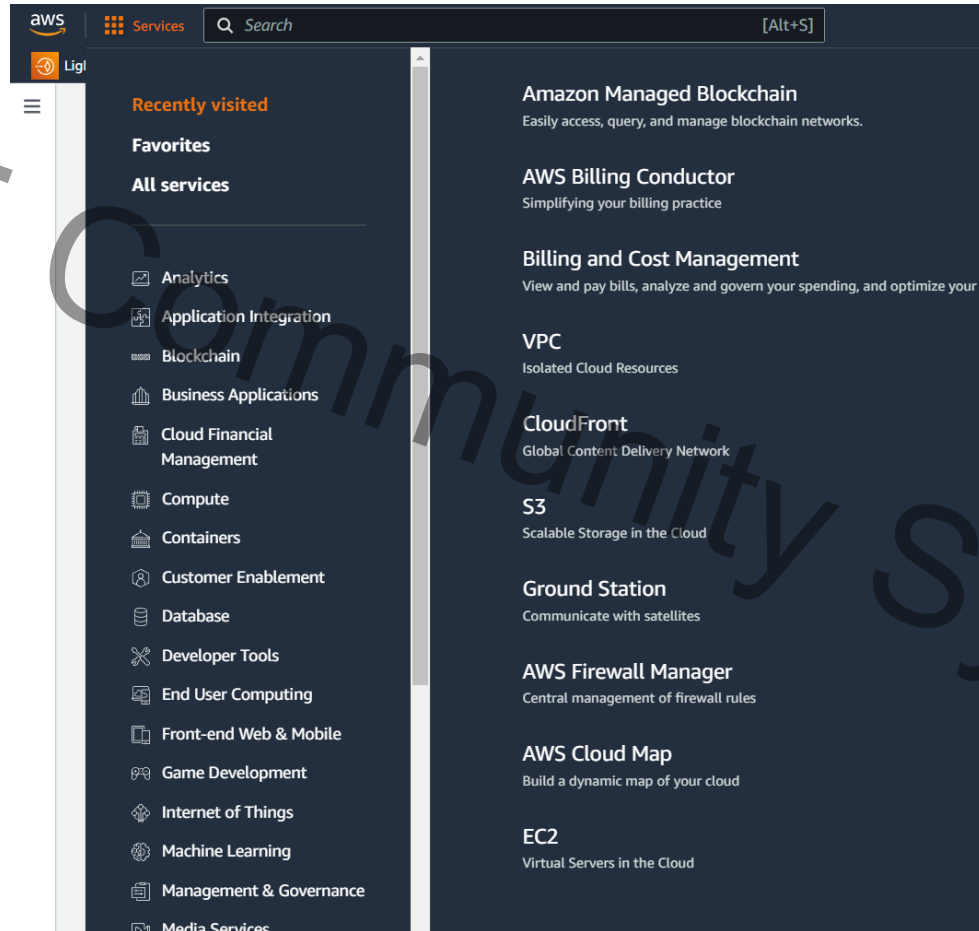
Institution	Curriculum	Curriculum Program Status
University of Arizona	Academy Cloud Foundations	Active
University of Arizona	Academy Cloud Architecting	Active
University of Arizona	Academy Cloud Operations	Active
University of Arizona	Academy Cloud Developing	Active
University of Arizona	Academy Machine 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 sidebar on the left includes options like Home, Announcements, Modules (highlighted), Discussions, Grades, Pages, Assignments, People, Rubrics, Quizzes, Syllabus, Files, Outcomes, BigBlueButton, Collaborations, Add Learners, and Settings. The main content area shows a terminal window on the left and a 'Learner Lab' overview on the right. The 'Start Lab' button and 'Used \$0 of \$100' are highlighted with red boxes.

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

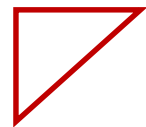
- Educator Getting Started with AWS Academy
- Learner Lab README file
- Learner Lab Educator Guide
- Complete Learner Lab compliance and security module



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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