

AWS Academy: Learner Lab

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THE UNIVERSITY
OF QUEENSLAND
A U S T R A L I A

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1 Introduction

In this course we use Amazon Web Services (AWS), as an example of a cloud based Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) environment. AWS offers a wide range of services that can be used to develop software systems. For example, they offer virtual compute resources, database storage options, and networking to tie it all together. Services are offered on a pay as you go model, meaning you only pay for the seconds you use a service.

AWS Academy provides a collection of resources to learn how to deploy and manage infrastructure on AWS. You have been enrolled in three AWS Academy courses, as well as AWS Academy Learner Lab. See the [Introduction to AWS Academy notes](#)¹ for information about how to accept your invitation to enrol and login to AWS Academy.

[AWS Academy Learner Lab](#)² will be used in practical sessions from week 4 onwards. You have a second [Learner Lab](#)³ to use for the Cloud Infrastructure assignment, so that you start with a fresh budget for the assignment. You have a budget of \$50 USD for each Learner Lab. Once you have spent a Lab's budget, you will not be able to use that Learner Lab.

2 Learner Lab

In this section, you will learn how to access and use [AWS Academy Learner Lab](#).

1. Login to the Practicals [Learner Lab \[152632\]](#). If the login takes you to your AWS Academy Dashboard, then open the AWS Academy Learner Lab [152632]. This will open the course home page.

The screenshot shows the AWS Academy Learner Lab course home page. On the left is a sidebar with icons for Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The main content area has a header "AWS Academy Learner Lab [110995]". Below the header is a large graphic of a classical building on clouds. To the right of the graphic are buttons for "View Course Stream", "View Course Calendar", and "View Course Notifications". Under "To Do", it says "Nothing for now". Under "Recent Feedback", it also says "Nothing for now". At the bottom, there is a note: "AWS Academy Learner Lab provides a long-running sandbox environment for ad hoc exploration of AWS services. Within this class, students will have access to a **restricted set of AWS services**. Not all AWS documentation walk-through or sample labs that operate in an AWS Production account will work in the Learner Lab environment. You will retain access to the AWS resources set up in this environment for the duration of this course. We limit your budget (\$50USD), so you should exercise caution to avoid overspending."

¹<https://csse6400.uqcloud.net/handouts/aws-academy.pdf>

²<https://awsacademy.instructure.com/courses/152632>

³<https://awsacademy.instructure.com/courses/152633>

2. Navigate to the Modules tab and select the link for “Launch AWS Academy Learner Lab”. You will need to accept the AWS Academy Learner Lab terms and conditions to be able to launch Learner Lab.

You should also open and browse the “AWS Academy Learner Lab Student Guide” and “Learn how to effectively use the AWS Academy Learner Lab” links, which provide information about using the lab environment.

The screenshot shows the AWS Academy Learner Lab interface. On the left is a dark sidebar with icons for Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The main area has a header "ALLv2EN-US-LTI13-110995 > Modules". A navigation bar on the left of the main content includes "Home", "Modules" (which is selected and highlighted in blue), "Discussions", "Grades", and "Lucid (Whiteboard)". A "Collapse All" button is in the top right of the main content area. The main content area contains several sections:

- Course Welcome and Overview**: Contains "Pre-Course Survey" and "AWS Academy Learner Lab Student Guide".
- AWS Academy Learner Lab Compliance and Security**: Contains "Learn how to effectively use the AWS Academy Learner Lab" and "Module Knowledge Check" (100 pts, Score at least 70.0). A "Complete All Items" button is in the top right.
- AWS Academy Learner Lab**: Contains "Launch AWS Academy Learner Lab".
- AWS Academy Learner Lab Resources**: Contains "Demo - How to Access Learner Lab", "Demo - General Troubleshooting Tips", "Demo - How to Launch Services through AWS Console", and "Learner Lab Activity - Amazon Q Developer".

3. You should now see the Learner Lab interface.

- The AWS text, near the top left of the window, with the (currently) red circle is the link to open the AWS console.
- You can see your budget usage in the same row near the top of the window. Note that the budget is not updated in real-time. Do not rely on the value it displays, if you are getting close to the \$50 budget limit.
- The 00:00 is a countdown of time remaining for your lab. A lab can only remain active for 4 hours, after which it will close, unless you press “Start Lab” again before the 4 hours expires. Once the lab is started, 00:00 will change to 04:00.
- “AWS Details” will become important later but are not needed now.
- The “Readme” button will re-open the text panel currently on the right of the terminal interface.
- The Readme text has a lot of important information, including what AWS services are available in the Learner Labs environment, please read it.
- The terminal interface is an environment with the SSH keys required to connect to AWS instances semi-automatically (we will use this today).

The screenshot shows the AWS Academy Learner Lab interface. On the left is a dark sidebar with navigation links: Home, Modules (selected), Discussions, Grades, Lucid (Whiteboard), Calendar, Inbox, History, and Help. The main area has a header with "aws academy" logo, a breadcrumb trail ("ALLv2EN-US-LTI13-152632 > Modules > AWS Academy Learner Lab > Launch AWS Academy Learner Lab"), and a top bar with "AWS" (with a red dot), "Used \$0 of \$50", a timer "00:00", and buttons for "Start Lab", "End Lab", "AWS Details", "Readme", "Reset", and a close button. Below the header is a terminal window showing a command prompt: "eee_l_5792215@runweb212175:~\$". To the right is a "Learner Lab" section with a "Environment Overview" table and a "Instructions last updated: 2025-06-24" note. At the bottom is a "Notice" box with a message about browser incognito mode.

Link	Description
Environment Overview	This Learner Lab provides a sandbox environment for ad-hoc exploration of AWS services.
Environment Navigation	This environment is long-lived.
Access the AWS Management Console	When the session timer runs to 0:00, the session will end, but any data and resources that you created in the AWS account will be retained. If you
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	
SSH Access to EC2 Instances	
SSH Access from Windows	
SSH Access from a Mac	

Notice

If you get an error message saying “`labs.vocareum.com` refused to connect”, ensure that your browser is not in the incognito mode. If you still encounter this error, try using a different browser.

4. Start the lab by clicking on “Start Lab”. It will take a few moments to get ready⁴. The red circle will turn yellow as the lab is starting, and green once it has started. Click on the AWS text with the green circle when it is available. This will open the AWS Console in a new browser tab. (You may need to enable pop-ups from awsacademy.) If you end up working for a company which uses AWS, welcome to your new home.

The screenshot shows the AWS Academy Learner Lab console home page. At the top, there's a navigation bar with the AWS logo, a search bar, and account information (Account ID: 1032-4310-0700, United States (N. Virginia) - vocabs/user4831541=Test_Student). Below the navigation bar are several service cards:

- Recently visited:** No recently visited services. Explore one of these commonly visited AWS services: EC2, S3, CloudWatch, IAM.
- Applications:** Region: US East (N. Virginia). Select Region: us-east-1 (Current Region). Create application.
- Welcome to AWS:**
 - Getting started with AWS**: Find out the fundamentals and valuable information to get the most out of AWS.
 - Training and certification**: Learn from AWS experts and advance your skills and knowledge.
 - AWS Builder Centre**: Learn, build, and connect with builders in the AWS community.
- AWS Health**: Open issues: 0 (Past 7 days). Scheduled changes: 0 (Upcoming and past 7 days). Other notifications: 0 (Past 7 days). Go to AWS Health.
- Cost and usage**: Current month: US\$0.00. Forecast month end: -. Savings opportunities: Access denied. Cost (US\$) chart for Sept 25 to Feb 26. Go to Billing and Cost Management.
- Solutions**: 13 items. Current selection: Cloud Architect (4). Other categories: Platform Engineer (4), AI Ops (4). Automate large-scale server migrations to AWS Cloud using templates.
- Explore AWS**: Get AI-ready storage, Run models at scale with cost-eff... (EC2 Trn3 UltraServer delivers the best).
- Security**: Region: US East (N. Virginia).

Explore the AWS Academy Learner Lab environment, including viewing the course content in the Modules tab. The week 4 practical worksheet⁵ provides an introduction to using AWS infrastructure. You could work through that material at your own pace, if you wish to get an early start on stage 2 of the Cloud Infrastructure assignment.

⁴Sometimes it can take several minutes for the lab to start.

⁵<https://csse6400.uqcloud.net/practicals/week04.pdf>