

AWS Academy: Learner Lab

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THE UNIVERSITY
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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 [110995] dashboard. The sidebar on the left contains navigation links: Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The main content area displays the course title 'AWS Academy Learner Lab [110995]' and a large graphic of a classical building with columns and a cloud. Below the graphic, a disclaimer states: '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'.

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 displays the AWS Academy Learner Lab interface. On the left is a dark sidebar with navigation icons for Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The top navigation bar shows the user's account ID 'ALLv2EN-US-LTI13-110995' and the 'Modules' tab. The main content area lists several modules:

- Course Welcome and Overview**
 - Pre-Course Survey
 - AWS Academy Learner Lab Student Guide
- AWS Academy Learner Lab Compliance and Security** (with a 'Complete All Items' button)
 - Learn how to effectively use the AWS Academy Learner Lab
 - Module Knowledge Check (100 pts, Score at least 70.0)
- AWS Academy Learner Lab**
 - Launch AWS Academy Learner Lab
- AWS Academy Learner Lab Resources**
 - Demo - How to Access Learner Lab
 - Demo - General Troubleshooting Tips
 - Demo - How to Launch Services through AWS Console
 - 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 displays the AWS Academy Learner Lab interface. On the left is a dark sidebar with navigation icons for Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The top navigation bar shows the breadcrumb: ALLv2EN-US-LT113-152632 > Modules > AWS Academy Learner Lab > Launch AWS Academy Learner Lab. Below this, a status bar indicates 'AWS' with a red dot, 'Used \$0 of \$50', and a '00:00' timer. Action buttons for 'Start Lab', 'End Lab', 'AWS Details', 'Readme', 'Reset', and a close icon are present. The main area is split: the left side contains a terminal window with the prompt 'eee_w_5792215@runweb212175:~\$'; the right side features a 'Learner Lab' panel with a list of 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, SSH Access to EC2 Instances, SSH Access from Windows, SSH Access from a Mac) and an 'Environment Overview' section. The overview text states: 'This Learner Lab provides a sandbox environment for ad-hoc exploration of AWS services. This environment is long-lived. 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'.

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 displays the AWS Management Console home page. At the top, there's a navigation bar with the AWS logo, a search bar, and a user profile. The main content area is divided into several sections:

- Recently visited:** A section showing no recently visited services, with links to EC2, S3, CloudWatch, and IAM.
- Applications (0):** A section for managing applications, showing the current region as US East (N. Virginia) and a 'Create application' button.
- Welcome to AWS:** A section with links to 'Getting started with AWS', 'Training and certification', and 'AWS Builder Centre'.
- AWS Health:** A section showing the status of AWS services, with 'Open issues' and 'Scheduled changes' both at 0.
- Cost and usage:** A section showing the current month's cost as US\$0.00 and a forecast for the end of the month. It includes a bar chart for 'Cost (US\$)' by month and year, with a legend for services like OpenSearch Service, EC2 - Compute, Service Catalog, Virtual Private Cloud, EC2 - Other, and Others.
- Solutions (13):** A section showing vetted solutions for various use cases, with tabs for 'Cloud Architect (4)', 'Platform Engineer (4)', and 'AI Ops (4)'.
- Explore AWS:** A section with links to 'Get AI-ready storage' and 'Run models at scale with cost-eff...'. The 'Run models at scale' link mentions 'EC2 Trn3 UltraServer delivers the best'.
- Security:** A section showing the current region as US East (N. Virginia) and a 'Security' icon.

Explore the AWS Academy Learner Lab environment, including viewing the course content in the Modules tab. The [week 4 practical worksheet](https://csse6400.uqcloud.net/practicals/week04.pdf)⁵ 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>