

Lab

Intro

In this course we follow Linus. Linus is a first year computer science student at the PXL university college. His hobbies are making music, going out and gaming.

He recently purchased Minecraft, a very popular sandbox game. He has spent hours in his own offline world and considers himself a Minecraft master. His friends also want to play the game and they often share stories about their adventures and builds.

All of them have been watching Twitch where they noticed that streamers often play together in a shared world. Intrigued by the idea of a shared world, Linus finds himself searching for options to host one of those worlds himself. He reads online that he will need a *minecraft server*. This is a computer (server) that hosts the world and to which all the players can connect to using the internet.

This is *exactly* what Linus is looking for. After doing some research he finds out that setting up such a server is not an easy task. He reads about all kinds of concepts such as Linux, Unix, chmod, apt, ... that he never heard of before. As determined as Linus is, he will not rest before setting up a minecraft server called *LinusCraft* so he can play with his friends.



This is where our story begins. In this course we will follow Linus in a set of labs where we will use and learn new concepts with the goal of setting up and maintaining a minecraft server. Before setting up this minecraft-server, he wants to advertise it via an own webserver and website.

For the labs in this course we will use [Minetest](#). This is an *open source* project that looks a lot like the real minecraft. The benefit of using Minetest is that it is free to play and support different operating systems out of the box.

Course invitation email

Linus wants to use the Cloud to host his server. He will use Amazon Web Services.

To complete the labs, we first need to set up our AWS account. The school gives you free access to AWS Cloud via the AWS Academy.

Normally you have received a *Course Invitation email* from *AWS Academy*.

Course Invitation Inbox x



AWS Academy <notifications@instructure.com>
to me ▾

8:00 AM (1 hour ago)



You've been invited to participate in the course, AWS Academy Learner Lab [36696].
Course role: Student

Name: **Demo User**

Email: pxltestuser01@gmail.com

Get Started



[Click here to view the course page.](#) | [Update your notification settings](#)

↩ Reply

➦ Forward

Click on *Get Started*.



Welcome Aboard!

You've been invited to join **AWS Academy Learner Lab [36696]**. To accept this request you need a Canvas account. Click the link below to create a Canvas account.

I Have a Canvas Account

Create My Account

A Web browser opens with the option to register for the *Course*.

Click on *Create My Account*.



Welcome Aboard!

In order to finish signing you up for the course **AWS Academy Learner Lab [36696]**, we'll need a little more information.

Login:

Password:

Time Zone:

- ☐ Yes, I'd like Canvas to provide my contact information to [Amazon Web Services\(AWS\)](#) so AWS can share the latest news about AWS services and related offerings with me by email, post or telephone.

Personal Email:

Get the latest news and offers from AWS Academy.

You may unsubscribe from receiving AWS news and offers at any time by following the instructions in the communications received. AWS handles your information as described in the [AWS Privacy Notice](#). Providing Canvas with your information may involve transferring it to another country. For questions about how Canvas will handle your information, please contact Canvas directly or refer to its privacy policy.

- ☒ I agree to the Canvas [Instructure Acceptable Use Policy](#) and to the [AWS Learner Terms and Conditions](#) The information you provide will be handled by AWS as described in the [AWS Privacy Notice](#).

Register

Create a secure password and choose *Brussels* as the Time Zone. Check *I agree ... Policy* and click *Register*.

Account
Dashboard
Courses
Calendar
Inbox
History
Help

ALLv1-36696

Home
Modules
Discussions

AWS Academy Learner Lab [36696]

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 (**\$100USD**), so you should exercise caution to prevent charges that will deplete your budget too quickly. If you exceed your budget, you will lose access to your environment and lose all of your work.

Each session lasts for **4 hours** by default, although you can extend a session to run longer by pressing the start button to reset your session timer. At the end of each session, any resources you created will **persist**. However, we **automatically shut EC2 instances down**.

View Course Stream

View Course Calendar

View Course Notifications

To Do

Nothing for now

Recent Feedback

Nothing for now

Now you enter the *Course*.

Change nickname and color of the Course

Account
Dashboard
Courses
Calendar
Inbox
History
Help

Notifications. Tell us how and when you would like to be notified of events in Canvas.
Notification Preferences

Dashboard

1

2

Color
Move
X

Nickname
Demo Course

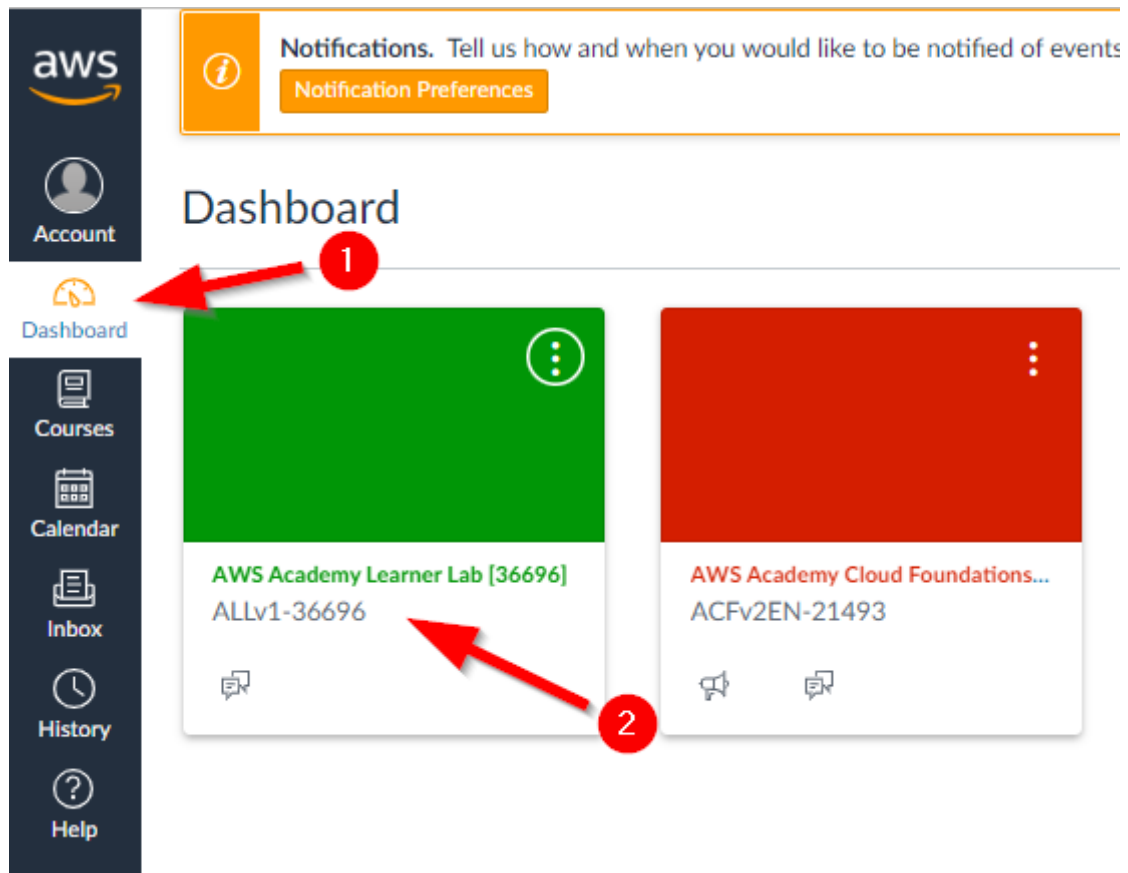
Green (#009606)

Cancel
Apply

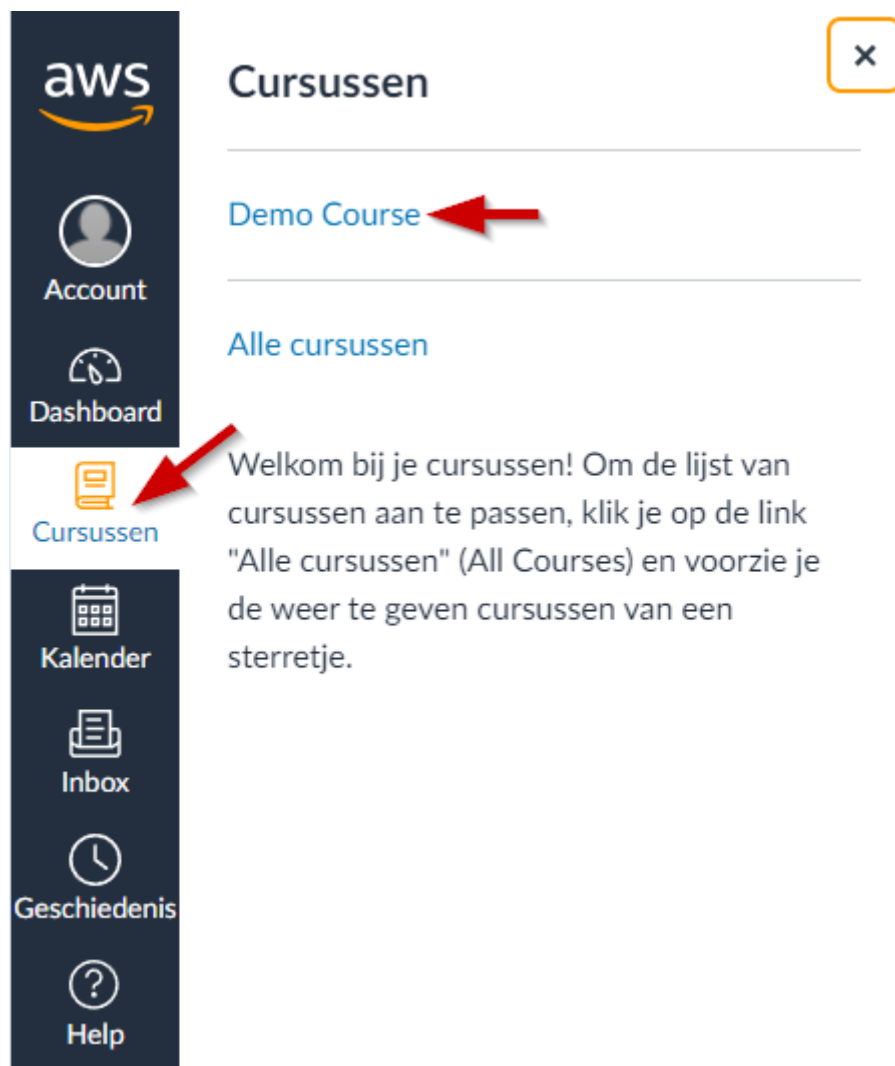
Click on *Dashboard* and then on the Course's *Hamburger Menu* to adjust the *Nickname* and *color*.

Openen van een bepaalde Cursus

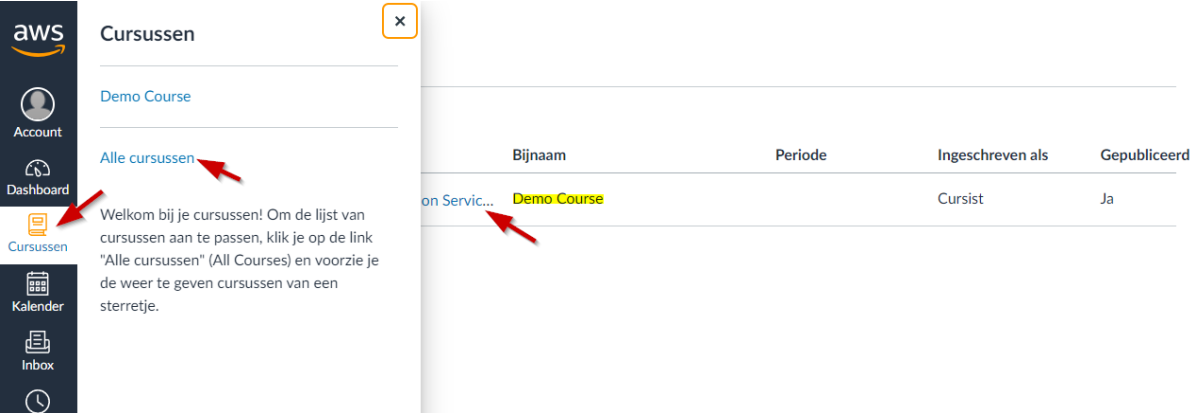
Can be done either via the *Dashboard*, or via *Courses*.



Via the *Dashboard*.



Via *Courses*.



The screenshot shows the AWS Academy interface. On the left is a sidebar with navigation links: Dashboard, Account, Cursussen (highlighted), Kalender, and Inbox. The main content area is titled 'Cursussen' and contains a 'Demo Course' link. Below this is a welcome message in Dutch. To the right, a table lists courses with columns: Bijnaam, Periode, Ingeschreven als, and Gepubliceerd. The table contains one row for 'Demo Course' with the value 'Cursist' in the 'Ingeschreven als' column. Red arrows point to the 'Cursussen' link in the sidebar and the 'Demo Course' entry in the table.

Bijnaam	Periode	Ingeschreven als	Gepubliceerd
on Servic...	Demo Course	Cursist	Ja

Via *Courses* and then *All courses*.

Inloggen als Student op Canvas

If you want to log in to the course again in the future, surf to

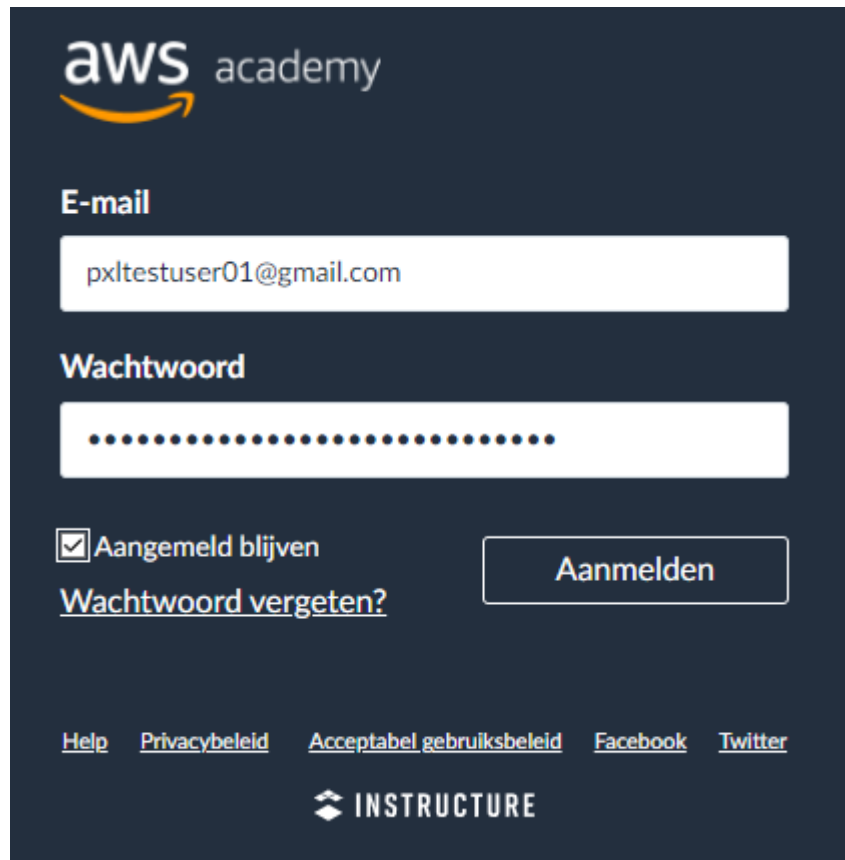
<https://awsacademy.instructure.com/>

This links to https://www.awsacademy.com/LMS_Login



The screenshot shows the AWS Academy login page. The AWS Academy logo is at the top. Below it is a 'Student Login' button, which is highlighted with a red arrow. Underneath the button is text in English: '(For students enrolled in a class)', followed by Japanese and Chinese text. Below this is an 'Educator Login' button, followed by text in English: '(For educators who have access to the AWS Academy Portal)', and then Japanese and Chinese text.

Click on *Student Login*.



The image shows the AWS Academy login interface. At the top is the AWS Academy logo. Below it, there are two input fields: 'E-mail' containing 'pxltestuser01@gmail.com' and 'Wachtwoord' (password) which is masked with dots. There is a checkbox labeled 'Aangemeld blijven' (Stay signed in) which is checked. To the right of the checkbox is a button labeled 'Aanmelden' (Sign in). Below the checkbox is a link 'Wachtwoord vergeten?' (Forgot password?). At the bottom, there are links for 'Help', 'Privacybeleid', 'Acceptabel gebruiksbeleid', 'Facebook', and 'Twitter'. The INSTRUCTURE logo is at the very bottom.

Enter your *PXL* email address as login and your *password*.

Check *Stay signed in* and click *Sign in*.

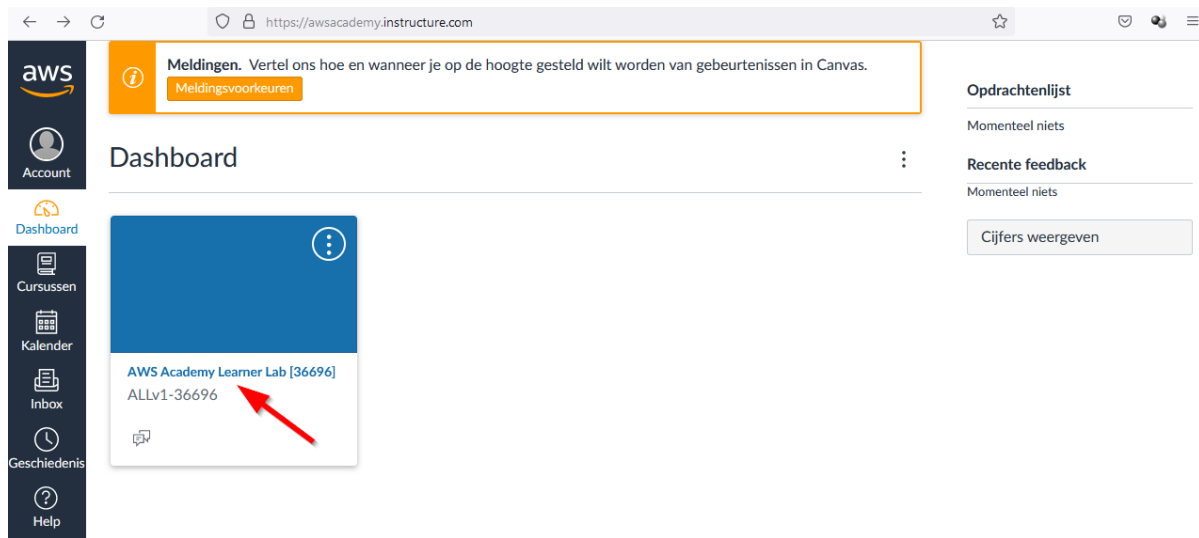


The image shows the AWS Academy dashboard. On the left is a sidebar with icons for 'Account', 'Dashboard', 'Cursussen', 'Kalender', 'Inbox', 'Geschiedenis', and 'Help'. The main area has a header with a notification bar: 'Meldingen. Vertel ons hoe en wanneer je op de hoogte gesteld wilt worden van gebeurtenissen in Canvas. Meldingsvoorkeuren'. Below the header is the title 'Dashboard'. The main content area shows a card for 'AWS Academy Learner Lab [36696]' with the ID 'ALLv1-36696'. On the right side, there are two sections: 'Opdrachtenlijst' (Assignment list) showing 'Momenteel niets' (Nothing currently) and 'Recente feedback' (Recent feedback) also showing 'Momenteel niets'. At the bottom right is a button 'Cijfers weergeven' (Show scores).

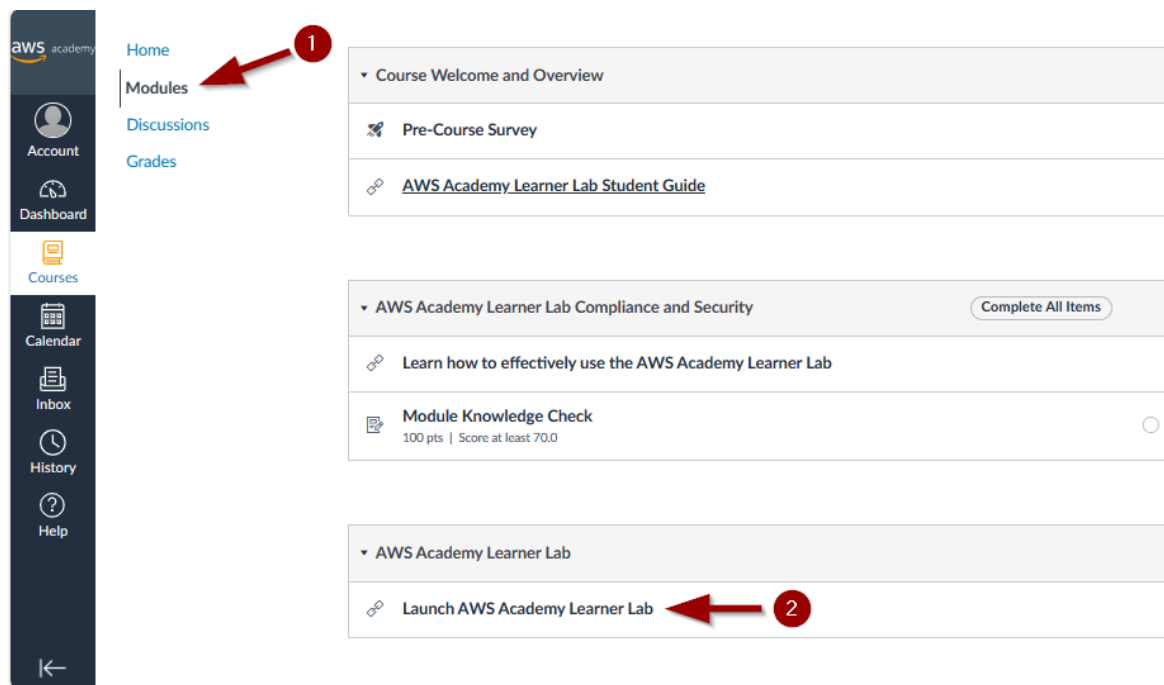
You are now logged in.

Starten van het Lab (via Vocareum)

Attention! Every time you want to use AWS Cloud in your course, you will have to go to *Courses*, then *Modules* and finally *Learner Lab*.



Get in the right Class.



In the Class, click on *Modules* and then on *Learner Lab*.

aws Demo Cou... > Modules > Learner La... > Learner Lab - Foundational Services

Home Modules Discussions

Vocareum My Classes Help Demo User

Please read the terms and conditions shown below and click on the "I agree" button at the bottom of this page to continue.

Terms and Conditions

Welcome to the Vocareum, Inc. ("Vocareum") website located at www.vocareum.com (the "Site"). Please read these Terms of Service (the "Terms") and our Privacy Policy (<http://www.vocareum.com/privacy-policy/>) carefully because they govern your use of our Site and our web-based education and learning platform. To make these Terms easier to read, the Site and our platform are collectively called the "Services."

Using the functionality of our Services, teachers can create, customize and administer educational courses and invite students to participate in a class taught and supervised by the teacher using the online tools provided by Vocareum. Subject to your compliance with these Terms, Vocareum will make the Services available to you solely for the purpose of your internal, non-commercial use.

1. Agreement to Terms

By using our Services, you agree to be bound by these Terms. If you don't agree to these Terms, do not use the Services. If you are accessing and using the Services on behalf of an educational institution (such as your employer or the educational institution in which you are enrolled) or other legal entity, you represent and warrant that you have the authority to bind that educational institution or other legal entity to these Terms. In that case, "you" and "your" will refer to that educational institution or other legal entity.

Previous Next

The first time you must approve the License Agreement. *Scroll* down and **don't** click **Next**.

aws Demo Cou... > Modules > Learner La... > Learner Lab - Foundational Services

Home Modules Discussions

Vocareum My Classes Help Demo User

the "Arbitration" section above or by court of competent jurisdiction, if you opt out of arbitration by sending us an Arbitration Opt-out Notice in accordance with the terms set forth above), that provision will be enforced to the maximum extent permissible and the other provisions of these Terms will remain in full force and effect.

You may not assign or transfer these Terms, by operation of law or otherwise, without Vocareum's prior written consent. Any attempt by you to assign or transfer these Terms, without such consent, will be null. Vocareum may freely assign or transfer these Terms without restriction. Subject to the foregoing, these Terms will bind and inure to the benefit of the parties, their successors and permitted assigns.

Any notices or other communications provided by Vocareum under these Terms, including those regarding modifications to these Terms, will be given: (i) via email; or (ii) by posting to the Services. For notices made by e-mail, the date of receipt will be deemed the date on which such notice is transmitted.

Vocareum's failure to enforce any right or provision of these Terms will not be considered a waiver of such right or provision. The waiver of any such right or provision will be effective only if in writing and signed by a duly authorized representative of Vocareum. Except as expressly set forth in these Terms, the exercise by either party of any of its remedies under these Terms will be without prejudice to its other remedies under these Terms or otherwise.

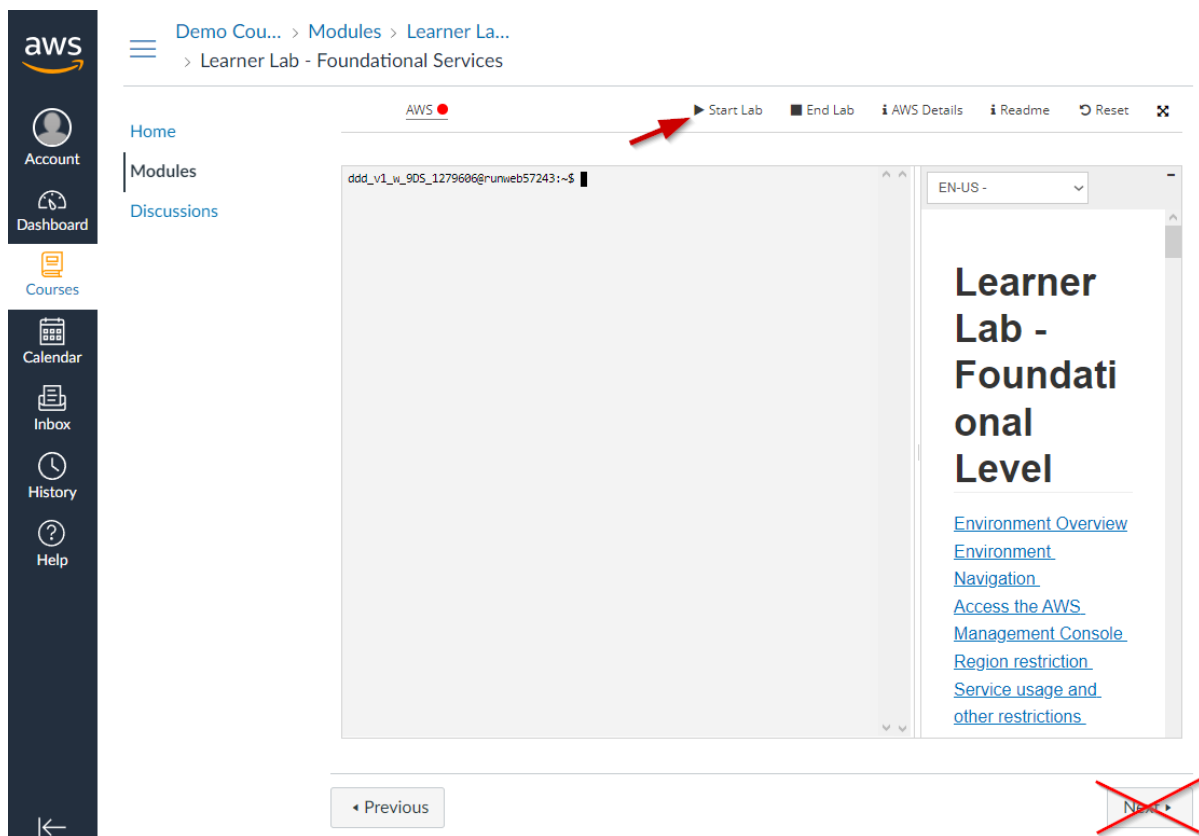
Contact Information

If you have any questions about these Terms or the Services, please contact Vocareum at info@vocareum.com

I Agree Next

Previous

Click **I Agree** and **not Next**.



Click on *Start Lab* and **not** on *Next*.

The *Lab* is being started. This will take several minutes. As soon as the lab is fully started, we see a green dot behind *AWS*

There is now also a clock running behind *AWS*. This indicates how long the servers will be *up and running*. It starts counting down from four hours remaining. You can always click *Start Lab* again to reset the timer to four hours.

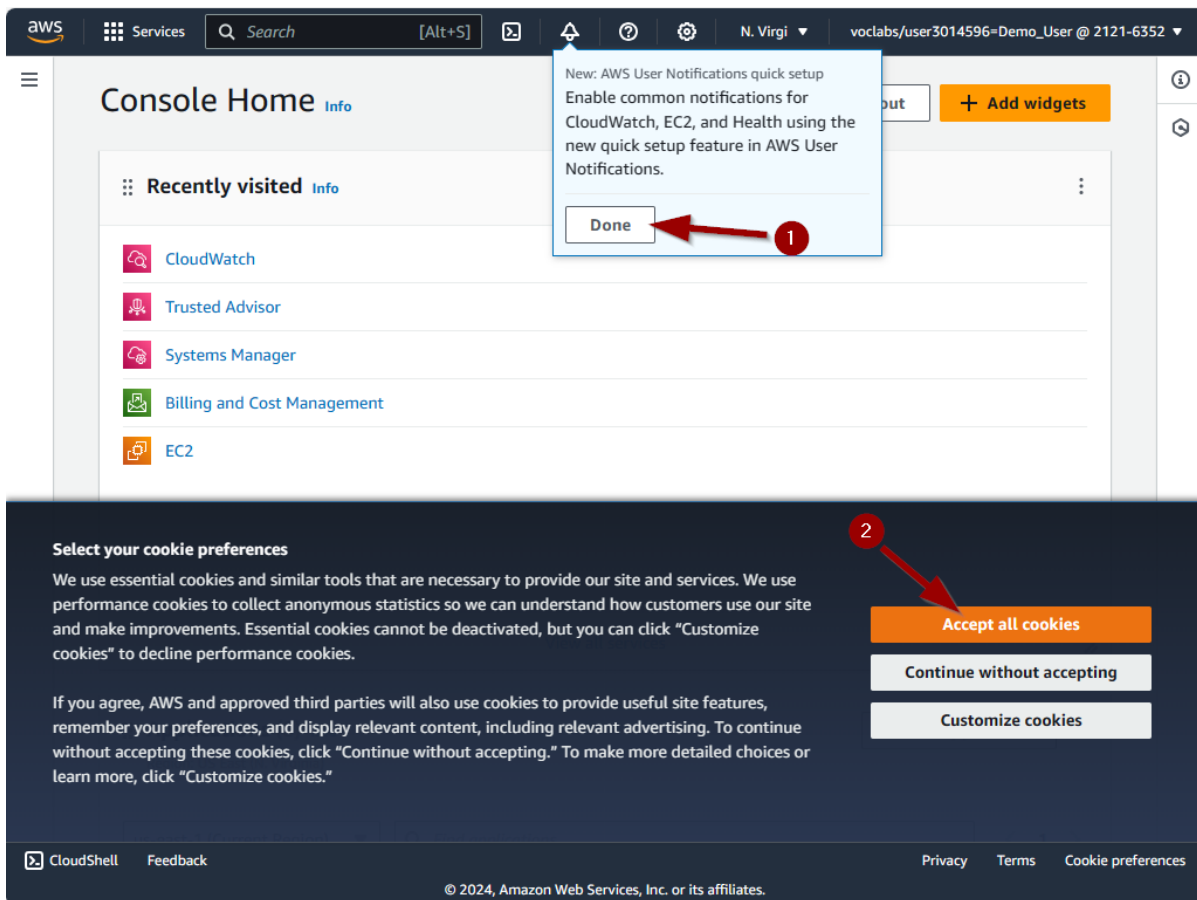
After four hours the servers will be shut down, but can simply be restarted at a later time by clicking *Start Lab* again.

We also see how much of our \$100 (\$50 in the future) has already been spent. This may have a delay of about 8 hours.

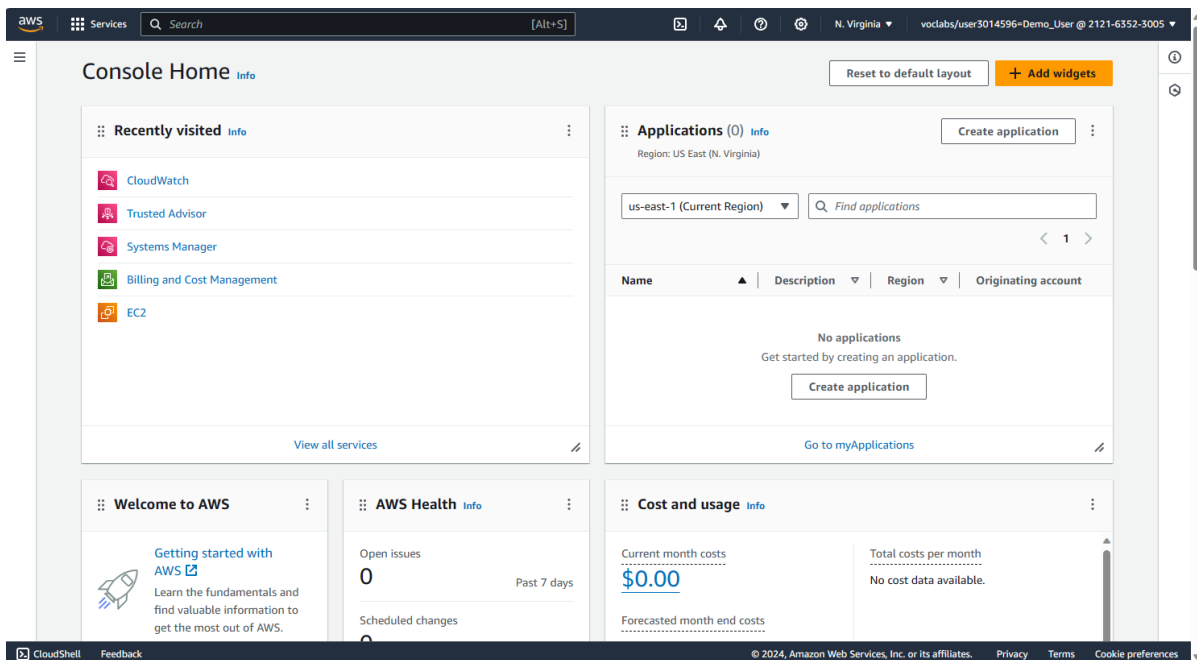
Attention! Once you have used up the entire money, you will no longer be able to do anything on the Cloud Platform.

Click on **AWS** to go to the *AWS Cloud Platform*.

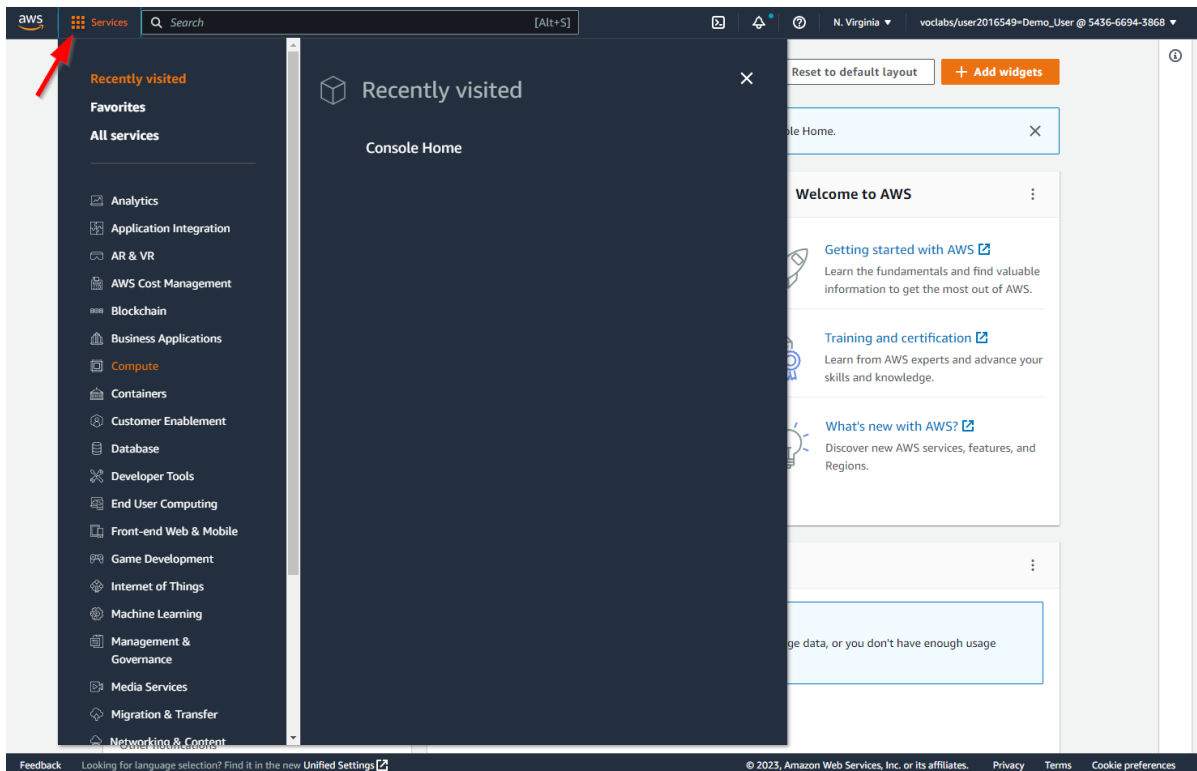
If a new tab is not opened, it is blocked by your web browser. You must then allow this for this website. Below is an example with the Firefox web browser.



Click on *Accept all cookies* and on *Next*.



We are ready to start working.

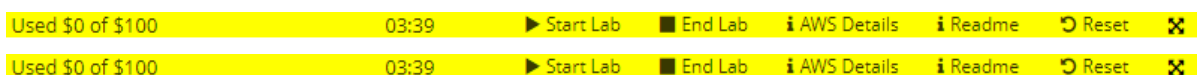


We will use some of these *MenuItems* in this course.

Vocareum AWS Details

The gray box with Interface is a terminal window and can be used, for example, to fire AWS CLI commands or Python code (via an AWS SDK). Or connect to your Instances (=Servers) with SSH.

At the top we also find some useful buttons. Below an overview



AWS : By clicking on this text we navigate to AWS Management Console. It is through this interface that we create a Cloud Infrastructure can start setting up. Tip! If there is no new tab open, click on the text at the top of the window to get *Popups* to allow

Used \$0 till \$100 : How much budget you have already used. Attention! This just keeps changing updated every 8 to 12 hours

03:39 : Remaining time until the Cloud infrastructure is brought down. You can then click on *Start Lab* again to restart the infrastructure. Tip! You can click *Start Lab* again at any time to restart the timer to be brought back to four hours

Start Lab : To (re)start the Cloud Infrastructure. Some services will have to be restarted manually

End Lab : To bring down the Cloud Infrastructure. You can do these afterwards restart with *Start Lab*

AWS Details : Shows how long the Cloud infrastructure has now and in total turned. Also provides the opportunity to use your personal SSH keys view/download

Readme : Contains links to pages explaining how the *AWS Cloud Platform*

Reset: Everything on AWS under your account (= linked to this course) will be reset reset. In other words, everything you've ever done ends AWS removed from this account. You don't get any money spent budget back.

☒ : To maximize the Vocareum window. To undo this press the *Esc* key