

# Register with Cloud Providers: AWS, AWS Educate, Microsoft Azure

**Objective:** Preparing for the upcoming practical works by getting register with Cloud Providers: AWS, AWS Educate, Microsoft Azure.

## Tasks:

1. Sign up for AWS Free Tier account
2. Register with Amazon Educate
3. Register for Microsoft Azure Free Student Account
4. Create [gitlab](#) or [github](#) account

## Lab environment:

- Web browser

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# ***Preparation***

Use your **UNIVERSITY EMAIL ACCOUNT** to sign in for AWS and Microsoft Azure accounts. The trial accounts are free and offer a number of services free of charge for 1 month/year/forever.

Nevertheless, you might be asked to provide **CREDIT CARD DETAILS** to verify yourself. You **will not be charged UNLESS** explicitly select and agree to use a paid service or exceed the free limits (e.g. 750 hours of t2.micro Amazon EC2 instance per months). Thus, keep an eye on the resources used and do not exceed the specified limits, which are much more than it is necessary to complete the labs.

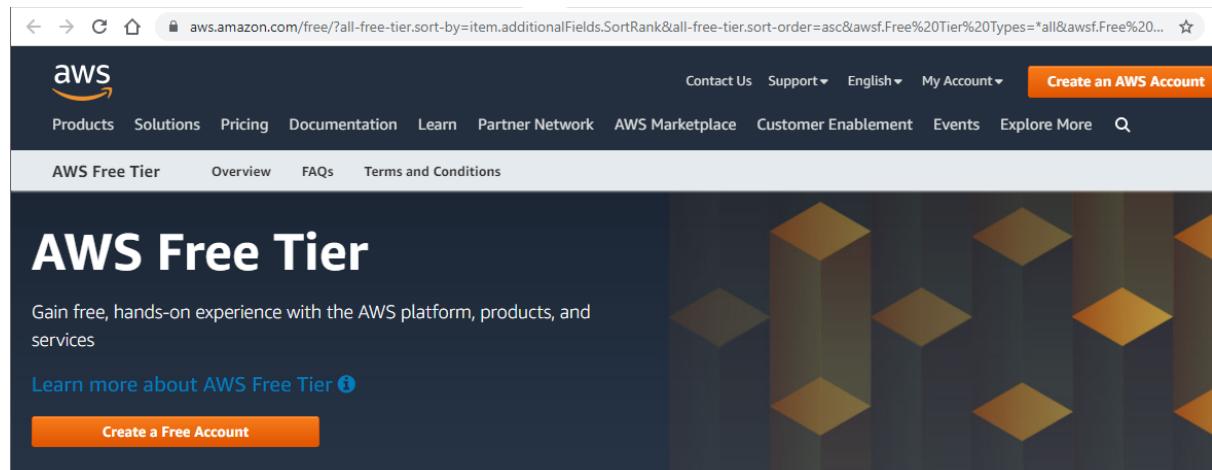
The best way to do this is to delete all created resources (e.g. VMs, disks, environments) after you complete the lab! The staff will not be responsible for your financial expenses caused by the above reasons!

Microsoft Azure will authenticate you via the university log in service using MFA. You will need to remember passwords for AWS and AWS Educate accounts.

## ***Task 1: Sign up for AWS Free Tier account***

### **Create a free tier AWS account**

Create a free tier AWS account which will give you 12 months free access to almost all AWS resources following this guide: <https://aws.amazon.com/free/free-tier/>



### **Set MFA for AWS account root user**

When you first create an Amazon Web Services (AWS) account, you begin with a single sign-in identity that has complete access to all AWS services and resources in the account. This identity is called the AWS account root user. You can sign in as the root user using the email address and password that you used to create the account. It is a good practice to set up MFA (e.g. using Microsoft Authenticator app) to secure your AWS root user account: [https://console.aws.amazon.com/iam/home#/security\\_credentials\\$mfa](https://console.aws.amazon.com/iam/home#/security_credentials$mfa)

The screenshot shows the AWS Identity and Access Management (IAM) console at the URL [console.aws.amazon.com/iam/home#/security\\_credentials\\$mfa](https://console.aws.amazon.com/iam/home#/security_credentials$mfa). The left sidebar has a dark header with the AWS logo and 'Services' dropdown. Below it, under 'Identity and Access Management (IAM)', are links for 'Dashboard', 'Access management' (which is expanded to show 'User groups', 'Users', 'Roles', 'Policies', and 'Identity providers'), and other sections like 'AWS Single Sign-On', 'AWS Lambda', and 'AWS CloudTrail'. The main content area is titled 'Your Security Credentials' and contains instructions: 'Use this page to manage the credentials for your AWS account.' It also says 'To learn more about the types of AWS credentials and how to use them, see the AWS IAM User Guide.' A section titled 'Multi-factor authentication (MFA)' is shown, with a note: 'Use MFA to increase the security of your AWS environment.' A table header is visible, showing columns for 'Device type' and 'Serial number'.

## Create an IAM admin user for your AWS account

It is strongly recommended that you [do not use the root user for your everyday tasks](#), even the administrative ones. Instead, adhere to the [best practice of using the root user only to create your first IAM user](#) (AWS Identity and Access Management (IAM) is a service which enables you to manage access to the rest AWS services and resources securely). Then securely lock away the root user credentials and use them to perform only a few account and service management tasks.

Follow this tutorial to set up an administrator for daily use: [Creating your first IAM admin user and user group](#).

<https://console.aws.amazon.com/iamv2/home#/users>

The screenshot shows the AWS IAM Users list page. On the left, there's a sidebar with 'Identity and Access Management (IAM)' selected. The main area has a blue header bar with an info icon and text: 'Introducing the new Users list experience' and 'We've redesigned the Users list experience to make it easier to use. [Let us know what you think.](#)'. Below this, the page title is 'IAM > Users'. The main content area shows a table with one row for 'Users (0)'. A search bar at the top of the table says 'Find users by username or access key'. To the right of the table are buttons for 'Delete' and 'Add users'. At the bottom of the table are buttons for sorting by 'User name' and 'Groups'. The URL in the browser bar is https://console.aws.amazon.com/iamv2/home#/users.

## Add user

1 2

### Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name\*

Tony

[+ Add another user](#)

### Select AWS access type

Select how these users will primarily access AWS. If you choose only programmatic access, it does NOT prevent users from accessing an assumed role. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Select AWS credential type\*

**Access key - Programmatic access**

Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

**Password - AWS Management Console access**

Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password\*

Autogenerated password

Custom password

.....

Show password

Require password reset

User must create a new password at next sign-in

Users automatically get the **IAMUserChangePassword** policy to allow them to change their own password.

Follow the rest steps as instructed.

After you create an IAM user you can check sign-in credentials in the User's 'Summary' tab of the Identity and Access Management (IAM):

The screenshot shows the 'Summary' tab for a newly created IAM user. Key details include:

- User ARN: arn:aws:iam::[REDACTED]:user/[REDACTED]
- Path: /
- Creation time: 2021-10-03 16:39 UTC+0100

The 'Security credentials' tab is selected, showing:

- Sign-in credentials:
  - Console sign-in link: https://[REDACTED].signin.aws.amazon.com/console
- Console password: Enabled (never signed in) | Manage
- Assigned MFA device: Not assigned | Manage
- Signing certificates: None

You can copy and use the link above to login to AWS management console not as a root user, but as an IAM admin user which is more secure.

You will also be able to see and download user credentials. This includes **aws\_access\_key\_id** and **aws\_secret\_access\_key** which are needed to deploy your applications on clouds (this is in addition to IAM user password).

!!! Download credentials as .csv file and save it (e.g. email to yourself) for the future use.

A success message is displayed:

**Success**  
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://604421567424.signin.aws.amazon.com/console>

Download options:

- Download .csv

	User	Access key ID	Secret access key	Email login instructions
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Sometimes you will need to configure the AWS browser which is a part of IDE (Visual Studio or Eclipse). With this purpose you will need to refer to your IAM user credentials (**aws\_access\_key\_id**, **aws\_secret\_access\_key**) and copy/paste them into **%USER\_HOME%/.aws/credentials** file on your PC/VM.

```
[default]
aws_access_key_id=ASIAZP02LJ3B2NAW9PCZ
aws_secret_access_key=B0@uLZ9kNnPh3N95c8kuFx5AH83tQ9HwF/c1dKuH
```

## ***Task 2: Register with Amazon Educate***

### **Create a free tier AWS account**

AWS Educate is a grant program for educators, academic researchers and students.

The program augments Amazon's efforts to increase awareness of its public cloud services in the educational community. Qualified students can earn a series of Amazon Web Services (AWS) certifications, gaining important proficiencies as they enter the information technology (IT) workforce. AWS Educate

AWS used to grant students a \$100 credit for an active AWS account. However, it has terminated access to AWS Console and other AWS resources via AWS Educate for students since 2021. So, to be able to complete labworks you need to create a free tier AWS account which will give you 12 months free access to almost all AWS resources (see Task 1).

Though, AWS Educate can still be used by students to get access to extra tutorials and standalone lab tasks offered by Amazon.

Create your own AWS educate account at <https://aws.amazon.com/education/awseducate/>.

Use your [KhAI email](#) for registration and provide other requested details (your first name and surname, university name, etc.). You will get 100 points credit to be spent within a year. Follow the instruction and check your email for confirmation. This can take a day or two.

Use 'Join AWS Educate'; do not click on 'Create an AWS Account' in the top-right corner (this will create a commercial AWS account).

AWS Educate

Contact Sales Support English My Account

Products Solutions Pricing Documentation Learn Partner Network AWS Marketplace Customer Enablement > Q

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Testimonials Media FAQs

aws educate

Your Cloud Journey Starts Here

Join AWS Educate

Sign in to AWS Educate

## Signing in AWS Educate

Sign into AWS Educate account at <https://www.awseducate.com/signin/>

Here you can select the lab you are interested in and follow the instructions to complete it, take a quiz and progress towards AWS certification as a part of your independent learning.

aws educate

Your cloud journey starts here

No matter your goal, we've gathered the most useful content to build your cloud skills.

In progress

Getting Started with Compute (Lab) 60% Foundational | 2 Cloud Computing

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Getting Started with Compute (Lab) Foundational | 2 60%

Introduction to the AWS Management Console Foundational | 1

Builder Labs Intermediate | 6

Introduction to Cloud 101 (Labs) Foundational | 8

Filters

Course Features

Badge Lab

Topic

Analytics Cloud Computing Development Machine Learning & AI Network & Infrastructure Professional skills Security

Level

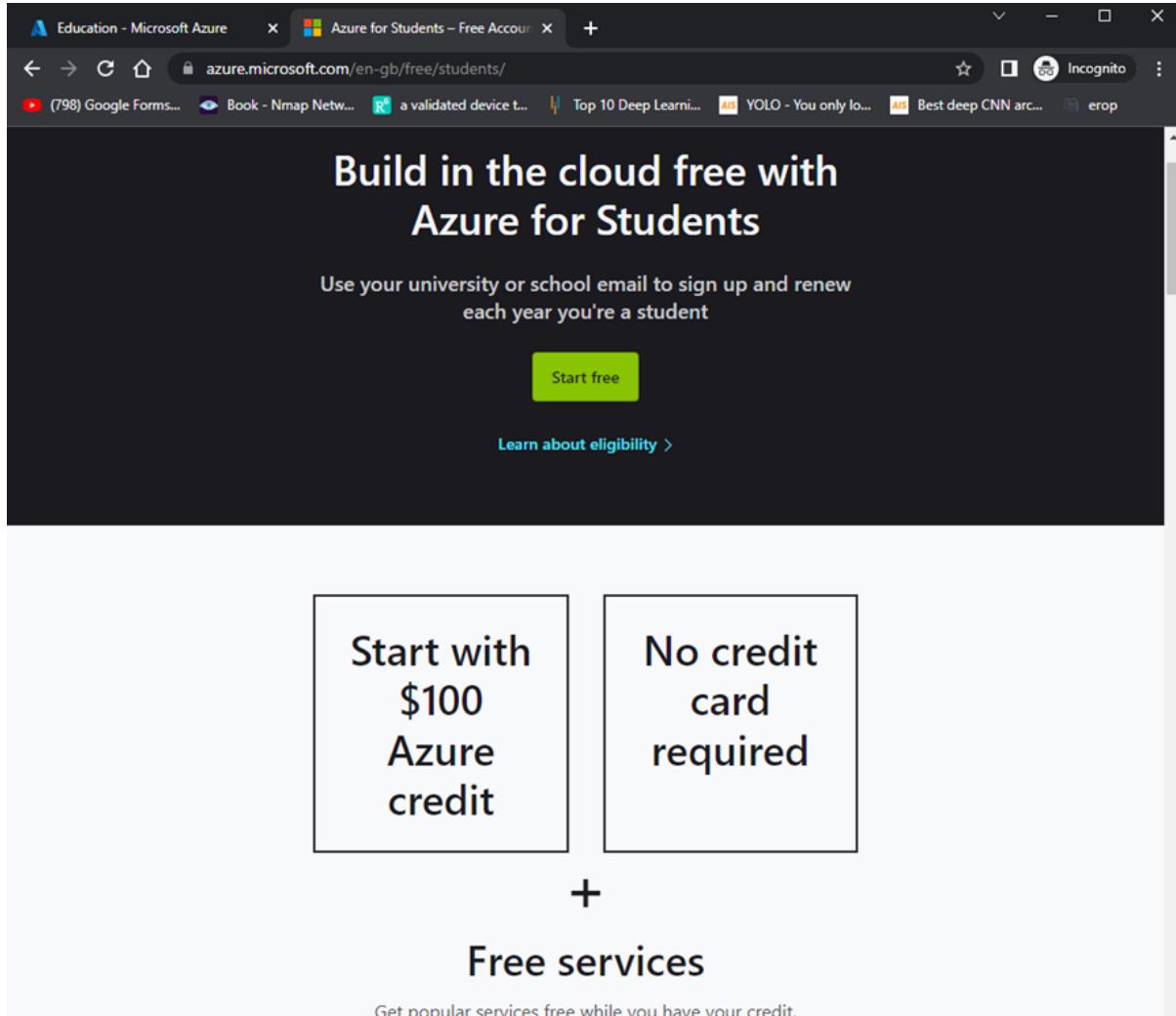
Foundational Intermediate Advanced

Duration

Less than 1 hour

## ***Task 3: Register for Microsoft Azure Free Account***

Register for Microsoft Azure Free Account using your university email at <https://azure.microsoft.com/en-gb/free/students/>. The trial account is free and offers a number of services free of charge for 1 year/forever. Take your time to explore the details.



## ***Task 4: Register for GitLab or GitHub***

It is required to create Gitlab or GitHub account for future lab works. *You should create and push to source control system report (includes link to source control system account) with appropriate screenshots (evidence of previous tasks) in .md format. In turn, report should be attached to Google Class as a PDF file. Structure: lab1/report.md; lab2/report.md and etc.*