



UNIVERSIDADE FEDERAL DO CEARÁ  
Campus Quixadá  
Curso: Redes de Computadores  
Disciplina: Administração de SO Windows

# **Aula extra – Introdução à Amazon AWS e ao Programa AWS Educate**

Prof. Rafael Braga

# Introdução

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- O que é a Amazon AWS?
  - Plataforma de serviços *web* que oferece soluções de computação, armazenamento e rede em diferentes camadas de abstração
  - hospedagem de *sites*, aplicações empresariais e mineração de dados (inteligência artificial)
  - Serviços básicos: EC2 e S3
  - *Datacenters* espalhados pelo mundo inteiro
- AWS é uma nuvem pública
  - Qualquer um pode ter acesso
  - Tem como base uma estrutura de IaaS, mas também há serviços PaaS e SaaS

# Como conseguir acesso gratuito a AWS?

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- Antes de falar da nuvem, como conseguir o acesso?
- Existem três maneiras
  - Nível gratuito
  - Usando créditos do programa AWS Educate
  - Fazendo parte de uma sala de aula no programa AWS Educate
- Qualquer uma das opções é suficiente para boa parte dos casos

AWS Services Supported with



Starter Account

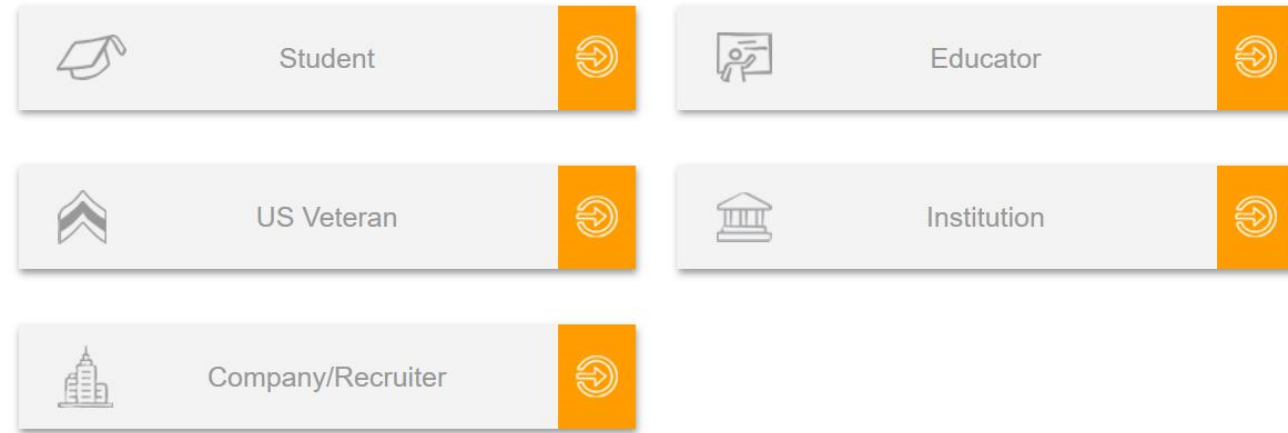
# Nível Gratuito

- Disponível para qualquer conta criada em <https://aws.amazon.com/pt/>
- Qualquer indivíduo pode criar a **conta básica**
- É preciso fornecer um número de cartão de crédito
  - Só será cobrado se passar do limite
  - Em termos de aprendizado, é muito difícil passar do limite (os limites são por **mês**)
  - 750 horas por mês dá para deixar um servidor ligado todos os dias, por um ano
- Também é preciso fornecer um número de telefone
  - Eles manda um SMS para confirmação
  - Só faça no campus se sua operadora tiver sinal!!!
- Pode usar qualquer endereço de e-mail

<p>Nível gratuito 12 MESES GRATUITOS</p> <p>Amazon EC2</p> <p><b>750 horas</b></p> <p>por mês</p> <p>Capacidade computacional redimensionável na nuvem.</p> <p>750 horas por mês de uso de instância</p>	<p>Nível gratuito 12 MESES GRATUITOS</p> <p>Amazon S3</p> <p><b>5 GB</b></p> <p>de armazenamento padrão</p> <p>Infraestrutura de armazenamento de objetos segura, durável e escalável.</p> <p>5 GB de armazenamento padrão</p>	<p>Nível gratuito 12 MESES GRATUITOS</p> <p>Amazon RDS</p> <p><b>750 horas</b></p> <p>por mês de uso do banco de dados db.t2.micro (mecanismos de banco de dados)</p> <p>Serviço de banco de dados relacional gerenciado para MySQL, PostgreSQL, MariaDB, Oracle BYOL ou SQL Server.</p>
<p>BANCO DE DADOS</p> <p>Nível gratuito SEMPRE GRATUITO</p> <p>Amazon DynamoDB</p> <p><b>25 GB</b></p> <p>de armazenamento</p> <p>Banco de dados NoSQL rápido e flexível, com escalabilidade transparente.</p>	<p>MACHINE LEARNING NOVO</p> <p>Nível gratuito TESTE GRATUITO</p> <p>Amazon SageMaker</p> <p><b>250 horas</b></p> <p>por mês de uso de t2.medium notebook pelos primeiros dois meses</p> <p>Plataforma gerenciada para criar, treinar e implantar modelos de Machine Learning</p>	<p>COMPUTAÇÃO</p> <p>Nível gratuito SEMPRE GRATUITO</p> <p>AWS Lambda</p> <p><b>1 milhão</b></p> <p>solicitações gratuitas por mês</p> <p>Serviço de computação que executa o seu código em resposta a eventos e gerencia automaticamente os recursos computacionais</p>

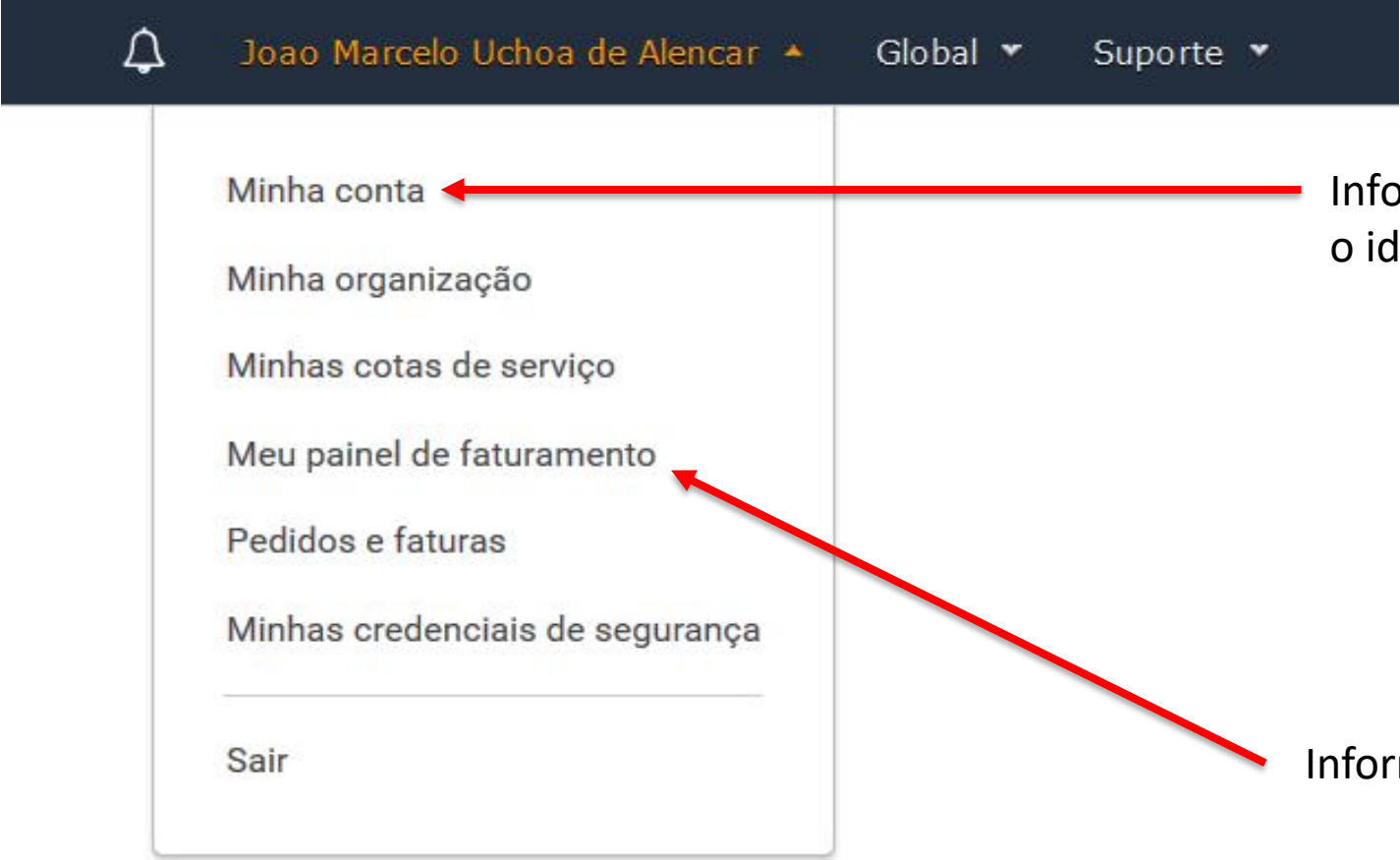
# Usando Créditos do Programa AWS Educate

- Uma vez que tiver a conta da AWS configurada, além do nível gratuito, podemos receber créditos do AWS Educate
  - É necessário já ter uma conta na AWS (pode ser necessário o número *AWS Account ID*)
  - Você faz o cadastro no AWS Educate
    - <https://aws.amazon.com/pt/education/awseducate/>
    - **Educator** (Professor): escolher **Federal University of Ceará** como instituição, usar e-mail **@ufc.br**
    - **Student** (aluno):
    - Escolher **Universidade Federal do Ceara – Quixada** como instituição, usar e-mail **@alu.ufc.br**
  - Você receberá um e-mail com um código de créditos para inserir na sua conta.
- Professores recebem US\$ 200 e alunos US\$ 100
- O nível gratuito só dura **1 ano**
- Os créditos da AWS são renovados a **cada ano**



Se requisitar algum documento comprovação, basta enviar um histórico (alunos) ou o site do campus  
<http://www.quixada.ufc.br/docente> (professores)

# Usando Créditos do Programa AWS Educate – Informações de Cobrança na Conta da AWS



The screenshot shows the AWS account menu. The top bar is dark blue with a bell icon, the user name 'Joao Marcelo Uchoa de Alencar', and links for 'Global' and 'Suporte'. The dropdown menu is white and contains the following items: 'Minha conta', 'Minha organização', 'Minhas cotas de serviço', 'Meu painel de faturamento', 'Pedidos e faturas', 'Minhas credenciais de segurança', and 'Sair'. Two red arrows point from text labels to specific menu items: one from 'Informações Gerais, incluindo o identificador da conta' to 'Minha conta', and another from 'Informações sobre créditos' to 'Meu painel de faturamento'.

Minha conta ← Informações Gerais, incluindo o identificador da conta

Minha organização

Minhas cotas de serviço

Meu painel de faturamento ← Informações sobre créditos

Pedidos e faturas


Minhas credenciais de segurança

Sair

# Usando Créditos do Programa AWS Educate - Aluno

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<input type="text" value="Universidade Federal do Ceara - Quixada"/> <small>Start typing the name of your school and select from the list. If you don't see your school, enter the full name, example: Harvard University</small>	<input type="text" value="Brazil"/>
<input type="text" value="First Name"/>	<input type="text" value="Last Name"/>
<input type="text" value="@alu.ufc.br"/> <small>Please provide a valid, current email issued by your institution. Example: your_name@your_school.edu</small>	<input type="text" value="Graduation Month"/> <input type="text" value="Graduation Year"/>
<input type="text" value="Birth Month"/> <input type="text" value="Birth Year"/>	<input type="text" value="Promo Code (optional)"/>



Também forneça o **mês** e o **ano** que você espera de se formar.

# Usando Créditos do Programa AWS Educate – Confirmar Submissão

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From: **AWS Educate Support** <[support@awseducate.com](mailto:support@awseducate.com)>

Date: Fri, Aug 16, 2019 at 9:20 AM

Subject: Email Verification - AWS Educate Application

To: [REDACTED]

Hello Joao,

Thank you for submitting your AWS Educate application!

In order for your AWS Educate application to be processed, we need to verify your email address. Please use the verification URL below to confirm you

[https://www.awseducate.com/ConfirmEmail?ref=c\[REDACTED\]](https://www.awseducate.com/ConfirmEmail?ref=c[REDACTED])

Thank you,

The AWS Educate Team

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Clicando no link, confirmará a submissão, que ainda precisará ser aprovada pela AWS.



# Usando Créditos do Programa AWS Educate – Recebendo os Créditos

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Hi Joao,

Dear Joao,

Congratulations!

Your AWS Educate application has been approved. As a member of the AWS Educate program, you will gain access to the benefits listed below:

## **AWS Educate Educator Collaboration Portal (ECP)**

The ECP is the hub for AWS Educate educators around the world to find great content on cloud computing, learn about the program, and interact. [Click here](#) to set your password and login to the ECP for the first time. Your username is your email address. After logging in, click AWS Account at the top of the page to access AWS services, whether you entered an AWS ID or selected Starter Account on your application. Note that Starter Accounts are not eligible for AWS Free Tier.

[Click here](#) to access the ECP directly in the future after updating your password.

## **AWS Promotional Credit**

It's our pleasure to issue you an Amazon Web Services (AWS) promotional credit code in the amount listed below.

Credit Amount (US): \$200.00

Credit Code: XXXXXXXXXXXXXXXX

Here's how to redeem your promotional credit:

- Step 1: Visit: <https://console.aws.amazon.com/billing/home#/credits>
- Step 2: Follow the instructions and enter your promo code.

## **Free AWS Cloud Practitioner Essentials and 50% discount on Instructor-Led Training**

To access our foundational AWS Cloud Practitioner Essentials online learning class for free, get your 50% discount on Instructor-Led Training, and find many other self-paced labs, first sign into to your AWS account and then [click here](#).

Once you access the Training and Certification portal, click "Learning Library" and search for "Cloud Practitioner Essentials" to easily locate and enroll in AWS Cloud Practitioner Essentials on-line training. You can also search for instructor-led training and browse the full training catalog. You can access AWS training any time after setting up your account by clicking [here](#).

# Salas de Aula no Programa AWS Educate

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- A desvantagem das opções anteriores (nível gratuito ou créditos da AWS Educate) é a necessidade uma conta da Amazon (cartão de crédito)
- Um professor já cadastrado no AWS Educate pode criar Salas de Aula (*classrooms*) para os alunos
  - Os alunos não precisam de cartão de crédito, apenas um e-mail institucional (**@alu.ufc.br**)
  - O acesso é mais restrito do que no nível gratuito, mas suficiente para aprender a usar a nuvem
- O professor cadastra o e-mail do aluno, que recebe um e-mail de confirmação.

# Salas de Aula no Programa AWS Educate – E-mail de Confirmação

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**AWS Educate Support** <support@awseducate.com>

sáb, 31 de ago 14:10 (há 1 dia)

para eu ▾

🌐 inglês ▾ > português ▾ [Traduzir mensagem](#)

[Desa](#)

Hi -

Your educator has invited you to join AWS Educate and access a "Classroom" for your course work. A "Classroom" is a hands-on learning environment for you to access AWS services and practice AWS. ' fees to access a Classroom.

Classrooms are managed by a third-party content and service provider, Vocareum ("Third-Party Content Provider"), and use of the Classroom feature is governed by the Third-Party Content Provider's terms (including its Privacy Policy) in addition to the AWS Educate Terms and Conditions.

If you accept the Classroom invitation, the Third-Party Content Provider may allow your educator to view your Classroom account and activity, including the AWS console in your Classroom account, the number of instances running and any Content running in the services, and your access activity.

Click [here](#) to complete the AWS Educate application process, accept your Classroom invitation and receive access to program benefits, including cloud career learning pathways and AWS Educate Promo Starter Account, where applicable.

If you do not wish to proceed, ignore this email.

Thank you,

AWS Educate

# Salas de Aula no Programa AWS Educate – Formulário

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<div>Universidade Federal do Ceara - Quixada</div> <div><small>Start typing the name of your school and select from the list. If you don't see your school, enter the full name, example: Harvard University</small></div>	<div>Brazil</div>
<div>Aluno Teste</div>	<div>do Campus de Quixadá</div>
<div>alunoufc@quixada.ufc.br</div> <div><small>Please provide a valid, current email issued by your institution. Example: your_name@your_school.edu</small></div>	<div>12</div> <div>2020</div>
<div>1</div> <div>1997</div>	<div>Promo Code (optional)</div>

[Frequently Asked Questions](#)

# Salas de Aula no Programa AWS Educate – Formulário

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communications and notices made or given pursuant to this Agreement must be in the English language. If we provide a translation of the English language version of this Agreement, the English language version of this Agreement will control if there is any conflict.

## 10.0. CONTRACTING ENTITY

Notwithstanding anything to the contrary in these Terms:

**10.1 India Customers.** If you are located in India, your contracting party will be Amazon Internet Services Private Limited (“**AISPL**”), and this Agreement is an agreement between you and AISPL, located at Ground Floor, EROS Plaza, Eros Corporate Centre, Nehru place, New Delhi, India – 110019. If you are located in India, all references to “AWS,” “we,” or “us” in this Agreement shall be deemed as referring to AISPL. Additionally, if you are located in India, this Agreement shall be deemed to differ from the above provisions as follows:

- (a) The Amazon.com Privacy Notice defined in Section 4.1 shall be deemed to refer to the Amazon.in Privacy Notice located at <http://www.amazon.in/gp/help/customer/display.html/?nodeId=200534380>; and
- (b) Under Section 9.5, any notice by you to AISPL under this Agreement must be made by registered or certified mail to Amazon Internet Services Private Limited, Ground Floor, Eros Corporate Towers, Nehru Place, New Delhi - 110 019, India (not to Amazon Web Services, Inc.).

***You must scroll through the entire Terms and Conditions before accepting or declining.***

I Agree



I Decline



SUBMIT



# Salas de Aula no Programa AWS Educate – E-mail de Verificação

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**AWS Educate Support** <support@awseducate.com>

para eu ▾

16:04 (há 6 minutos)



inglês ▾



português ▾

[Traduzir mensagem](#)

[Desativar para: inglês](#) ✕

Hello Aluno Teste,

Thank you for submitting your AWS Educate application!

In order for your AWS Educate application to be processed, we need to verify your email address. Please use the verification URL below to confirm your email address and complete the application process.

<https://www.awseducate.com/ConfirmEmail?ref=884ebc283a3f9820883924cafc8fd552>

Thank you,

The AWS Educate Team

**Clique no *link*, que sua inscrição será analisada. Esse processo pode levar horas ou dias.**

# Salas de Aula no Programa AWS Educate – E-mail de Aprovação

**AWS Educate Support** <support@awseducate.com>

para eu ▾

16:15 (há 2 horas)



🌐 inglês ▾ > português ▾ [Traduzir mensagem](#)

[Desativar para: inglês](#) ✕

Dear Aluno Teste,

Congratulations!

Your AWS Educate application has been approved. As a member of the AWS Educate program, you will gain access to the benefits listed below:

## **AWS Educate Student Portal**

The AWS Educate Student Portal is the hub for AWS Educate students around the world to find AWS content to help with classwork, connect to self-paced labs and training resources.

**[Click here](#) to set your password and log in to the AWS Educate Student Portal. After logging in, click AWS Account at the top of the page to choose how you would like to access AWS services.**

Bookmark the AWS Educate Student Portal for easy access, or [click here](#) to sign in directly.

You can access a video walk-through of the AWS Educate Student portal [here](#).

## **Free AWS Essentials Training**

To access our foundational AWS Cloud Practitioner Essentials online learning class for free and find other self-paced labs, you must have either an AWS account or an Amazon ID.

- If you have an AWS account, sign in and [click here](#) to receive these benefits.
- If you do not have an AWS account, [click here](#) and follow the instructions to create an Amazon ID to access these benefits.

Once you access the Training and Certification portal, click "Learning Library" and search for "AWS Cloud Practitioner Essentials" to easily locate and enroll in AWS Cloud Practitioner Essentials on-line training. You can access AWS training any time after setting up your account by clicking [here](#).

Thank you again for participating in AWS Educate and we hope you enjoy the program!

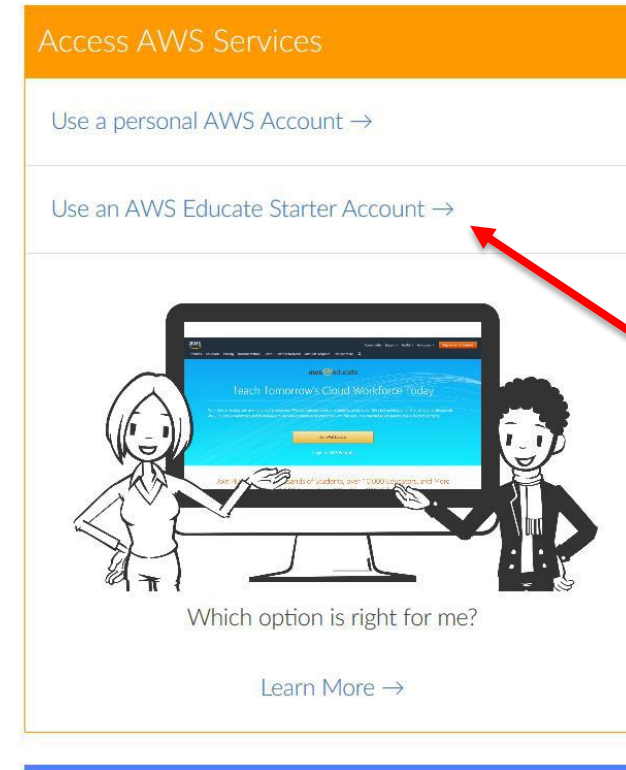
Good luck with your continued studies,

The AWS Educate Team

Vamos criar a senha.

# Salas de Aula no Programa AWS Educate – Criando a Conta

ing over 18 million  
Analytics). AWS  
oud-enabled careers  
ays, each with content  
ctivities and labs,  
adges and Certificates  
s Educate Job Board.  
r through online  
he pathway to your



Vamos criar uma  
conta *Starter*



# Salas de Aula no Programa AWS Educate – Criando a Conta



## I'd like to use an AWS Educate Starter Account

Choose an AWS Educate Starter Account to receive access to an AWS account with a preset limit on your spend on AWS services. An AWS Educate Starter Account is run and managed by a third party (Vocareum, Inc.) and the Starter Account runs in the Vocareum's environment on AWS. Starter Accounts are subject to a separate agreement between you and Vocareum under separate terms and conditions.

The AWS Educate Starter Account provides access to most but not all AWS services. Students at AWS Educate member institution will receive up to \$75 (US) of AWS credit per year in their AWS Educate Starter Account, and students at non-member institution will receive up to \$30 (US) of AWS credit per year.

You don't need a credit card to use a Starter Account because AWS promotional credits are already available in the account. When your usage of AWS services exceed the balance on the account, the account is closed and any running services or other resources on the account are lost.

Create Starter Account

[or choose another option](#)



## AWS Educate Starter Account

Your cloud journey has only just begun. Use your AWS Educate Starter Account to access the AWS Console and resources, and start building in the cloud!

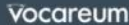
AWS Educate Starter Account

Your account has an estimated **75** credits remaining and access will end on **Aug 31, 2020**.

Note: Clicking this button will take you to a third party site managed by Vocareum, Inc. ("Third Party Servicer"). In addition to the AWS Educate terms of service, your use of the AWS Educate Starter Account is governed by the Third Party Servicer's terms, including its Privacy Policy. AWS assumes no responsibility or liability and makes no representations or warranties regarding services provided by a Third Party Servicer.

Isso vai nos levar ao site da Vocareum

# Salas de Aula no Programa AWS Educate – Criando a Conta

My ClassesHelpalunoufc@quixada.u...

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](http://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

#### 16. General Terms

These Terms constitute the entire and exclusive understanding and agreement between Vocareum and you regarding the Services and Content, and these Terms supersede and replace any and all prior oral or written understandings or agreements between Vocareum and you regarding the Services and Content. If any provision of these Terms is held invalid or unenforceable (either by an arbitrator appointed pursuant to the terms of 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.

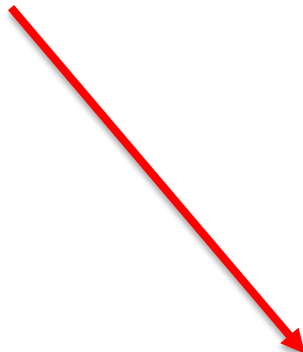
Vocareum's failure to enforce any right or provision of these Terms will not be considered a waiver of such right or provision. The waiver of any such right or provision will be effective only if in writing and signed by a duly authorized representative of Vocareum. Except as expressly set forth in these 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](mailto:info@vocareum.com)

I Agree





Aceite os termos.



# Salas de Aula no Programa AWS Educate – Acessando a Conta

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## Your Starter Account Status

	<b>Active</b> full access ()
	<b>\$75</b> credits (estimated)
	<b>364d 23:54:59</b> remaining term
	<b>2:60</b> session time

[Account Details](#) [AWS Console](#)

← Acesso a nuvem

Pronto!!! Agora temos acesso por um ano, com alguns dólares para gastar, sem informar cartão de crédito!

# Salas de Aula no Programa AWS Educate – Retornando à Conta

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1. <https://www.awseducate.com/signin/SiteLogin>
2. Forneça e-mail e senha
3. Escolha *AWS Account* no menu superior
4. Clique em *AWS Educate Starter Account*
5. Novamente, vá em *AWS Console*

# Criação de Conta - Concluindo

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- É mais trabalho usar a nuvem através da opção Sala de Aula
- Se você realmente quer aprender, e tiver um cartão de crédito, crie a conta no nível gratuito e recupere os créditos da AWS Educate
- Desde 2015 sou usuário e até agora não tive uma única cobrança no cartão de crédito
- É fácil verificar o custo, pois o mesmo é calculado por hora

# Conclusão

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- Meus agradecimento ao Prof. João Marcelo por disponibilizar os slides.