

MBA EM **ENGENHARIA DE SOFTWARE**

**Cloud Computing II (IaaS,
PaaS, SaaS)**

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Provedores de Nuvem

Portais dos Provedores de Nuvem

The image displays three side-by-side screenshots of cloud provider websites:

- AWS (Amazon Web Services):** The top navigation bar includes links for "Entre em contato conosco", "Suporte", "Português", "Minha conta", "Fazer login", "Crie uma conta da AWS", "re:Invent", "Produtos", "Soluções", "Definição de preço", "Documentação", "Aprenda", "Rede de parceiros", "AWS Ma", and a search icon.
- Azure (Microsoft Azure):** The top navigation bar includes links for "Explore", "Products", "Solutions", "Pricing", "Partners", "Resources", "Sign in", and a search icon. The main headline reads "AZURE. LIMITLESS INNOVATION." followed by "Adapt and thrive". Below it, text encourages unifying systems and trying Azure free for up to 30 days. Buttons for "Get started" and "Try Azure for free" are present.
- Google Cloud:** The top navigation bar includes links for "Visão Geral", "Soluções", "Portuguê...", "Console", and a search icon. A banner at the bottom encourages registration for "Google Cloud Next '24". The main headline reads "Construa o futuro. Softwares avançados. E mais rápidos." with a sub-point "✓ Use a infraestrutura, a análise de dados e o machine learning".

Portais de aprendizado

The screenshot shows the Microsoft Learn interface for AWS training. At the top, there's a navigation bar with 'Learn' (highlighted), 'Descobrir', 'Documentação do produto', 'Linguagens de desenvolvimento', 'Tópicos', a search icon, and a user profile icon ('ML'). Below this is another navigation bar for 'Treinamento' with links like 'Produtos', 'Planos de carreira', 'Procurar em todo o treinamento', 'Educator Center', 'Hub de Alunos', and 'Mais'. A large banner says 'Bem-vindo(a) de volta, Marcelo Leite'. It features the AWS logo and links to 'Entre em contato conosco', 'Suporte', 'Português', 'Minha conta', 'Fazer login', and 'Crie uma conta da AWS'. Below the banner, it says 'Domine os conceitos principais de acordo com seu ritmo. Em média, é possível aprender um conceito novo em uma hora, é possível desenvolver habilidades e se registrar para aprender com um instrutor'. A button 'Procurar por roteiros de aprendizagem' is visible. The main content area has a dark background with white text. It says 'Centro de recursos de conceitos básicos', 'Comece a usar', 'Aprendizado', 'Conecte-se', 'Ferramentas do desenvolvedor', 'Mais recursos', 'Explorar por perfil', 'Conceitos básicos da AWS', 'Aprenda os fundamentos básicos e comece a desenvolver na Amazon Web Services', and 'Próximo módulo: Explorar os conceitos básicos: análise em larga escala'. A progress bar shows '42%' completed. On the right side, there's a sidebar with 'CERTIFICAÇÃO' and 'Microsoft Certified: Azure Data Fundamentals'. Below the sidebar, there's a section titled 'Comece sua jornada com a AWS' with a description of AWS as a cloud provider and a link 'Explore todos os tutoriais práticos'. A small orange speech bubble icon with a '1' is also present.

- Os provedores contam com portais de aprendizado, que podem ajudá-lo a conhecer as tecnologias específicas de cada provedor
- Guias de aprendizado para certificações podem ser encontrados
- Referência de arquiteturas e soluções para negócios

[O que é AWS? Como funciona Amazon Web Services](#)

[Training | Microsoft Learn](#)

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Logar na Console

Console de navegação e controle de custos

The screenshot shows the Microsoft Azure Cost Management: Pay-As-You-Go Cost analysis interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and various icons. The left sidebar has a tree view with sections like Home, Cost Management + Billing, Cost Management, Billing, Products + services, and others. The main content area displays a summary of costs: Total (BRL) R\$7.12, Average R\$0.00/day, and a budget of None. It shows 2 resource groups: rgaulausp (R\$7.09) and cloud-shell-storage-westus (R\$0.04). A message encourages checking for cost anomaly insights. At the bottom, there are navigation links for Previous, Page 1 of 1, and Next.

- Configurações de língua e país
- Serviços de busca de serviços
- Notificações e suporte
- Marketplace de soluções
- Azure Cost Management para controle de orçamento e monitoramento de custos

Armazenamento em Nuvem

- Object Stores estão contidas dentro do serviço “Storage Accounts” no Azure
- Existem vários tipos de armazenamento dentro deste serviço
- Hot, Cold e Archive são tipos comuns entre os provedores de nuvem

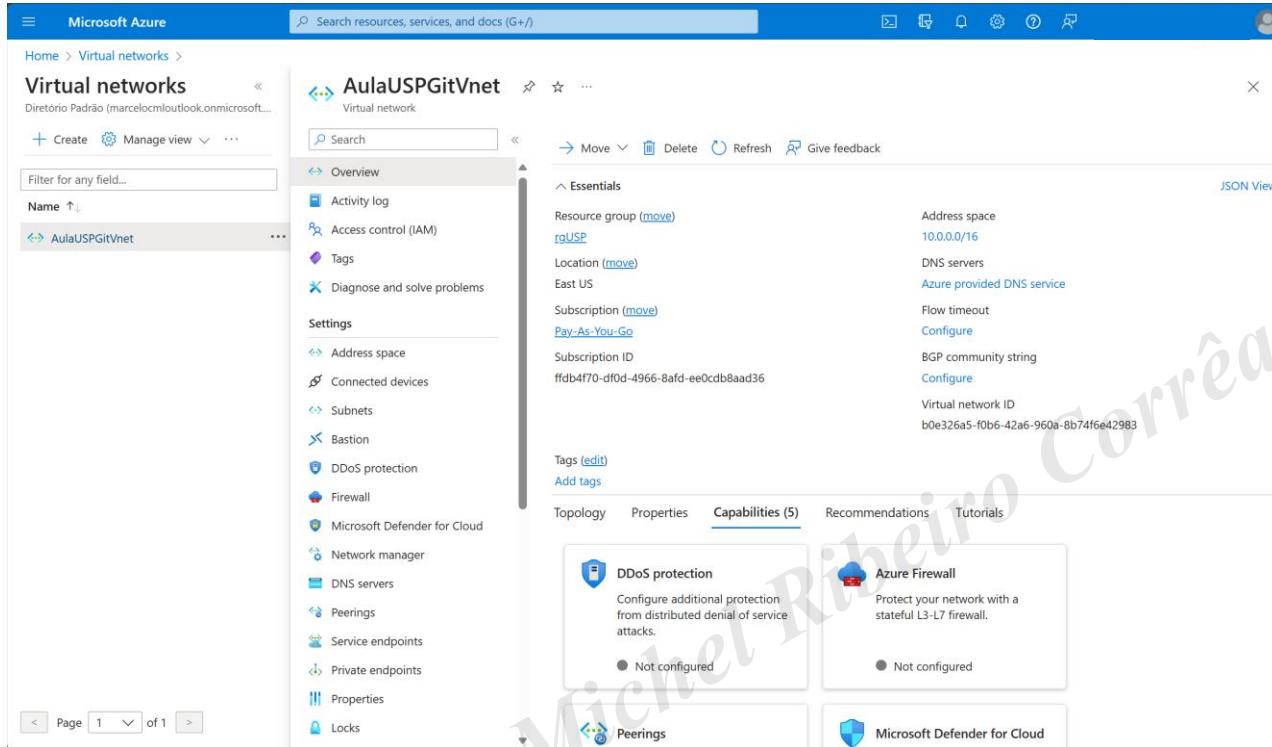
The screenshot shows the Microsoft Azure Storage Accounts overview page for a storage account named 'storageusp'. The page includes a left sidebar with navigation links like Overview, Activity log, Tags, and Blob service. The main content area displays various account details such as Resource group, Location, Subscription, Disk state, and Tags. It also features sections for Blob service (Hierarchical namespace, Default access tier, Blob anonymous access, Blob soft delete, Container soft delete, Versioning, Change feed, NFS v3, Allow cross-tenant replication, Storage tasks assignments) and Security (Require secure transfer for REST API operations, Storage account key access, Minimum TLS version, Infrastructure encryption). The Networking section shows settings for Allow access from (All networks), Number of private endpoint connections (0), Network routing (Microsoft network routing), Access for trusted Microsoft services (Yes), and Endpoint type (Standard).

Resource group (move)	: AulaUSPPizza_group	Performance	: Standard
Location	: eastus	Replication	: Read-access geo-redundant storage (RA-GRS)
Primary/Secondary Location	: Primary: East US, Secondary: West US	Account kind	: StorageV2 (general purpose v2)
Subscription (move)	: Pay-As-You-Go	Provisioning state	: Succeeded
Subscription ID	: ffdb4f70-df0d-4966-8afd-ee0cdb8aad36	Created	: 3/4/2024, 9:14:02 PM
Disk state	: Primary: Available, Secondary: Available		

Tags (edit)	: Add tags
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Properties		Monitoring	Capabilities (7)	Recommendations (0)	Tutorials	Tools + SDKs
Blob service						
Hierarchical namespace	Disabled					
Default access tier	Hot					
Blob anonymous access	Disabled					
Blob soft delete	Enabled (7 days)					
Container soft delete	Enabled (7 days)					
Versioning	Disabled					
Change feed	Disabled					
NFS v3	Disabled					
Allow cross-tenant replication	Disabled					
Storage tasks assignments	None					
Security						
Require secure transfer for REST API operations	Enabled					
Storage account key access	Enabled					
Minimum TLS version	Version 1.2					
Infrastructure encryption	Disabled					
Networking						
Allow access from	All networks					
Number of private endpoint connections	0					
Network routing	Microsoft network routing					
Access for trusted Microsoft services	Yes					
Endpoint type	Standard					

Redes em Nuvem



- vNets e Subnets completas com diversas possibilidades de configurações e topologias
- vNet peering para conexões entre ambientes
- Serviços de segurança opcionais
- Public and Private IPs

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Primeira aplicação na Nuvem!

Hello World Application – Pré requisitos

Conta do Azure.com

Conta do GitHub.com

The image shows two side-by-side screenshots of developer platforms. On the left is the Azure.com homepage, featuring a large banner with the text 'Crie na nuvem com uma conta gratuita do Azure' (Create in the cloud with a free Azure account) and two buttons: 'Experimente gratuitamente' (Try for free) and 'Pagamento conforme o uso' (Pay as you go). Below this, there are three boxes: 'Os serviços populares são gratuitos por 12 meses' (Popular services are free for 12 months), 'Mais de 55 outros serviços permanentes gratuitos' (More than 55 other permanent services are free), and 'Comece com USD\$200 de crédito Azure' (Start with USD\$200 of Azure credit). On the right is the GitHub.com homepage, with a prominent banner reading 'Let's build from here' and 'The world's leading AI-powered developer platform'. It includes fields for 'Email address', 'Sign up for GitHub', and 'Start a free enterprise trial'. Below the banner, it says 'Trusted by the world's leading organizations' and lists logos for 3M, KPMG, Mercedes-Benz, SAP, P&G, and TELUS.

Hello World Application

1) Faça o Fork da solução

<https://github.com/marcelocml/vanilla-basic>

2) Crie um “Static Web App” na console do Azure:

The screenshot shows the 'Create Static Web App' wizard in the Microsoft Azure portal. The current step is 'Basics'. The page title is 'Create Static Web App ...'. The 'Project Details' section includes fields for 'Subscription' (set to 'Pay-As-You-Go') and 'Resource Group' (set to '(New) AulaUSP_group'). The 'Static Web App details' section has a 'Name' field set to 'AulaUSP'. The 'Hosting plan' section shows 'Plan type' with 'Free: For hobby or personal projects' selected. The 'Azure Functions and staging details' section has a 'Region' dropdown set to 'Central US'. At the bottom, there are navigation buttons: 'Review + create', '< Previous', and 'Next : Tags >'.

Hello World Application

- 1) Conecte na sua conta GitHub
- 2) Autorize o acesso aos seus repositórios
- 3) Selecione a “Organization”, “Repository” e “Branch” para conexão com a solução que foi copiada do repositório GitHub
- 4) Clique em “Review + create”

The screenshot shows the "Create Static Web App" wizard on GitHub. It's step 3 of 4, titled "Authorize Azure Static Web Apps".
The left panel displays the GitHub OAuth consent screen for "Azure Static Web Apps by Azure App Service Static Web Apps". It asks for access to repositories and workflow files. The "Authorize Azure-App-Service-Static-Web-Apps" button is highlighted.
The right panel shows the configuration details:

- Deployment details:** GitHub (selected), Azure DevOps, Other.
- GitHub account:** marcelocml (selected).
- Organization:** marcelocml (selected).
- Repository:** static-website-example (selected).
- Branch:** master (selected).
- Build Details:** A placeholder for GitHub Actions workflow configuration.
- Workflow configuration:** A placeholder for GitHub Actions workflow configuration.

At the bottom, there are "Review + create", "Previous", and "Next : Tags >" buttons.

Hello World Application

- 1) Clique na URL do seu site para abri-lo
- 2) Revise as configurações de IAM
- 3) Revise as opções na aba “Settings”

The screenshot shows the Microsoft Azure portal interface for a Static Web App named "SiteUSP". The left sidebar lists various settings options: Overview, Access control (IAM), Tags, Diagnose and solve problems, Configuration, Environment variables, Application Insights, Custom domains, APIs, Database connection (preview), Environments, Role management, Identity, Enterprise-grade edge, Hosting Plan, Private endpoints, Locks, Automation, and CLI / PS. The main content area displays the "Essentials" section with details like Resource group (rgUSP), Subscription (Pay-As-You-Go), Subscription ID, Location (Global), Sku (Free), and Tags. It also shows the URL (<https://yellow-grass-0aed13310.4.azurestaticapps.net>), Source (master (GitHub)), Deployment history (GitHub Action runs), and Edit workflow (azure-static-web-apps-yellow-grass-0aed13310.yml). Below this, there's a "View your application" section with a status of "Ready", environment "Production", domain "<https://yellow-grass-0aed13310.4.azurestaticapps.net>", and a "Visit your site" button. At the bottom, there are two cards: "Add a custom domain" (Not completed) and "Upgrade your hosting plan" (Not completed).

Obrigado(a)!

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