



Personal Ideas

AWS Advanced Architecting

Francisco Moreno

December/2025

Agenda

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Value of being certified

AWS Certifications & Training
Top and resources to help reach your Cloud Career

Top 10 Benefits of AWS Certification

5 Ways Professional Certifications Add Value

CERTIPORT

THE VALUE OF CERTIFICATION

It's a world where competition for jobs, pay increases, and academic courses continues to increase, certifications offer hope because they are a credible, third-party assessment of one's skill and knowledge for a given subject.

Options

AWS Cloud Institute

AWS Educate

AWS Academy

Join the Get AWS Certified: Foundational and Associate Challenge

Paradigms to be on cloud

THE NEW STACK

Introduction to AWS Economics
Reducing Costs and Complexity

'Merchants of Complexity': Why 37Signals Abandoned the Cloud

Leaving the Cloud: Cloud Computing Isn't For Everyone
We've run extensively in both Amazon's cloud and Google's cloud, but the savings never materialized. So we left.

Cloud Economics Center
Understand and optimize the value of AWS

Don't follow normal structures

68-year-old has spent 50 years at the same company as an engineer, even without a college degree—this is his one regret

Experiment: IT companies eager to hire self-taught pros

Estudiar informática ha dejado de ser el camino hacia la tierra prometida del dinero y la seguridad laboral

Think by yourself

EducationWorld

'I Literally Cried': Teachers Describe Their Transition to Science-Based Reading Instruction

Cognitive Bias

THE ART OF THINKING CLEARLY
The Secrets of Perfect Decision-Making
BOLFE DOBELL

Paradigms of using microservices

Scaling up the Prime Video audio/video monitoring service and reducing costs by 90%

Best of 2023: Don't Build Microservices, Parsec Loose Coupling

Rebuilding Netflix Video Processing Pipeline with Microservices

Paradigms of using in the normal way

OpenTF Joins The Linux Foundation as OpenTofu!

One staging for each engineer: introducing Layerform

START

FINISH



Don't follow normal structures

CLOSING THE GAP

29-year-old makes \$125K working in tech without a bachelor's degree—here's how

POP CULTURE AND MEDIA

Oscars 2024: Greta Gerwig was rejected by every grad school she applied to

WORK

Want a job or promotion? Here's how to brag, WI

WORK

68-year-old has spent 50 years at the same company as an engineer, even without a college degree—this is his one regret

Published Sun, Oct 1 2023•9:30 AM EDT



Jennifer Liu
@IN/JLJENNIFERLIU
@JLJENNIFERLIU

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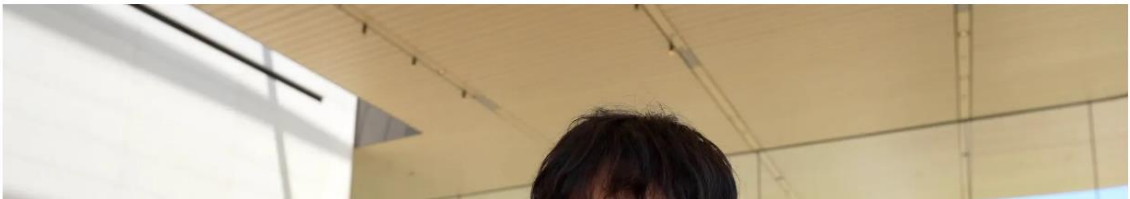
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Estudiar informática ha dejado de ser el camino hacia la tierra prometida del dinero y la seguridad laboral

Kwan Wei Kevin Tan, Business Insider 23 nov. 2023 23:30h.



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Experiment: IT companies eager to hire self-taught pros

Updated on: November 15, 2023 12:53 PM 1



Ernestas Naprys, Senior Journalist





AWS Certification & Training

Tips and resources to fast-track your Cloud Career

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5 Ways Professional Certifications Add Value



By MBO Partners | April 1, 2022

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THE VALUE OF CERTIFICATION

SKILLS HAVE BECOME THE GLOBAL CURRENCY OF 21ST CENTURY ECONOMIES!

In a world where competition for jobs, pay increases, and academic success continues to increase, certifications offer hope because they are a credible, third-party assessment of one's skill and knowledge for a given subject.





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AWS Cloud Institute

The virtual cloud-skills training program that will get you up to speed in one year - regardless of your technical background

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certification

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AWS Academy

empowering higher education institutions to prepare students for communications and careers in the cloud

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THE NEW STACK

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CLOUD NATIVE ECOSYSTEM / CLOUD SERVICES / FINOPS / HARDWARE / OPERATIONS

'Merchants of Complexity': Why 37Signals Abandoned the Cloud

Provisioning a fleet of servers in 30 minutes is magic, but it is not a requirement that comes up that often for most businesses, David Heinemeier Hansson argues.

Dec 26th, 2023 8:15am by [Joab Jackson](#)



★★★★★ "GETS BETTER AND BETTER"

Leaving the Cloud: Cloud Computing Isn't For Everyone

We've run extensively in both Amazon's cloud and Google's cloud, but the savings never materialized. So we've left.

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GLG Brightpaper - The business value of Amazon W

Cloud Economics Center

Understand and optimize the value of AWS

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Introduction to AWS Economics

Reducing Costs and Complexity

May 2015



Paradigms of using microservices

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prime video | TECH

Homepage

Our Innovation ▾

Our People

Video Streaming

Scaling up the Prime Video audio/video monitoring service and reducing costs by 90%

The move from a distributed microservices architecture to a monolith application helped achieve higher scale, resilience, and reduce costs.



Architecture Style : Modulith (vs Microservices)



Pier-Jean Malandrino · Follow

Published in Level Up Coding · 4 min read · Jan 28, 2024

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• Time to Extend DevOps Visibility to the Network Ed

Best of 2023: Don't Build Microservices, Pursue Loose Coupling

Best of 2023: Don't Build Microservices, Pursue Loose Coupling



BY: CHRIS BERTINATO ON DECEMBER 26, 2023

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Rebuilding Netflix Video Processing Pipeline with Microservices

Top highlight



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Published in Netflix TechBlog · 9 min read · Jan 10, 2024



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OpenTF Joins The Linux Foundation as OpenTofu!



Omry Hay

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Lucas F. da Costa

Posted on 29 Aug 2023



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One staging for each engineer: introducing Layerform

#devops #infrastructureascode #terraform



READING & LITERACY

‘I Literally Cried’: Teachers Describe Their Transition to Science-Based Reading Instruction



By [Elizabeth Heubeck](#) — September 15, 2023 ⌚ 6 min read

Cognitive Bias:

Outcome Bias (Historian Error): Once you look back, every decision looks like it makes sense. But when you are in the moment, it is not that clear. The 2008 bank crisis seems very easy to understand, but back in time, even the smartest Wall

#6 Reciprocity

Reciprocity is the central core of cooperation among people that sustains economy growth and social development. The act of reciprocity are employed by Non-Governmental Organizations (NGOs) and philanthropic

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THE ART OF THINKING CLEARLY

The Secrets of Perfect Decision-Making

ROLF DOBELLI



- **Comms Engineer**, M.Sc., University of York, UK. **Electronic Engineer**, U Javeriana.
- {Enterprise, Solutions, Software} **Architect**, **DevOps Engineer**, Low-Level **Developer**.
- 16 years of working experience on massive transport, financial companies (Banks and **Transactional Platforms**) and software companies (Current).
- 20+ Cloud Certifications

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- **Schedule** your appointments: 5 sessions.
- Arrive early to check your connection. Bring your own questions from concepts or from labs.
- **No recording** is allowed, except extraordinary cases.
- **Raise your hand** or interrupt the class **if you have to**: I plan to ask every 2/3 slides.

Features

A course that "Identify (..) services, compare features, and explore best practices to architect resilient, secure, and highly available IT solutions on AWS."

- It is a course refined by thousands of students and hundreds of instructors over the years, focusing on the most widely used methods and services in the industry.
- A course does not guarantee that all the requested topics will be covered as there are many services for each exam – 6 pages for SAA, 5 for DAV and 7 for SAP.
- It is expected that there will be independent work on the part of the student to read the Whitepapers, documentation and FAQs.
- Labs contains required information to work as independent tasks, are not taught in class, and are handled by the AWS Platform. **HOWEVER**, the student requests to BSG to do it on class (to do at the end of the class)
- AWS recommends course length and cadence.





Classes Management: Automatic generated URL

aws training and certification

My account

My Classes > Architecting on AWS

Architecting on AWS

Location	Start Date	End Date
Virtual Class Link	August 23, 2023 @ 11:00 AM America / Bogota (UTC-05:00)	October 30, 2023 @ 11:59 PM America / Bogota (UTC-05:00)

Labs

Labs will be made available by instructors

Lab Guide [Lab Guide](#) [Student Guide](#)

Lab 1 - Explore and interact with the AWS Management Console and AWS Command Line Interface

2 HOURS

This lab provides you with a basic overview of the AWS Management console and API

[Launch](#)

online.vitalsource.com/reader/books/200-ARCHIT-75-EN-LG-E/pageid/98

Architecting on AWS 7.5.5 (EN): Lab Guide

AWS Training and Certification

Task 2: Creating three Amazon SQS queues

In this task, you create three Amazon SQS queues and subscribe the queues to the previous Amazon SNS topic.

Task 2.1: Creating an Amazon SQS queue

- At the top of the AWS Management Console, click **Services**.
- In the search bar, type **Simple Queue Service**.
- Click **Simple Queue Service**.
- Click **Create queue**.
- On the **Create queue** page, in the **Queue type** section, choose **Standard** (the default).
- In the **Name** field, enter **thumbnail-queue**.
- Click **Create queue**.
- The console sets default values for the queue.
- Choose **Create queue**.
- Amazon SQS creates the queue and displays the **Create queue** page.

Lab Support

Almost all AWS courses have self-directed labs for the students.

online.vitalsource.com/reader/books/200-ARCHIT-75-EN-SG-E/pageid/555

Architecting on AWS 7.5.5 (EN): Student Guide

AWS Training and Certification

Module 12: Edge Services

In this module, you learn about each AWS service involved in this example:

Review the edge services architecture. A user sends a request to an application partly hosted on premises. The user's request interacts with Amazon Route 53, AWS WAF, Amazon CloudFront, and Amazon S3. The AWS services hosted in the cloud are protected with AWS Shield.

In this module, you learn about each of the services labeled in the example.

- First, you learn about Amazon Route 53 and how you can use it to direct traffic to your resources. Route 53 operates at edge locations around the world.
- Next, you learn about the AWS content delivery network known as Amazon CloudFront.

Lab environment

You are tasked with evaluating and improving an event-driven architecture. Currently, Customer Care professionals take snapshots of products and store the images. The development team runs PHP applications that upload a file to the ingest S3 bucket. Uploading a file triggers an event notification to an Amazon SNS topic. Amazon SNS sends a message to separate SQS queues. The initial design was to use a single SQS queue for all messages. After reviewing the initial design with Lambda functions. The Lambda functions process the messages and store the output in a separate S3 bucket.

The following diagram shows the workflow:



Start lab

- To launch the lab, at the top of the page, choose **Start lab**.
- You must wait for the provisioned AWS services to be ready before you can continue.
- To open the lab, choose **Open Console**.

You are automatically signed in to the AWS Management Console in a new web browser tab.

Do not change the Region unless instructed.

Common sign-in errors

Error: You must first sign out

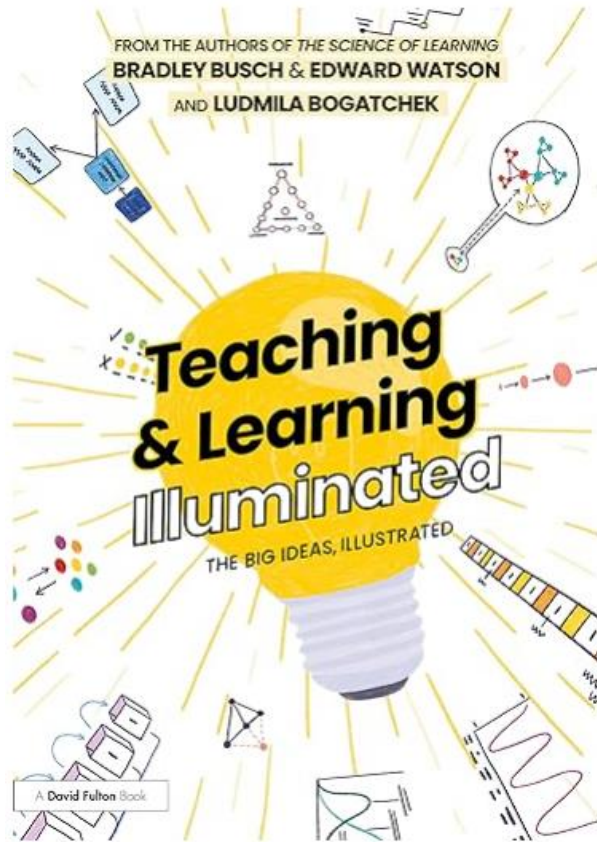
Amazon Web Services Sign In

You must first log out before logging into a different AWS account.

To logout, [click here](#)

If you see the message, **You must first log out before logging into a different AWS account:**

- Choose the [click here](#) link.



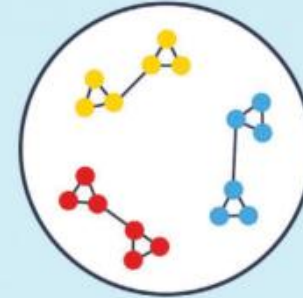
Working memory is very small

This means that we forget new information quickly.



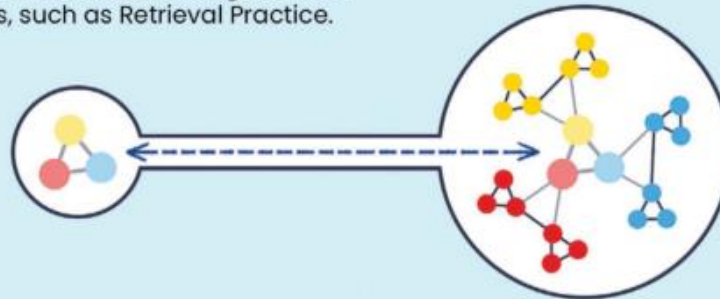
Long-term memory is very large

This means that we can remember things from years and years ago.



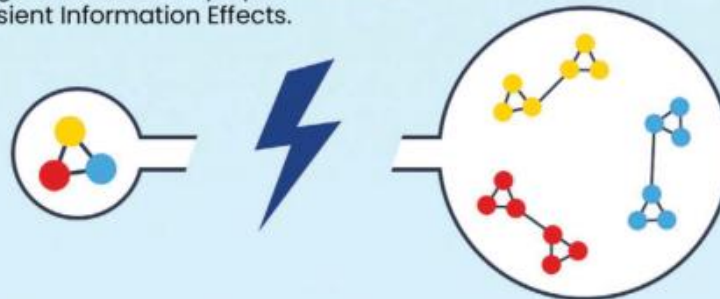
Transfer between working memory & long-term memory is key for learning

This can be facilitated through several strategies, such as Retrieval Practice.



Unfortunately, cognitive overload hinders this transfer

This overload can be reduced through mitigating the Redundancy, Split-Attention and Transient Information Effects.





Choke Points and Pitfalls in Learning

