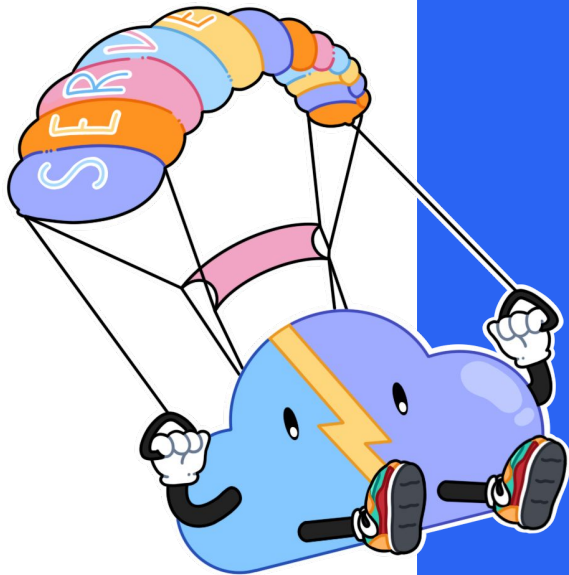


# Spend Less Going Serverless: It's Possible, We Swear!



# Our plans for today

25 minutes

Cost Optimization Strategies

20 minutes

Caching?! 

10 minutes

Breaking Down SwagHunt

Q & A 



World-class AWS experts



# Sam Lock

Sr. Serverless Dev @ Serverless Guru

🥰's Serverless Framework

😞's Working w/ RDS (excluding t





# Our Company

We love to take on challenges, face the unknown, and be on the forefront of serverless innovation.

Helping companies and people realize their full potential gives us energy.

Speak to a Guru today!

# Cost Optimization Strategies



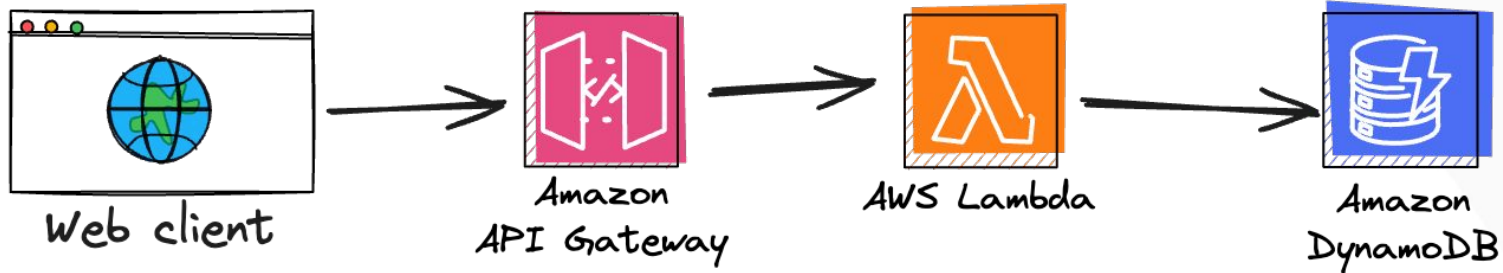
# Total Cost Of Ownership

How much does software engineering “actually” cost?

- Infrastructure costs
- Maintenance costs
- Development costs

# Total Cost Of Ownership

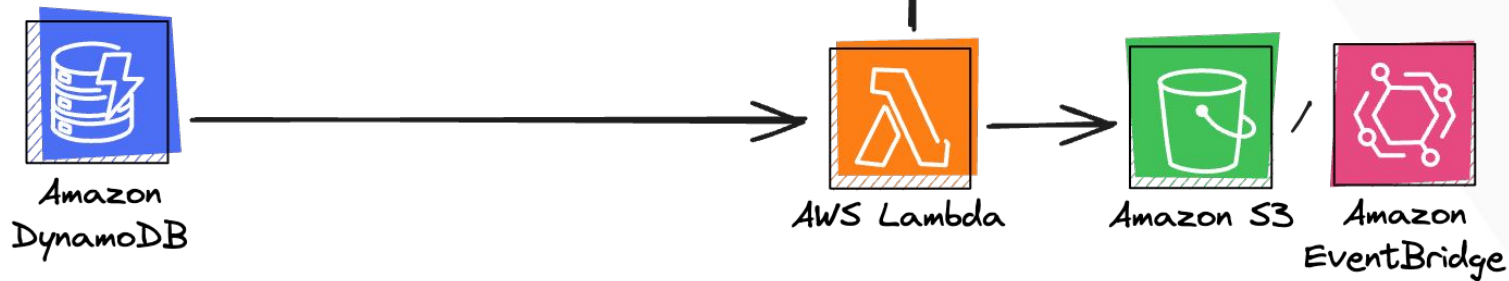
How much does software engineering “actually” cost?





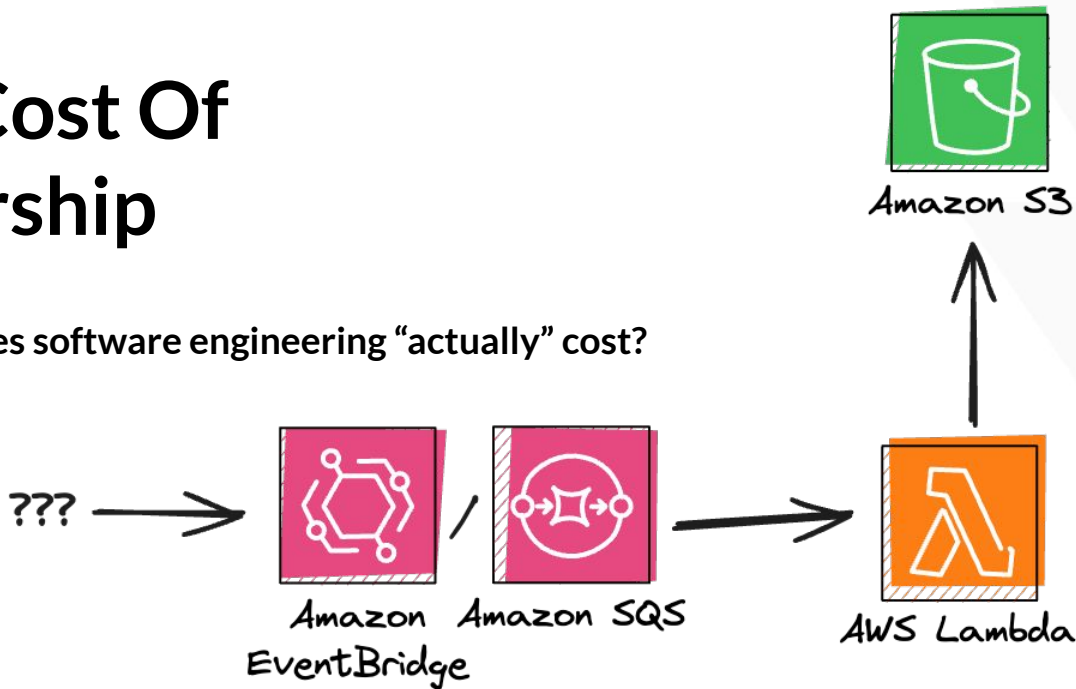
# Total Cost Of Ownership

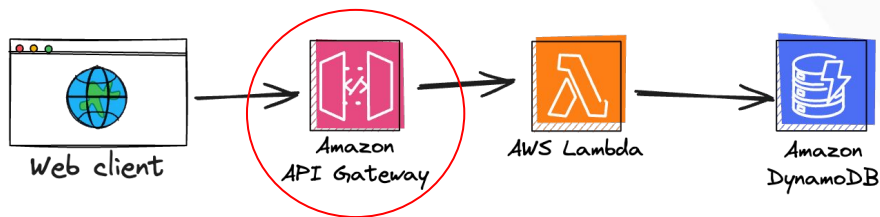
How much does software engineering “actually” cost?



# Total Cost Of Ownership

How much does software engineering “actually” cost?

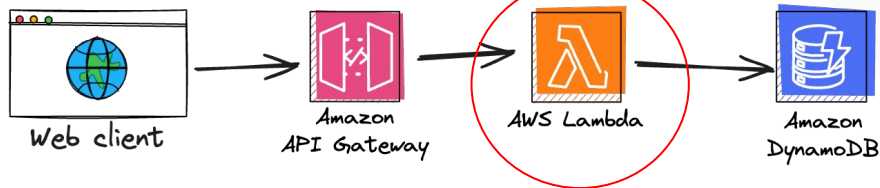




# API Gateway

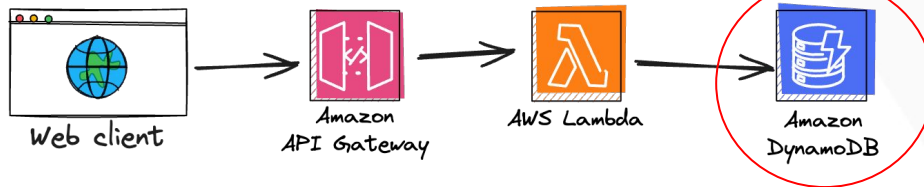
Number of Requests (per month)	Price (per million)
First 333 million	\$3.50
Next 667 million	\$2.80
Next 19 billion	\$2.38
Over 20 billion	\$1.51

Cache Memory Size (GB)	Price per Hour
0.5	\$0.02
1.6	\$0.038
6.1	\$0.20
13.5	\$0.25
28.4	\$0.50
58.2	\$1.00
118.0	\$1.90
237.0	\$3.80



# AWS Lambda

Architecture	Duration	Requests
<b>x86 Price</b>		
First 6 Billion GB-seconds / month	\$0.0000166667 for every GB-second	\$0.20 per 1M requests
Next 9 Billion GB-seconds / month	\$0.000015 for every GB-second	\$0.20 per 1M requests
Over 15 Billion GB-seconds / month	\$0.0000133334 for every GB-second	\$0.20 per 1M requests
<b>Arm Price</b>		
First 7.5 Billion GB-seconds / month	\$0.0000133334 for every GB-second	\$0.20 per 1M requests
Next 11.25 Billion GB-seconds / month	\$0.0000120001 for every GB-second	\$0.20 per 1M requests
Over 18.75 Billion GB-seconds / month	\$0.0000106667 for every GB-second	\$0.20 per 1M requests

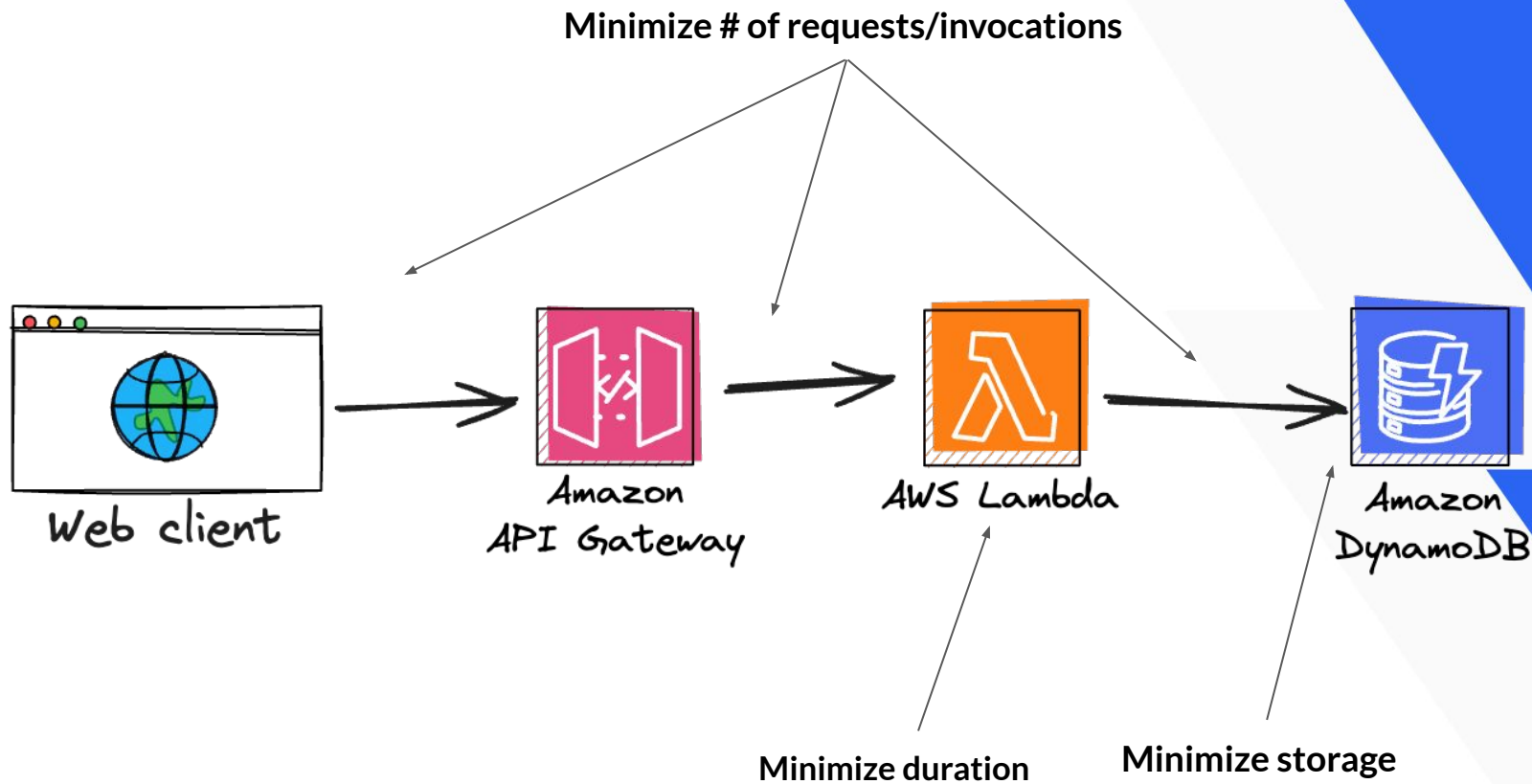


# DynamoDB

## DynamoDB Standard table class

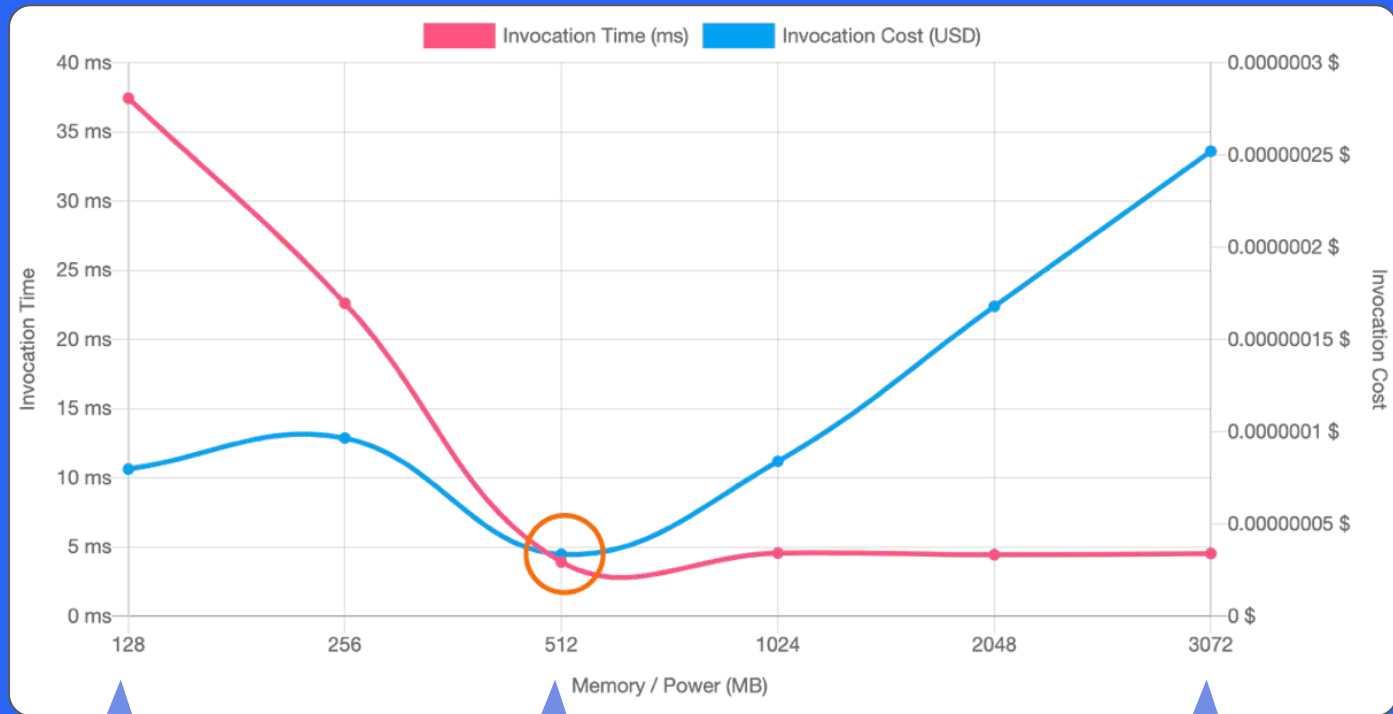
- First 25 GB stored per month is free using the DynamoDB Standard table class
- \$0.25 per GB-month thereafter

On-Demand Throughput Type	Price
Write Request Units (WRU)	\$1.25 per million write request units
Read Request Units (RRU)	\$0.25 per million read request units





# Lambda Power Tuning



### Original

- Memory: 128MB
- Duration: 36ms

### Option A (👍):

- Memory: 512MB
- Duration: 4ms
- Savings: +36%
- Speed: +88%

### Option B (👎):

- Memory: 3072MB
- Duration: 4.5ms
- Savings: -257%
- Speed: +87%

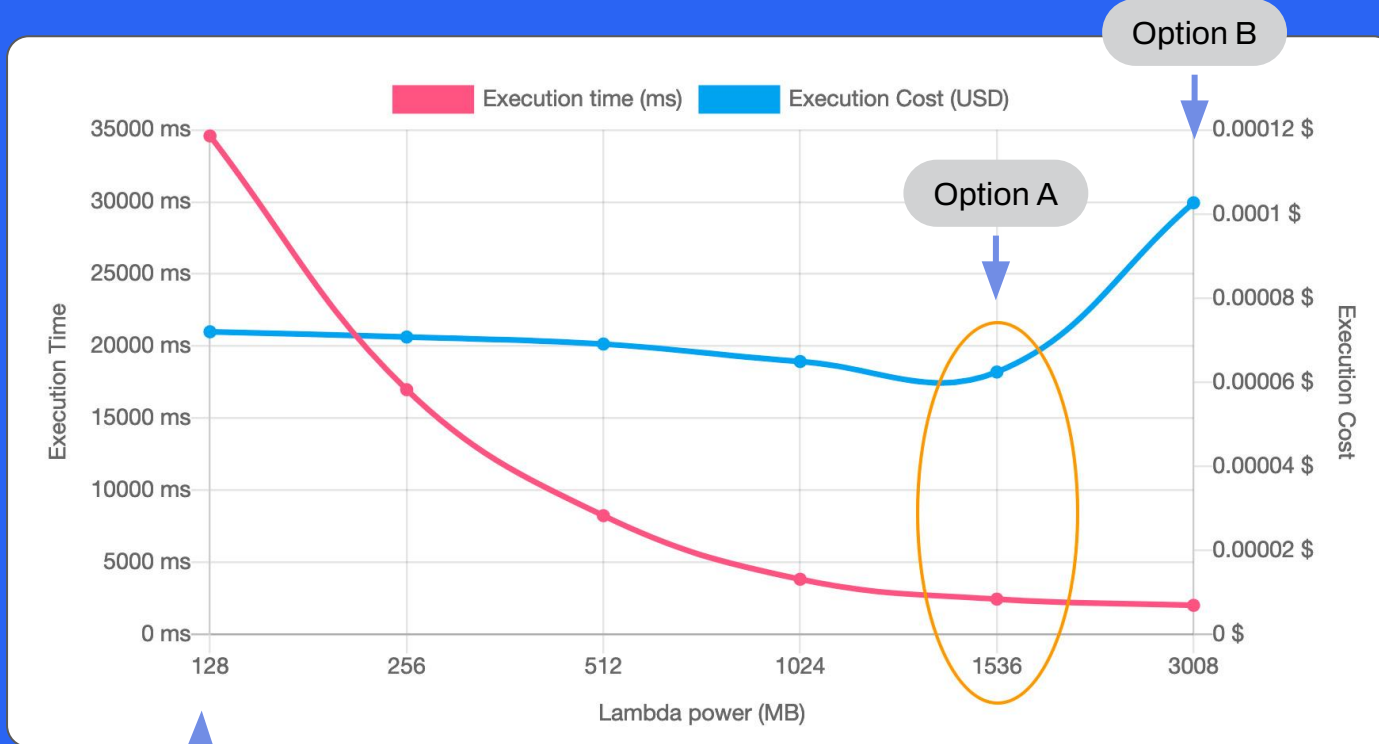
Original

Option A

Option B

World-class AWS experts





### Original

- Memory: 128MB
- Duration: 35secs

### Option A (👍):

- Memory: 1536MB
- Duration: 3ms
- Savings: +14%
- Speed: +91%

### Option B (👩):

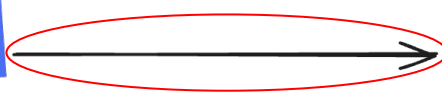
- Memory: 3008MB
- Duration: 2.9ms
- Savings: -66%
- Speed: +92%

# DynamoDB Streams

Architecture	Duration	Requests
<b>x86 Price</b>		
First 6 Billion GB-seconds / month	\$0.0000166667 for every GB-second	\$0.20 per 1M requests
Next 9 Billion GB-seconds / month	\$0.000015 for every GB-second	\$0.20 per 1M requests
Over 15 Billion GB-seconds / month	\$0.0000133334 for every GB-second	\$0.20 per 1M requests
<b>Arm Price</b>		
First 7.5 Billion GB-seconds / month	\$0.0000133334 for every GB-second	\$0.20 per 1M requests
Next 11.25 Billion GB-seconds / month	\$0.0000120001 for every GB-second	\$0.20 per 1M requests
Over 18.75 Billion GB-seconds / month	\$0.0000106667 for every GB-second	\$0.20 per 1M requests



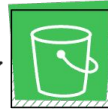
Amazon  
DynamoDB



AWS Lambda



Amazon Bedrock



Amazon S3



Amazon  
EventBridge

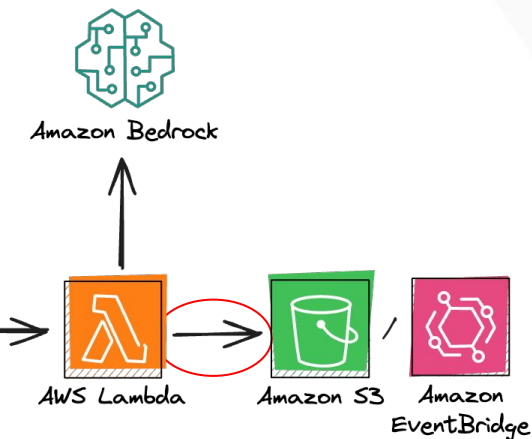


# DynamoDB Streams

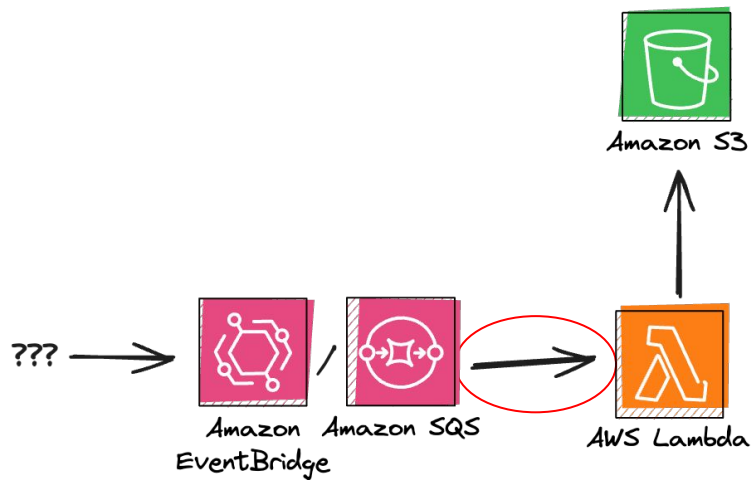
Storage pricing	
<b>S3 Standard</b> - General purpose storage for any type of data, typically used for frequently accessed data	
First 50 TB / Month	\$0.023 per GB
Next 450 TB / Month	\$0.022 per GB
Over 500 TB / Month	\$0.021 per GB
<b>S3 Intelligent - Tiering *</b> - Automatic cost savings for data with unknown or changing access patterns	
Monitoring and Automation, All Storage / Month (Objects > 128 KB)	\$0.0025 per 1,000 objects
Frequent Access Tier, First 50 TB / Month	\$0.023 per GB
Frequent Access Tier, Next 450 TB / Month	\$0.022 per GB
Frequent Access Tier, Over 500 TB / Month	\$0.021 per GB
Infrequent Access Tier, All Storage / Month	\$0.0125 per GB
Archive Instant Access Tier, All Storage / Month	\$0.004 per GB
<b>S3 Intelligent - Tiering *</b> - Optional asynchronous Archive Access tiers	
Archive Access Tier, All Storage / Month	\$0.0036 per GB
Deep Archive Access Tier, All Storage / Month	\$0.00099 per GB
<b>S3 Standard - Infrequent Access **</b> - For long lived but infrequently accessed data that needs millisecond access	
All Storage / Month	\$0.0125 per GB



Amazon  
DynamoDB



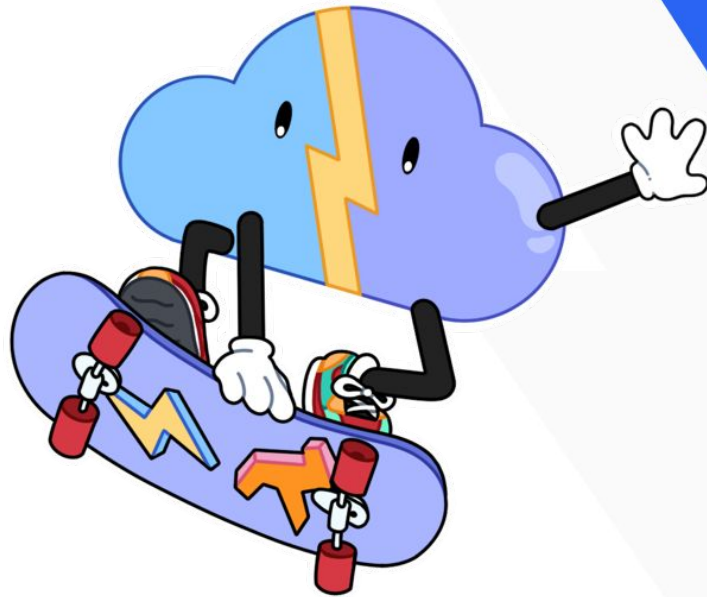
# Event Driven



# Batching Events...

Time for  
a break.  
**FINALLY!**





That's it folks!

# Thank you!