Damien Jones (he/him)

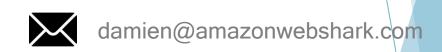
AWS Consultant @ Steamhaus

2024-10-03 AWS Community Day NL













# Agenda

**Problem Definition** 

**Solution Architecture** 

Demos

Summary & Questions



github.com/MrDamienJones /Community-Sessions

#### **Damien Jones**



Consultant @ Steamhaus

Using AWS since 2019

Creator @ amazonwebshark.com

Runner; Keen Gardener; Dog Dad



# The 4 Vs Of Big Data

Characteristics of Big Data...

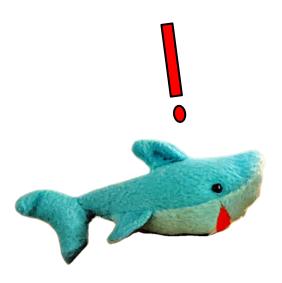
...and events...

...and API requests...

...metrics ...traces ...logs ...

# **Variety**

"The state of being diverse or varied."





# **Variety**

"The state of being diverse or varied."

Structure

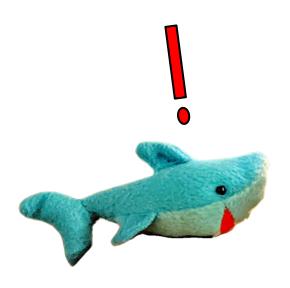
Intent

Sensitivity



# Velocity

"The speed at which something is moving in a given direction."





## Velocity

"The speed at which something is moving in a given direction."

Streaming or Batch

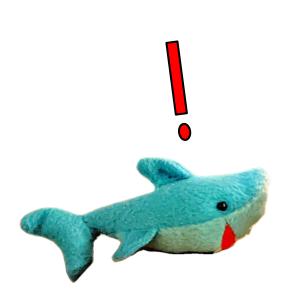
Synchronous or Asynchronous

Scheduling



# Veracity

"The quality of being true or the habit of telling the truth."





# Veracity

"The quality of being true or the habit of telling the truth."

**External Security** 

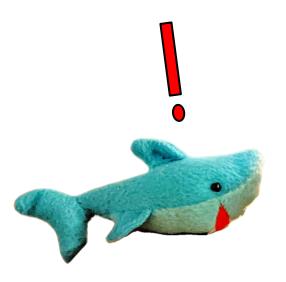
Validation & Health

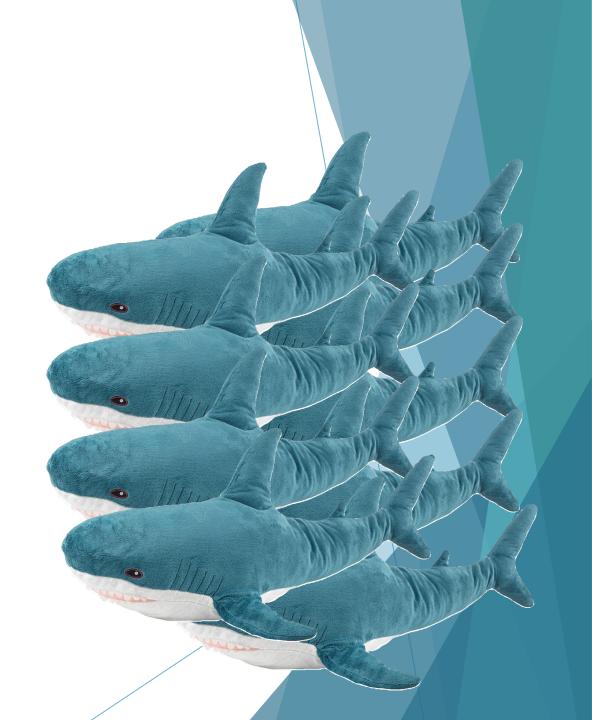
Internal Security



# Volume

"The amount of space occupied."





#### Volume

"The amount of space occupied."

Size or Amount

**Access Patterns** 

Backups







#### **AWS Lambda**



Serverless compute service

Supports multiple languages

Auto-scales on demand

Up to 1000 concurrent executions

#### Amazon S3



Serverless object storage

Store anything for any reason

1000s of requests per second

Object protection & integrity checks





#### **Amazon Athena**



Serverless interactive query service

Query & access controls

Create derived tables

Read-Only & Open Table support

#### **AWS Glue**



Fully managed serverless ETL service

Crawlers discover data automatically

Up to 2000 concurrent ETL job runs

Data Catalog indexes data assets





## **AWS Step Functions**

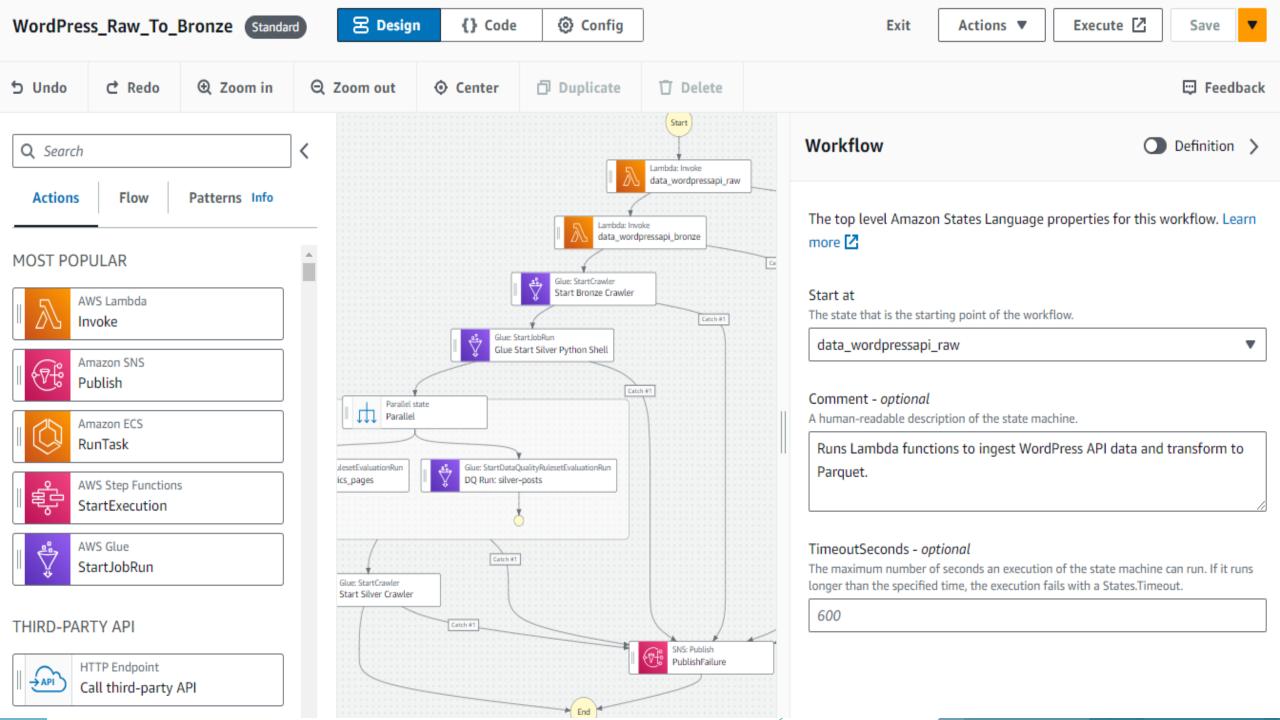


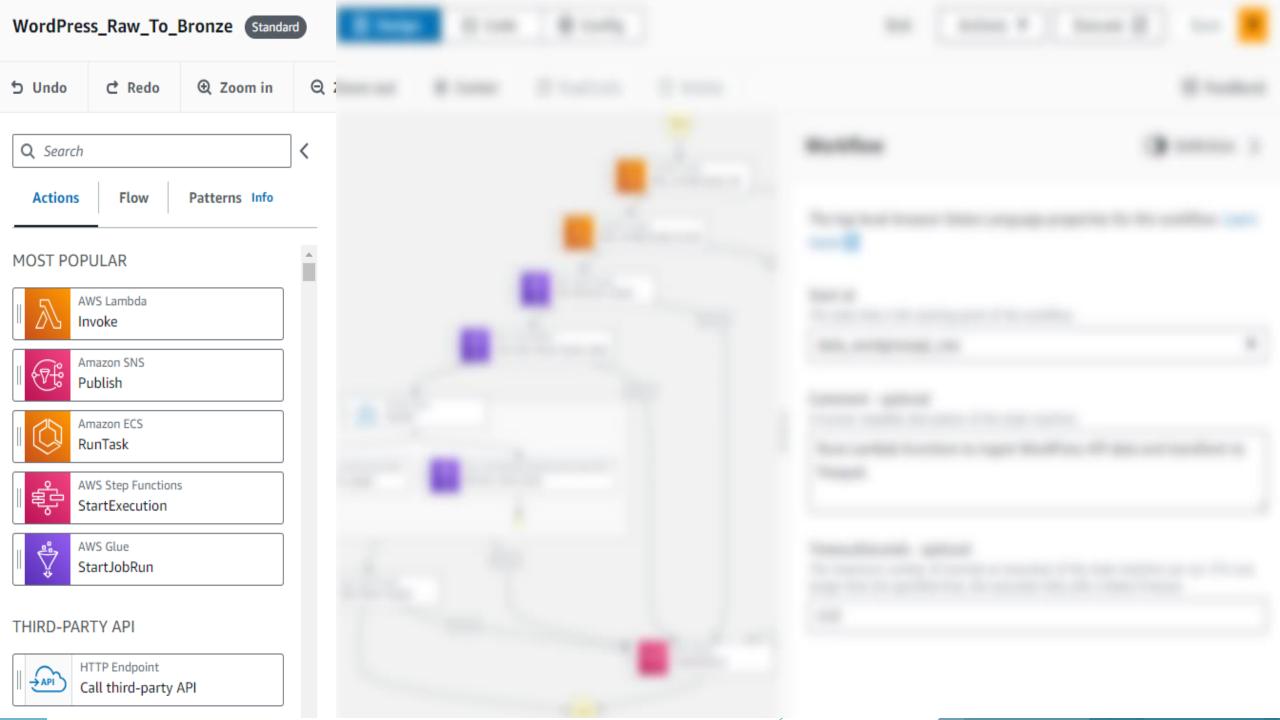
Serverless task orchestration

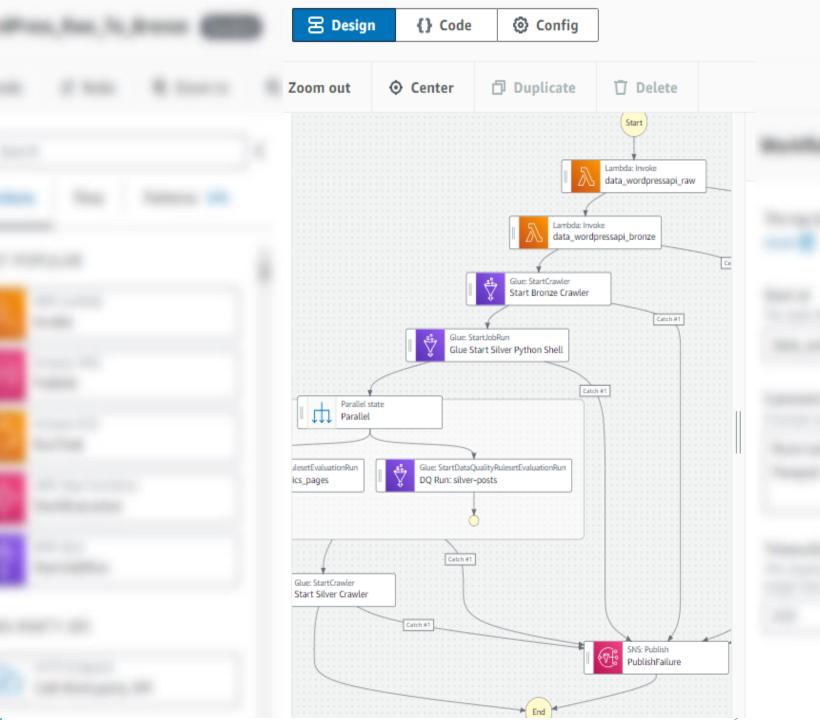
Invoke over 220 AWS services / 10k API calls

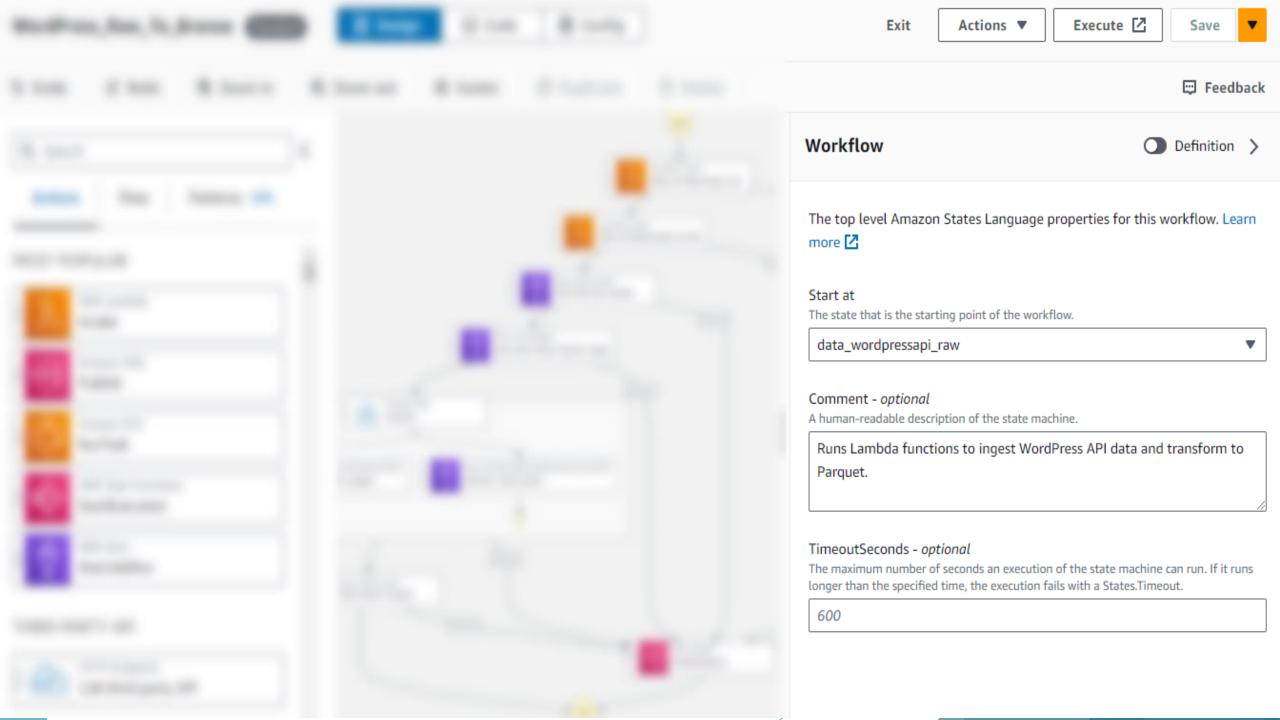
Design workflows visually and as code

Standard & Express workflows









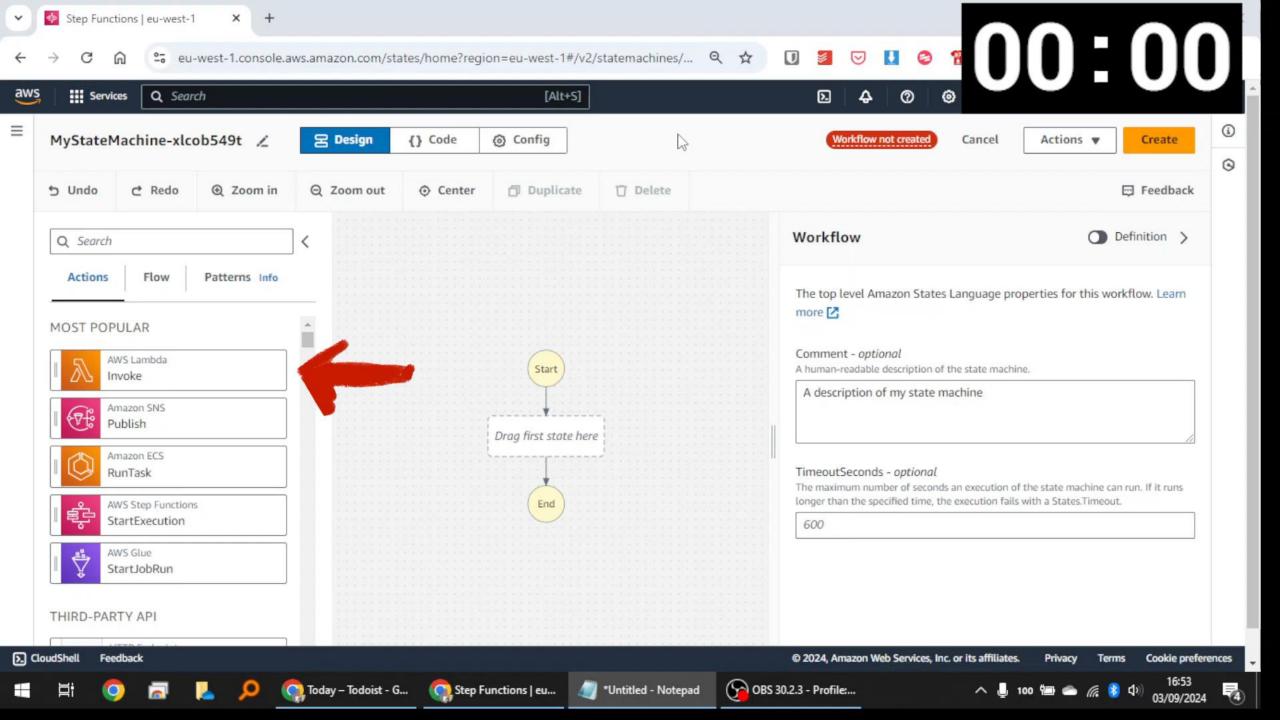
### **AWS Step Functions Demo**



Lambda Function: API Call

Glue Job: ETL

Athena Query: MSCK REPAIR TABLE



## Amazon EventBridge Scheduler



Automate recurring & one-off tasks

Invoke over 220 AWS services

Set times or fixed-rate schedules

Checks target response

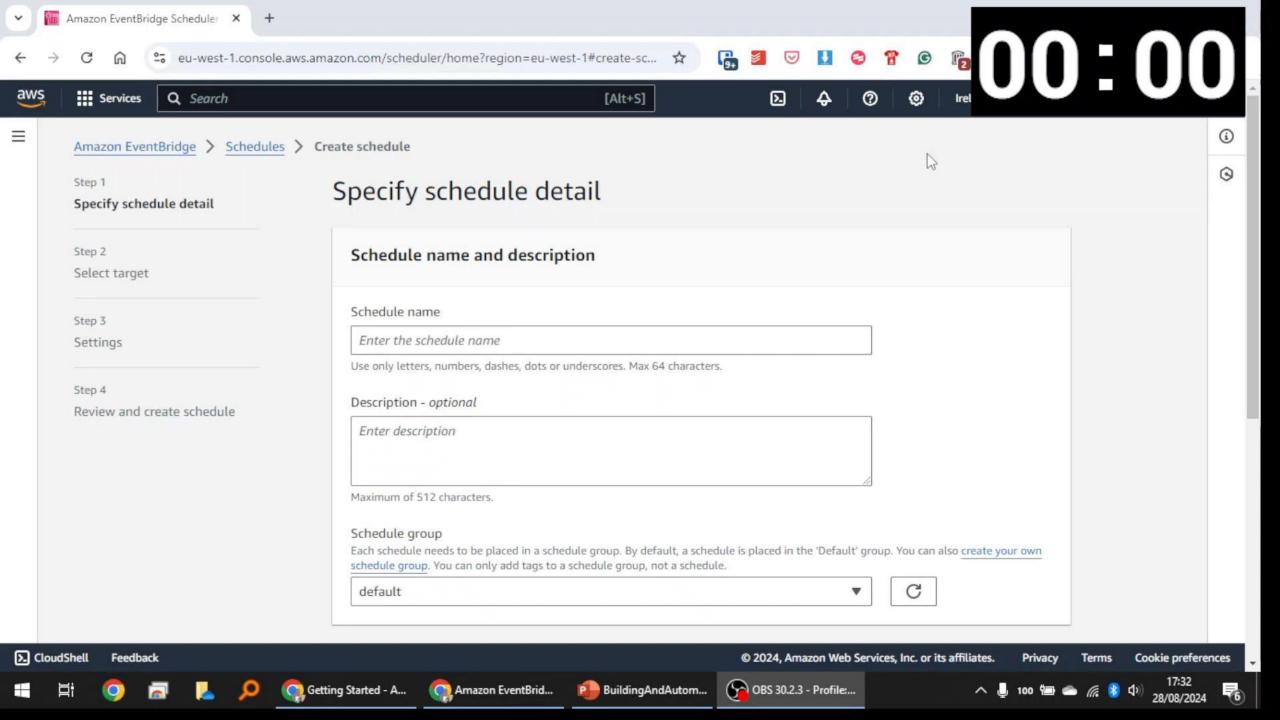
# Amazon EventBridge Scheduler Demo



Set schedule

Link Step Function workflow

Set configuration



## Summary

**Problem Definition** 

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#### Thanks!



MrDamienJones



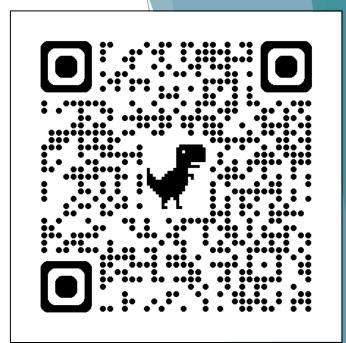
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AWS Community Day NL Feedback



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