

Starting with Lambda Functions



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Outline

Considerations and limitations

- Supported languages
- Size and resource limitations
- Other considerations

Lambda prerequisites

- Gathering dependencies
- Writing code
- Function packages
- Debugging

Deploying our Lambda canary

- Walkthrough

Considerations and Limitations

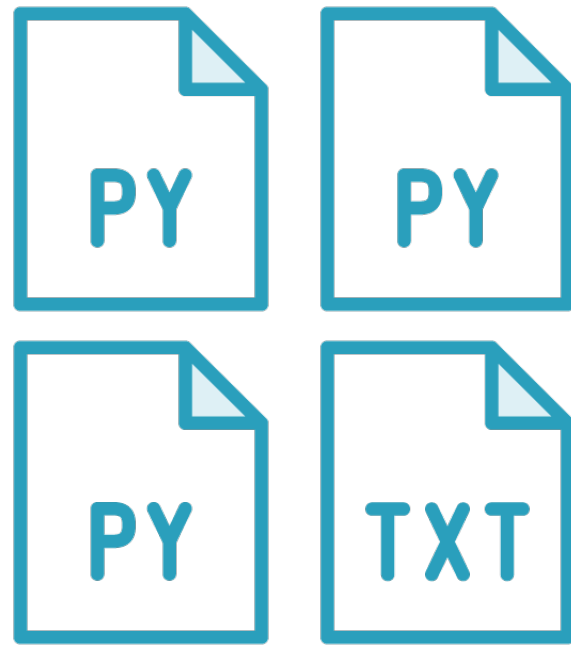
Picking Function Runtimes

Python
(Python 2.7)

Node.js
(v0.10.36, v4.3.2)

Java
(Java 8)

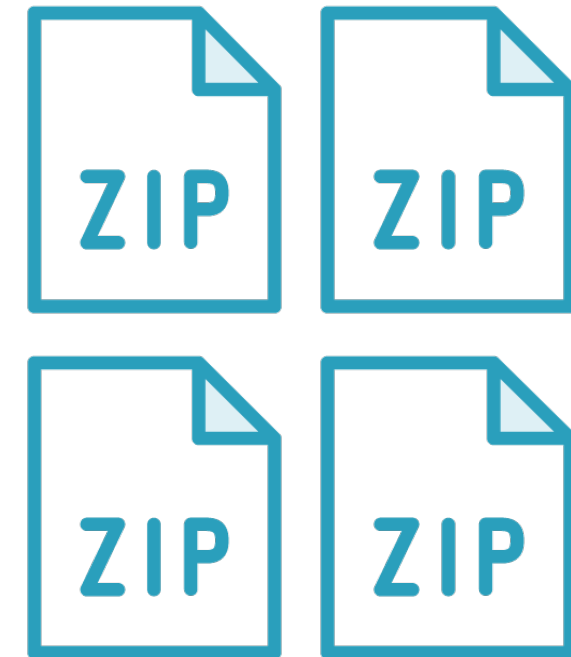
Size Limitations



Uncompressed code &
dependencies
< 250 MB

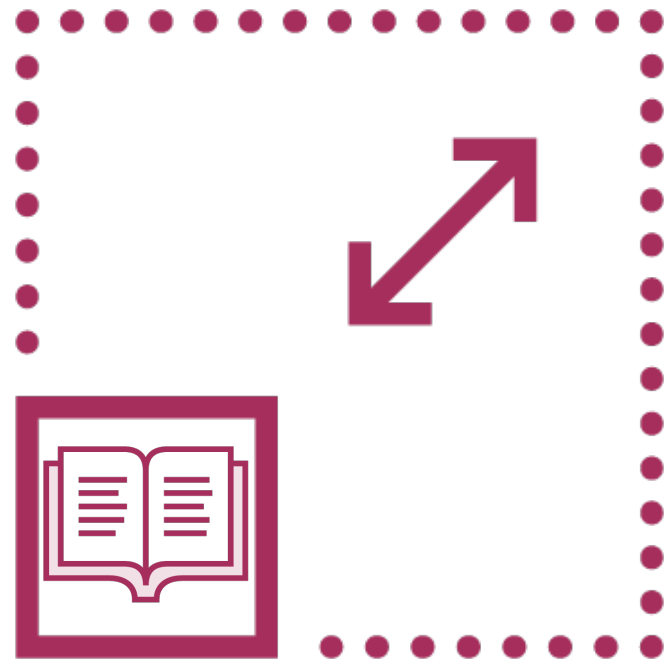


Compressed
function package
< 50MB

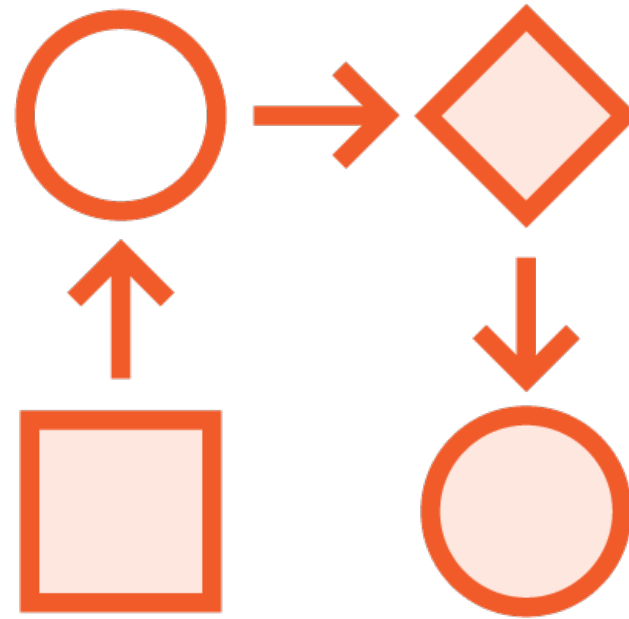


Total function
packages in a
region
< 75 GB

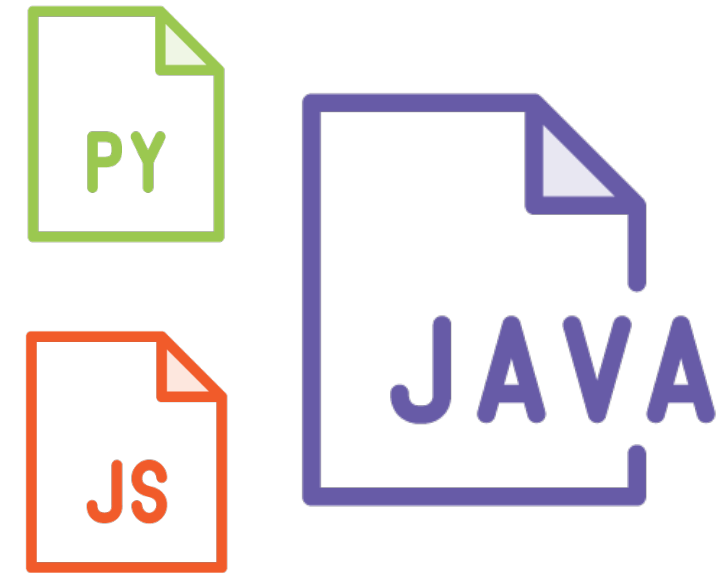
Size Limitations - Workarounds



Smaller libraries



**Microservice
architectures**



**Other runtime
options**

Resource Limitations



**Ephemeral storage
< 512 MB**

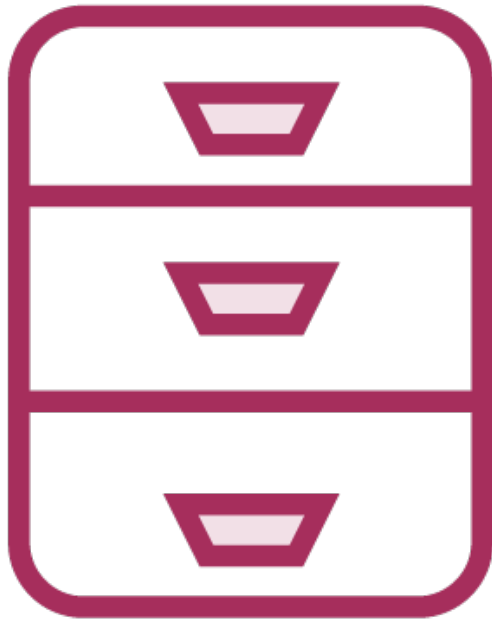


**Maximum execution
duration
< 300 seconds**



**Concurrent Lambda
functions
< 100**

Resource Limitations - Workarounds



**Load and store files
in S3**

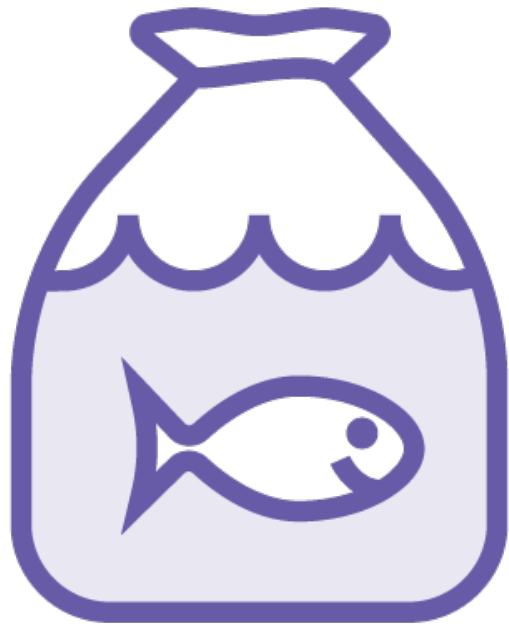


**Chain functions
together**



**Ask AWS about
increasing limits**

Memory, CPU and VPC



Memory
128 MB - 1.5 GB



CPU scales with
memory



Virtual Private
Cloud

AWS Lambda Considerations

Event driven code

**Code size
limitations**

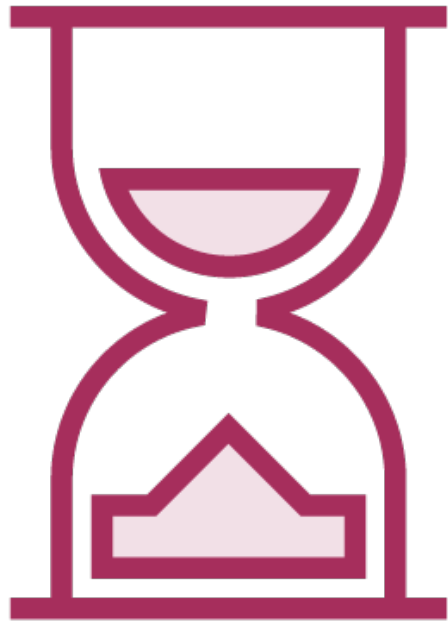
**Lambda as a
component**

**Performance
limitations**

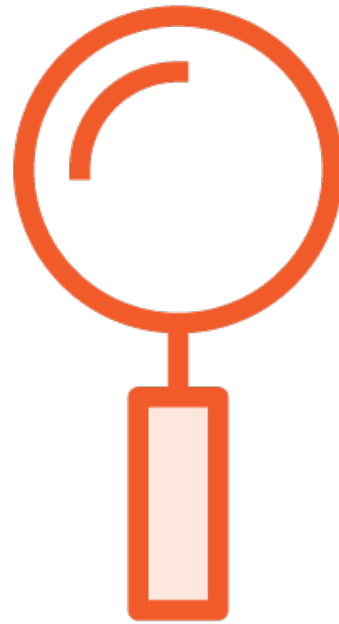
**Long running
workloads**

Lambda Prerequisites

Lambda Canary



Set run interval



**Function reviews
website**



**Website status
recorded**

Gathering Dependencies



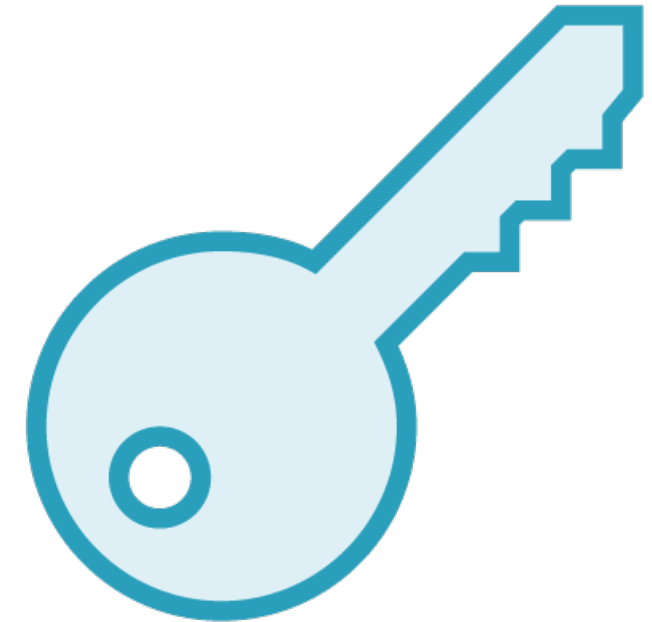
Libraries



Other files



AWS services

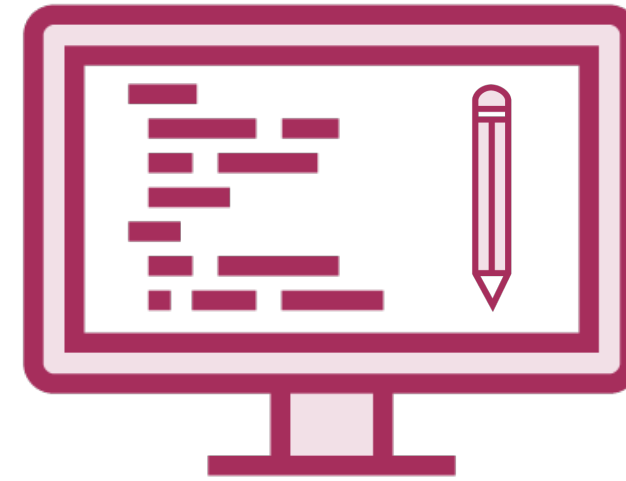


API keys

Writing Code

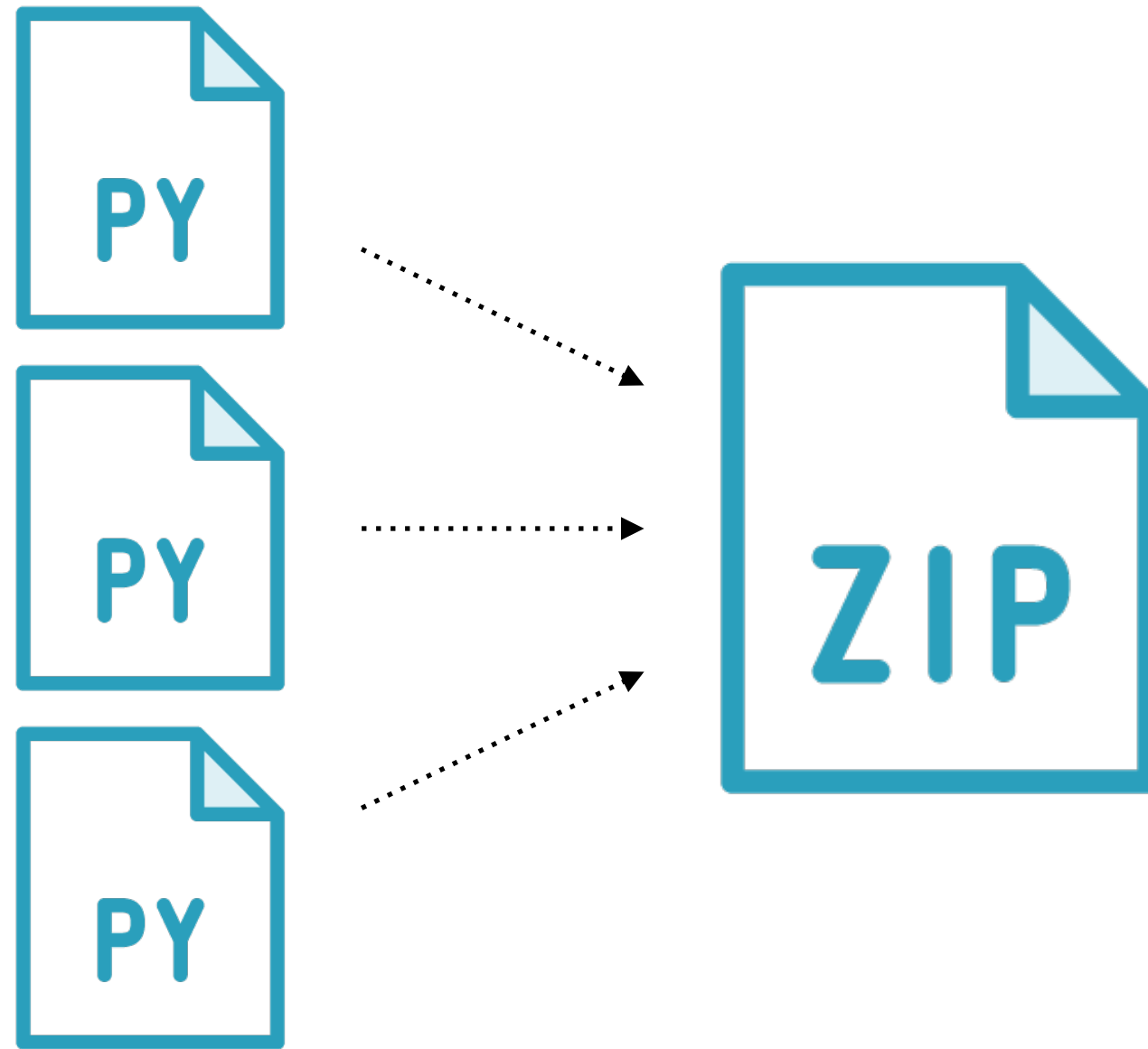


Locally

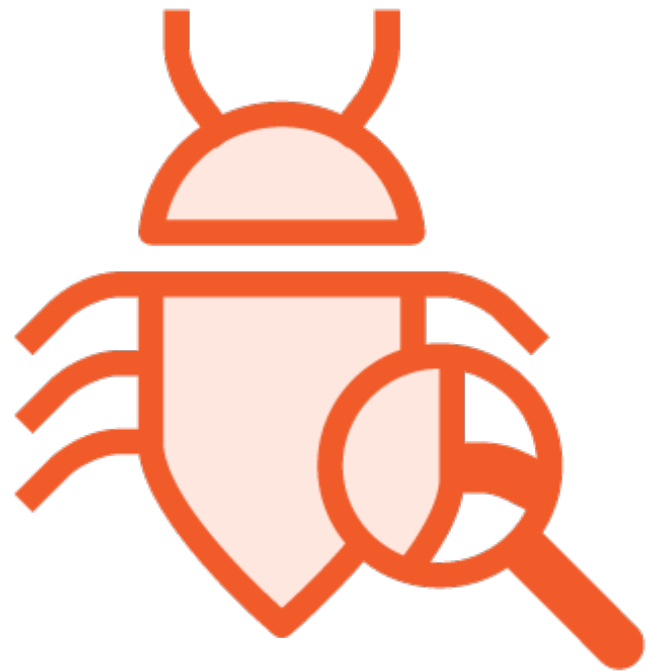


In AWS editor

Creating a Function Package



Debugging



Use logging

Environment differences

Search for your issues

Demo

Deploying the Lambda Canary

- Configure CloudWatch schedule
- Modify the Python function
- Adjust function settings
- Configure a default test
- Review our function results

Summary

What we've done

- Understood Lambda's limitations
- Learned workarounds for limitations
- Deployed first Lambda function
- Setup alerting and monitoring

What's next?

- Integrating Lambda & 3rd party APIs