Principles: Serverless Technology: Lambda, Security (IAM)

Assumptions

Students have completed the "AWS SDK" exercise

Out of class learning activities

AWS Lambda is a way to create functions that automatically run in the cloud in responses to events such as HTTP calls, file uploads, database changes, or the passage of time. Lambda is a "serverless" technology, meaning that you do not have to manage your own server to run your code. Instead, Lambda automatically runs your code when interesting events occur. All you do is upload your code to AWS, tell them when you want your function to run, and they will automatically run it at the right times.

Watch this 3-minute video that gives an overview of AWS Lambda
https://www.youtube.com/watch?v=eOBq__h4OJ4

Use any of the following resources to learn the following:
1. What is AWS Lambda?
2. How to setup an IAM security role for executing Lambda functions
3. How to create a Lambda function
4. How to write log messages from a Lambda function
5. How to test a Lambda function using a "test event"
6. How to view a Lambda function's log

There are lots of other things you can learn about, but these are the basics you will need for this class.

The Lambda Developer Guide provides a tutorial on how to use Lambda with various programming languages
https://docs.aws.amazon.com/lambda/latest/dg/welcome.html

The Pluralsight course named "AWS Developer - An Introduction to AWS Lambda" video provides an introduction to Lambda with examples in Python (you don't really need to know Python to understand it). The first four modules are especially relevant: 1) Course Overview, 2) Understanding Serverless Functions, 3) Working with AWS, and 4) Starting with Lambda Functions

https://app.pluralsight.com/library/courses/aws-developer-introduction-aws-lambda/table-of-contents

The LinkedIn Learning course named "Learning Amazon Web Services Lambda" provides an introduction to Lambda with examples in Python (you don't really need to know Python to understand it). The first three modules are especially relevant: 1) Introduction, 2) Working with the Lambda Console, 3) Lambda Application Development
https://www.linkedin.com/learning/learning-amazon-web-services-lambda