

Intro to the Cloud with Amazon Web Services

Overview

This two day class is an introduction to cloud-based development for software developers who are not familiar with Amazon Web Services yet. The focus is on developing the skills needed to create new web applications and micro services, and then to deploy them on Amazon's cloud infrastructure.

This class is taught in Java, but could be modified for use with Node.js, Ruby, or Python.

Objectives

1. Understand the difference between cloud servers and dedicated hardware
2. Know how to start and connect to a Linux Server running on AWS
3. Learn how to store files on Amazon S3 and retrieve them
4. Explain where using S3 for file storage would be more appropriate than storing files on the server
5. Learn how to start and connect to database instances on AWS
6. Learn how to query for data on relational databases
7. Learn how to query for data on NoSQL databases
8. Be able to explain what an API is, and where to find third-party APIs
9. Understand the basics of RESTful API Design
10. Know the different HTTP methods
11. Create a Java web application that implements a simple REST API
12. Deploy that Java web application to Amazon using Elastic Beanstalk
13. Understand AWS Security Policies and User Management
14. Become familiar with the AWS Management Console

Schedule Day I

Time	Description
8:00-9:30	Introduction to Amazon Web Services
9:30-10:30	Hands on Lab: Setting up and running an AWS EC2 Linux Server
10:30-11:00	Intro to Amazon S3 and Storage
11:00-12:00	Hands on Lab: Working with S3 Buckets
12:00-1:00	Lunch/Break
1:00-2:00	Databases and Amazon Web Services
2:00-5:00	Hands on Lab: Relational and NoSQL Databases on AWS

Schedule Day 2

Time	Description
8:00-9:00	Introduction to APIs, REST, and Postman
9:00-12:00	Hands on Lab: Implementing a REST API in Java
12:00-1:00	Lunch/Break
1:00-2:00	Introduction to AWS Elastic Beanstalk
2:00-5:00	Hands on Lab: Deploying a Java REST API to AWS

Instructor

Jeff Linwood is a software developer with 18 years of professional experience, working with clients in the Fortune 500, state and federal government, non-profits, and startups. Jeff has taught iOS software development at the University of Texas at Austin for the last four years. He also teaches on-site corporate training programs and has delivered training programs at conferences. Jeff also authored several Java programming books for Apress and Wrox.

Jeff has a master's degree from the University of Texas at Austin, and a bachelors degree from Carnegie Mellon University.