

AWS Intro Overview



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Meet Your Instructor

- >> Name: Azat Mardan
- >> Author of 14 books and over 12 online courses, taught over 500 engineers in-person and over 25,000 online (Udemy and Node University)
- >> Works as Capital One Technology Fellow (modeled after IBM and Google Fellows)



Meet Your Instructor (cont)

- >> Master of Science in Information Systems Technology from University of Northern Virginia (2007)
- >> Working on my second Master's degree, this time in Software Engineering and in Harvard University
- >> Twitter: @azat_co, Online: <http://azat.co>

Why I teach this course?

- >> Gizmo: small startup, used Rackspace
- >> Storify: small startup, used Joyent and AWS
- >> DocuSign: didn't use cloud 😞
- >> Capital One: cloud everywhere

Introduce your self by raising hand 🙋

- >> How many years in technology: 1, 2, 4, 8, or 16?
- >> Your main language: Java, Python, Ruby, C, JavaScript, or COBOL?
- >> What are your expectations so that you are 100% satisfied by this course at 5pm?

Turn off your IMs, Slack, Hipchat, email, phones... seriously

Multitasking does NOT work (for work which requires focus)¹

¹ <https://blog.codinghorror.com/the-multi-tasking-myth>, <http://amzn.to/2ojSBzx> and <http://amzn.to/2oTZSDU>

Process

- >> Lectures, demos and hands-on labs – you'll download them soon
- >> Lunch break 12–1pm and 2 smaller breaks before and after
- >> Fill out the sign up sheets and DI evaluation *before* you leave (put in the envelope)
- >> Slides are often just talking points because reading from the slides is boring so pay attention and take notes!
- >> Labs have detailed step by step walk-through

Questions

- >> General questions – ask during the open frame, NOT during the lecture (write it down to remember later)
- >> Specific questions (why XYZ is not working on my computer!?)
 - ask during labs

Table of Contents

Module 1: Cloud and AWS Basics

- >> Why cloud?
- >> Overview of cloud computing
- >> Main concepts: Regions and AZs
- >> Main AWS Services: EC2, S3, EBS, VPC, Glacier, CloudWatch, Alerts
- >> Billing and calculator
- >> Lab 0: Installs

Module 2: Main EC2 Concepts

- >> Images
- >> Types, IAM and User Data
- >> Storage
- >> Tags

Module 2: Main EC2 Concepts (cont)

- >> Key pairs
- >> Security groups
- >> ELB, Elastic IP, VPC and subnets
- >> Stop vs terminate

Module 2: Launching EC2

- >> Demo: Launching EC2
 - >> Launching EC2: images, types, storage, tags
 - >> Creating security groups
 - >> Working with SSH key pairs
 - >> Connecting to EC2
- >> Lab 1: Create an instance with WordPress, connect to it and deploy code

Module 3: Environment and App Deploy Automation

- >> User Data
- >> Demo: User Data for Apache httpd and HTML page
- >> Demo: User Data for a Node app with pm2 (restart on reboot)
- >> Demo: Pulling code from S3, and GitHub
- >> Lab 2: Launching hello world

Module 4: Networking

- >> VPC
- >> Interface
- >> Subnets
- >> ELB
- >> Elastic IP
- >> Demo: Create ELB and 2 EC2 instances with Apache httpd, make one fail – see the other running

Module 5: S3

- >> Buckets
- >> HTTP access
- >> IAM Roles
- >> Versioning and multi-region
- >> Demo: Upload an object to S3 bucket via web console
- >> Lab 4: Server an HTML page from S3

Module 6: Auto Scaling

- >> Alerts and CloudWatch
- >> Demo: Create a launch config, auto scaling group and policy to increase instances
- >> Demo: Create a launch configuration and an autoscaling group, and see if it works
- >> Lab 5: Deploy 2 Node apps under ELB, then load test it to see if autoscaling works

Outro

- >> Summary
- >> AWS Events
- >> AWS Certifications
- >> AWS Books
- >> AWS Courses