
AWS Intro

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Overview

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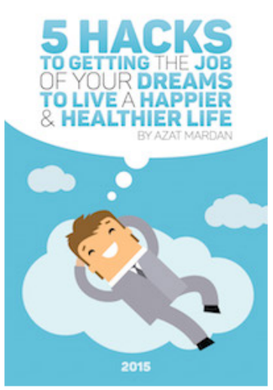
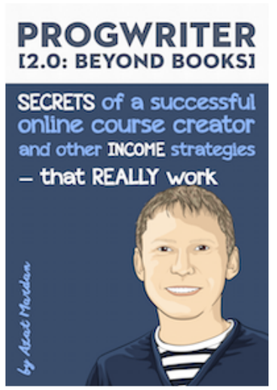
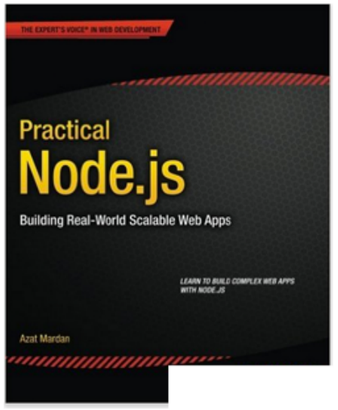
Node University

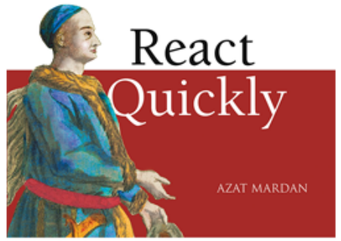
Meet Your Instructor

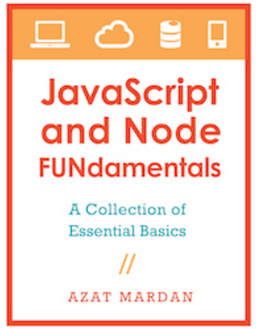
- Name: Azat Mardan
- Author of 14 books and over 12 online courses, taught over 500 engineers in-person and over 25,000 online (Udemy and Node University)
- Works as Capital One Technology Fellow (modeled after IBM and Google Fellows)

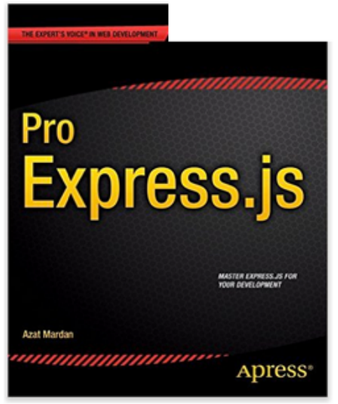


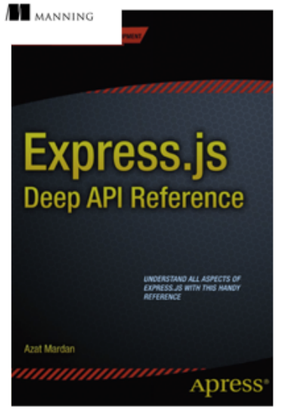












Meet Your Instructor (cont)

- 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

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