DevOps Foundations

with Ernest Mueller and James Wickett

Resources

Would you like to know more? This bibliography provides links to the topics, tools, and resources we reference, as well as additional resources you may find useful as you get into more depth on particular subjects. DevOps is a huge area, so our approach in this course is to prepare you to be able to learn more about it on your own.

Chapter 1: DevOps Basics

Articles

"The Amazing DevOps Transformation of the HP LaserJet Firmware Team" by Gene Kim
"The Andon Cord" by John Willis
"Blameless Postmortems and a Just Culture" by John Allspaw
"Inversion of Control Containers and Dependency Injection Pattern" by Martin Fowler
"DevOps Culture" by John Willis
"DevOps Toolchain" from Wikipedia
"How Complex Systems Fail" by Dr. Richard Cook
"Incident Command for IT: What We Can Learn from the Fire Department" by Brent Chapman
"Keys to SRE" by Ben Treynor
"People over Process over Tools" by Alex Honor
"The Three Ways" by Gene Kim
"Transparent Uptime" by Lenny Rachitsky
"What DevOps Means to Me" by John Willis

Books

Continuous Delivery by Jez Humble and David Farley
Leading the Transformation by Gary Gruver and Tommy Mouser
The Visible Ops Handbook by Gene Kim, Kevin Behr, and George Spafford

Reports

The State of DevOps Report from Puppet Labs (2015) (2016) (2017) (2018) (2019)

Tools and Services

Chaos Monkey from Netflix

Chapter 2: DevOps: A Culture Problem

Courses

DevSecOps: Tips for Success with James Wickett

Articles

"5 Whys" from Wikipedia
"10+ Deploys Per Day: Dev and Ops Cooperation at Flickr" by John Allspaw and Paul Hammond
"adidas DevOps Maturity Framework" from adidas
"Blameless Postmortems and a Just Culture" by John Allspaw
"Conway's Law" from Wikipedia
"DevOps Culture" by Rouan Wilsenach
"Dunbar's Number" from Wikipedia
"A Guideline for Postmortem Communication" by Lenny Rachitsky
"Hanlon's Razor" from Wikipedia
"Is Your Team Too Big? Too Small? What's the Right Number?" from the Wharton School
"Kaizen" from Wikipedia
"Kaizen Glossary" from the Kaizen Institute
"Operations Maturity Model" from Chef.io
"Parkinson's Law" from Wikipedia
"Ringelmann Effect" from Wikipedia
"Shadow IT" from Wikipedia
"Toyota Kata" from Wikipedia
"A Typology of Organisational Cultures" by Ron Westrum
"What Is DevOps?" by Damon Edwards
"When In Japan…" by Ryan Day

Books

Crucial Conversations by Kerry Patterson, Joseph Grenny, Ron McMillan, and Al Switzler
Effective DevOps by Jennifer Davis and Ryn Daniels
Getting to Yes by Roger Fisher and William L. Ury
How to Say It at Work by Jack Griffin
How to Win Friends and Influence People by Dale Carnegie
The No A**hole Rule by Robert I. Sutton
The Phoenix Project by Gene Kim, Kevin Behr, and George Spafford
The Unicorn Project by Gene Kim
Web Operations by John Allspaw and Jesse Robbins

Examples

Public Status Page from Rackspace

Tools and Services

Hubot, a chatbot from the team at GitHub

Chapter 3: The Building Blocks of DevOps

Courses

DevOps Foundations: Lean and Agile with Karthik Gaekwad and Ernest Mueller

Articles

"DevOps Culture" by John Willis
"A DevOps Manifesto" by Ernest Mueller
"ITIL" from Wikipedia
"ITSM" from Wikipedia
"Lean Manufacturing" from Wikipedia
"Manifesto for Agile Software Development"
"Principles behind the Agile Manifesto"
"Value-Stream Mapping" from Wikipedia

Books

Lean Software Development: An Agile Toolkit by Mary Poppendieck and Tom Poppendieck
The Lean Startup by Eric Ries
The Visible Ops Handbook by Gene Kim, Kevin Behr, and George Spafford

Conferences

Devopsdays, Ghent 2009
OpsCamp, Austin 2010

Presentations

"Agile Infrastructure" by Andrew Clay Shafer

Reports

Annual State of Agile Report from VersionOne

Chapter 4: Infrastructure Automation

Courses

DevOps Foundations: Infrastructure as Code with Ernest Mueller and James Wickett

Articles

"AMI Creation with Aminator" by Michael Tripoli and Karate Vick
"Blue-Green Deployment" by Martin Fowler
"Canary Release" by Danilo Sato
"Configuration Management Database" from Wikipedia
"The CMDB Is Dead, Long Live the CMDB" by Rhonabwy
"Golden Image or Foil Ball" by Luke Kanies
"Immutable Delivery" by John Willis
"Immutable Server" by Kief Morris
"Infrastructure as Code" by Martin Fowler
"Server Provisioning" from Wikipedia

Guides

"Awesome Sysadmin tool list" compiled by Francisco Augusto
Infrastructures.org

Presentations

"Architectures for Open and Scalable Clouds" by Randy Bias

Tools and Services

Amazon ECS
Ansible
AWS CloudFormation
Azure Resource Manager Templates
CFEngine
Chef
Chefspec
Collins from Tumblr
Consul
Docker
Docker Swarm
etcd
Foodcritic
Google Kubernetes Engine

Habitat
Hadoop
Juju from Ubuntu
KitchenCI
Kubernetes
Mesos
Ohai
Puppet
Rancher
RuboCop
SaltStack
Terraform from HashiCorp
ZooKeeper for Hadoop

Chapter 5: Continuous Delivery

Courses

DevOps Foundations: Continuous Delivery/Continuous Integration with Ernest Mueller and James Wickett
DevSecOps: Automated Security Testing with James Wickett
DevSecOps: Building a Secure Continuous Delivery Pipeline with James Wickett

Articles

"Deming's 14 Points for Management" by W. Edwards Deming
"What Is TDD, BDD, and ATDD?" by Manoj Kumar

Books

Chaos Engineering by Casey Rosenthal and Nora Jones
Continuous Delivery by Jez Humble and David Farley

Tools and Services

Version Control

Bitbucket
Git
GitHub
Perforce
Subversion

Test

ApacheBench
Cucumber
Cypress
FindBugs
Gauntlt
Gofmt
Golint
JMeter
JUnit
KitchenCI
Protractor
Robot Framework

Continuous Integration

Bamboo
CircleCI
GoCD
Jenkins
TeamCity
Travis CI

RuboCop
Sauce Labs
Selenium

Artifact Repos

Amazon S3
Artifactory
Bintray
Docker Hub
Sonatype Nexus

Build

fpm
Gulp
Make
Maven
Packer
Rake

Deployment

Deployinator
Rundeck
Spinnaker
ThoughtWorks
UrbanCode
XebiaLabs

Tool discovery trick: Google the name of a tool followed by "vs" to get suggestions of that tool versus other tools in its space other people are asking about.

Chapter 6: Reliability Engineering

Courses

DevOps Foundations: Effective Postmortems with Ernest Mueller

DevOps Foundations: Incident Management with Ernest Mueller

DevOps Foundations: Monitoring and Observability with Peco Karayanev and Ernest Mueller

DevOps Foundations: Site Reliability Engineering with Ernest Mueller and James Wickett

Articles

Architecture Descriptions by Martin Fowler
"AWS Outage: How Netflix Weathered the Storm by Preparing for the Worst"
"Code Profiling" from Wikipedia
"Devops Areas: Codifying Devops practices" by Patrick Debois
"Frequency Reduces Difficulty" by Martin Fowler
"How Complex Systems Fail" by Dr. Richard Cook
"Reliability Engineering" from Wikipedia
"The Twelve-Factor App"

Books

Building Secure & Reliable Systems (free online version) by Heather Adkins, Betsy Beyer, Paul Blankinship, Ana Oprea, Piotr Lewandowski, and Adam Stubblefield
Chaos Engineering by Casey Rosenthal and Nora Jones
Design Patterns by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides
Logging and Log Management by Anton Chuvakin, Kevin Schmidt, and Chris Phillips
Release It!, 2nd Edition by Michael Nygard
Site Reliability Engineering (dead tree version) and *Site Reliability Engineering* (free online version) edited by Betsy Beyer, Chris Jones, Jennifer Petoff, and Niall Richard Murphy
The Site Reliability Workbook (free online version) edited by Betsy Beyer, Niall Richard Murphy, David K. Rensin, Kent Kawahara, and Stephen Thorne

Presentations and Reports

"A Lean Cloud Monitoring Checklist" by Ernest Mueller
The State of DevOps Report from Puppet Labs (2015) (2016) (2017) (2018) (2019)

Tools and Services

AppDynamics	Grafana	Librato	Pingdom	StatusPage
Chaos Monkey	Graphite	Logentries	Prometheus	SumoLogic
Datadog	Honeycomb	Metrics	Rerun	Sysdig
Dynatrace	Hystrix	Nagios	Rundeck	VictorOps
ELK Stack	Icinga	New Relic	Sensu	
Flapjack	InfluxDB	OpenTSDB	Splunk	
Ganglia	Instana	PagerDuty	Statsd	

Blogs, Groups, and Social Media

Learning from Incidents in Software
SNAFUcatchers Consortium for Resilient Internet-Facing Business IT

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Chapter 7: Additional DevOps Resources

Articles

"The DevOps Donkey Represents the Rest of Us" by Alan Shimel

Conferences

All Day DevOps
AWS re:Invent
ChefConf
DevOpsDays
DevOps Enterprise Summit (DOES)
GoTo DevOps Conference List
Monitorama
Scale

Books

Continuous Delivery by Jez Humble and David Farley
DevOps Handbook, The by Gene Kim, Jez Humble, Patrick Debois, and John Willis
Effective DevOps by Jennifer Davis and Ryn Daniels
Leading the Transformation by Gary Gruver and Tommy Mouser
Lean Software Development: An Agile Toolkit by Mary Poppendieck and Tom Poppendieck
Phoenix Project, The by Gene Kim, Kevin Behr, George Spafford
Practice of Cloud System Administration, The by Thomas A. Limoncelli, Strata R. Chalup, and Christine Hogan
Release It!, 2nd Edition by Michael Nygard
Visible Ops Handbook, The by Gene Kim, Kevin Behr, and George Spafford
Web Operations by John Allspaw and Jesse Robbins

Blogs, Groups, and Social Media

The Agile Admin by Ernest Mueller, James Wickett, Peco Karayanev, and Karthik Gaekwad
Arrested DevOps (@arresteddevops) by Matt Stratton, Trevor Hess, and Bridget Kromhout
Continuous Delivery by Jez Humble
dev2ops by Damon Edwards and Alex Honor
DevOps.com (@devopsdotcom), chief editor: Alan Shimel
DevOps Cafe by John Willis and Damon Edwards
Devops Weekly mailing list by Gareth Rushgrove
DZone
Food Fight (@foodfightshow) by Nathen Harvey
InfoQ
IT Revolution Press by Gene Kim (and others)
JEDI by Patrick Debois
Kitchen Soap by John Allspaw
More Than Seven by Gareth Rushgrove
The Ship Show by J. Paul Reed, Sascha Bates, Pete Cheslock, and Youssuf El-Kalay
Stochastic Resonance by Andrew Clay Shafer

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Chapter 8: The Future of DevOps

Courses

DevSecOps: Automated Security Testing with James Wickett
DevSecOps: Building a Secure Continuous Delivery Pipeline with James Wickett
DevSecOps: Burning Questions with James Wickett
DevSecOps: Tips for Success with James Wickett

Articles

"8 Surprising Facts about Real Docker Adoption" from Datadog
"The MEASURE of DevSecOps" from Verica.io
"The Rugged Manifesto"

Blogs, Groups, and Social Media

DevSecOps
Absolute AppSec podcast

Reports

Dear Auditor from IT Revolution
The DevOps Audit Defense Toolkit from IT Revolution Press
DevSecOps Community Survey 2019 from Sonatype
State of the Cloud Report from Flexera
An Unlikely Union: DevOps and Audit from IT Revolution

Tools and Services

Aqua Container Security
AWS Cloud Development Kit
AWS Lambda
AWS Serverless Application Model
Chef Audit and Compliance Framework: InSpec
Docker Hub
Gauntlt

Kubernetes
Serverless Framework
Signal Sciences
Sonatype
Threat Stack
Zappa

Chapter 9: Conclusion

Tools and Services

Amazon Web Services
Docker
GitHub
Jenkins

Jenkins Docker Container
Terraform
Terraform Docker Container

More from Your Instructors

@ernestmueller – Ernest Mueller on Twitter
@wickett – James Wickett on Twitter
The Agile Admin – Ernest Mueller, James Wickett, Karthik Gaekwad, and Peco Karayanev

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