Schedule and outline

Texts

- DevOps for Web Development (Abbreviated as DWD below)
- The phoenix project

Week 1 (Aug 24 - 28)

- Topics:
  - Continuous Deployment & Integration
  - Git
- Readings:
  - What is Dev Ops
  - Youtube video
  - DWD-ch 1
  - Continuous Integration
  - Git intro
  - Version Control
  - DWD-ch 2
  - [The phoenix project] Chapters 1 - 2
- Slides:
  - Intro
  - More Intro
  - Git basics
  - Git hello world
  - Basic git
  - Branching and merging
- Notes:
  - Create EC2 instance
- Assignments:
  - Assignment 1 - AWS

Week 2 (Aug 31 - Sep 4)

- Topics:
  - Cloud overview
  - Connecting to EC2 again
  - Our sample petClinic project
  - Jenkins
- Readings:
  - The phoenix project (3-6)
  - DWD-ch 2
  - DWD-ch 3
- Slides:
  - Chapter 2
  - Slides
- Notes:
- Assignments:
  - Assignment 2 - Git
  - Assignment 3 - Production VM
  - Assignment 4 - Jenkins
Week 3 (Sep 7 - 11)

- Topics:
  - The phoenix project (7-10)
- Slides:
- Assignments:
  - Assignment - Jenkins 2
  - Assignment - Jenkins Pipelines

Week 4 (Sep 14 - 18)

- Topics:
  - Jenkins - Deployment to Tomcat
- Assignments:
  - Assignment - Jenkins Production
- Readings:
  - reading phoenix (11-14)
  - wip

Week 5 (Sep 21 - 25)

Exam 1

- Topics:
  - Vagrant
- Readings:
  - reading phoenix (15-18)
- Slides:
  - Slides

Week 6 (Sep 28 - Oct 2)

- Topics:
  - Vagrant
  - AWS vagrant
- Slides:
  - Slides
  - AWS Vagrant
- Assignments:
  - Vagrant local
  - Vagrant AWS
- Readings:
  - reading phoenix (19-22)

Week 7 (Oct 5 - 9)

- Topics:
  - Automated Configuration (Configuration Management)
  - Ansible
  - Ansible Playbooks
  - Vagrant + Ansible
- Readings:
  - How ansible works
  - Benefits of CM
  - Ansible Getting Started (Also covered in my slides)
  - Ansible Playbooks Intro
  - More about playbooks
  - reading phoenix (23-26)
• Slides:
  ▪ Ansible 1
  ▪ Ansible 2
• Assignments:
  ▪ Ansible - Tomcat
  ▪ Ansible - Users

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**Week 8 (Oct 12 - 14)**

*Fall Break*

• Topics:
  ▪ Continue with automation
• Readings:
  ▪ See above
• Assignments:
  ▪ Ansible & Vagrant on AWS

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**Week 9 (Oct 19 - 23)**

• Review: Kahoot
• Exam 2
• Topics:
• Readings:
  ▪ reading phoenix (27-30)
• Assignments:
  ▪ Cloud 1

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**Week 10 (Oct 26 - 30)**

• Topics:
  ▪ Cloud
• Readings:
  ▪ Materials given
  ▪ reading phoenix (31-34)
• Assignments:
  ▪ Cloud 2
  ▪ Cloud 3

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**Week 11 (Nov 2 - 6)**

• Topics:
  ▪ Cloud
• Readings:
  ▪ Materials given
  ▪ phoenix up through end of book
• Assignments:
  ▪ Cloud 4

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**Week 12 (Nov 9 - 13)**

• AWS Exam (Exam 3)
• Topics:
  ▪ Docker
• Readings:
• Slides:
  ▪ intro
  ▪ files app.py requirements.txt
Week 13 (Nov 16 - 20)

- Assignments:
  - Assignment - Docker
- Topics:
  - Continuous Monitoring
  - Nagios
- Readings:
  - Continuous Monitoring
- Video:
  - Monitoring for DevOps and Microservices
- Assignments:
  - Assignment - Nagios
- Slides

Week 14 (Nov 23)

Thanksgiving

- Microservices
- Readings:
  - Monolithic pattern
  - Microservice pattern
  - Breaking away from the monolith
  - The 12 factor app
- Slides
- Assignments:
  - Assignment - Presentation
  - Final paper on Phoenix

Week 15 (Nov 30 - Dec 4) (Online only this week)

Monday - Presentations
Wednesday - Presentations

Final - See date on syllabus