Schedule and outline

Week 1 (Aug 22 - 26)

- Topics:
  - Continuous Deployment & Integration
  - Git
- Readings:
  - What is Dev Ops
  - Youtube video
  - Version Control
- Notes:
- Assignments:
  - Assignment 1 - GIT

Week 2 (Aug 29 - Sep 2)

- Topics:
  - Cloud overview
  - Scripting
  - YAML
- Readings:
  - Learn X in Y Minutes
  - YAML A Beginners Guide
- Notes:
- Assignments:
  - Assignment 2 - Scripting
  - Assignment 3 - YAML

Week 3 (Sep 6 - 11)

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

Week 4 (Sep 13 - 18)

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

Week 5 (Sep 20 - 25)

Exam 1

- Topics:
Week 6 (Sep 27 - Oct 2)

- Topics:
  - Terraform
- Slides:
  - Vagrant Slides
  - Terraform Slides
  - Terraform From Jenkins
- Assignments:
  - Vagrant local
  - Terraform
  - Terraform and Jenkins
- Readings:
  - reading phoenix (15-18)

Week 7 (Oct 4 - 9)

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

Week 8 (Oct 11 - 14)

Fall Break

- Topics:
  - Continue with automation
- Readings:
  - See above
- Assignments:
  - Ansible - Tomcat

Week 9 (Oct 18 - 23)

- Review: Kahoot
- Exam 2
Topics:
  - Docker
  - intro
  - files app.py requirements.txt
Readings:
  - reading phoenix (27-30)
Assignments:
  - Assignment - Docker

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**Week 10 (Oct 25 - 30)**

- Topics:
- Readings:
  - Materials given
  - reading phoenix (31-34)
- Slides:
- Assignments:
  - All day devops conference link

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**Week 11 (Nov 1 - 6)**

- Topics:
  - More docker c*
  - Deploy using Elastic Beanstalk on AWS
- Slides:
- Readings:
  - Materials given
  - phoenix up through end of book
- Assignments:
  - Assignment - Cloud

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**Week 12 (Nov 8 - 13)**

- Topics:
  - Guest speakers ?
  - Ben @ O.C. Tanner
  - Brock @ seint nov 12
- Readings:
- Assignments:

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**Week 13 (Nov 15 - 20)**

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

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**Week 14 (Nov 22)**

*Thanksgiving*

- Microservices
- Readings:
• Monolithic pattern
• Microservice pattern
• Breaking away from the monolith
• The 12 factor app

• Slides
• Assignments:
  • Final paper on Phoenix
  • Assignment - Presentation

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**Week 15 (Nov 29 - Dec 4)**

• Presentations

Final - See date on syllabus