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)
  - win

Week 5 (Sep 21 - 25)

Exam 1

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

Week 6 (Sep 28 - Oct 2)

- Topics:
  - Terraform
- Slides:
  - Vagrant Slides
  - Terraform Slides
  - Terraform From Jenkins
- Assignments:
  - Vagrant local
  - Terraform
  - Terraform and Jenkins
- 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)
Week 8 (Oct 12 - 14)

* Fall Break

Topics:
- Continue with automation

Readings:
- See above

Assignments:
- Ansible - Tomcat

Week 9 (Oct 19 - 23)

Review: Kahoot

Exam 2

Topics:

Readings:
- reading phoenix (27-30)

Assignments:
- Cloud 1

Week 10 (Oct 26 - 30)

Topics:
- Cloud

Readings:
- Materials given
- reading phoenix (31-34)

Slides:
- Cloud basics
- GCP basics

Assignments:
- Cloud 2

Week 11 (Nov 2 - 6)

Topics:
- Docker

Slides:
- intro

Readings:
- files app.py requirements.txt
- Materials given
- phoenix up through end of book

Assignments:
- Assignment - Docker

Week 12 (Nov 9 - 13)
Week 13 (Nov 16 - 20)

- Topics:
  - Continuous Monitoring
  - Nagios
- Readings:
  - Continuous Monitoring
- Video:
  - Monitoring for DevOps and Microservices suggested
- 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 Wait for further notice
  - Final paper on Phoenix

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

Monday - Presentations Wednesday - Presentations

Final - See date on syllabus