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:
  - 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 - Users

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:
  - Final paper on Phoenix

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

Work on paper Study for exam

Final - See date on syllabus