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)
- Ansible Playbooks Intro
- More about playbooks
- reading phoenix (23-26)

- Slides:
  - Ansible 1
  - Ansible 2

- Assignments:
  - Ansible - Tomcat

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

*Fall Break*

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

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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)
- Slides:
  - Cloud basics
  - GCP basics
- Assignments:
  - Cloud 2

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**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

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**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