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 - 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)
• Topics:
  ◦ Guest speakers ?
  ◦ All day devops
• Readings:
• Assignments:

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**Week 13 (Nov 16 - 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 23)**

*Thanksgiving*

• Microservices
• Readings:
  ◦ [Monolithic pattern](#)
  ◦ [Microservice pattern](#)
  ◦ [Breaking away from the monolith](#)
  ◦ [The 12 factor app](#)
• Slides
• Assignments:
  ◦ Final paper on Phoenix

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

Work on paper Study for exam

Final - See date on syllabus