Schedule and outline

Texts

- Proxmox Admin guide (PX)

Week 1 (Aug 23 - 27)

- Topics:
  - Hypervisors
  - Types of virtualization
  - Virtualization with Proxmox
  - connect iso to proxmox
  - Virtual Machines
- Readings:
  - PX 1, PX 2.3.1, 2.3.2
  - Explained by vmware
- Slides:
  - Intro Slides
  - More Slides
  - Proxmox Chapter 1
- Notes:
  - Movie - Connect to proxmox with tunnel from mac/linux
  - Movie - install vm
- Assignments:
  - Project 1 - Research
  - Also begin project 2

Week 2 (Aug 30 - Sep 3)

- Topics:
  - More on VMs
  - NFS and proxmox
  - Clustering
- Readings:
  - PX 5 (Explanation of the GUI) (review if needed)
  - PX 10
- Slides:
  - Proxmox Chapter 10
- Notes:
  - TrueNas Install
  - TrueNas NFS
  - TrueNas networking
- Assignments:
  - Equipment List
  - Proxmox Install

Week 3 (Sep 6 - Sep 10)

- Topics:
  - Clustering
  - High availability
- Readings:
  - PX 6
- Slides:
  - Proxmox Chapter 6
  - Proxmox Chapter 8
- Notes:
  - Add node to cluster
Assignments:
- FreeNAS Install
- Template creation
- Proxmox HA

Week 4 (Sep 13 - 17)

- Topics:
  - Finish up, Proxmox exam
  - Review
- Readings:
  - Proxmox 8
- Assignments:
  - Proxmox Stats

Week 5 (Sep 20 - 24)

- Topics:
  - containers
  - docker
- Readings:
  - LXC vs Docker
  - Good overview video of Docker
  - Containers vs Vms
- Slides:
  - Containers
  - Docker 1
  - Docker 2
  - Docker 3
- Assignments:
  - Docker - hello
  - Docker - identidock
  - Docker - webapp

Week 6 (Sep 27 - Oct 1)

- Topics:
  - More Docker
  - docker compose
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Slides:
  - Docker storage
  - Docker compose
- Assignments:
  - Docker - Mysql Apache

Week 7 (Oct 4 - 8)

- Topics:
  - More Docker
  - docker compose
- Assignments:
  - Docker - bind mounts

Week 8 (Oct 11 - 14)
• Review
• Docker Exam
• Fall Break

Week 9 (Oct 18 - 22)

• Topics:
  ◦ Kubernetes
  ◦ demo
• Readings:
  ◦ K8S tutorial
  ◦ K8s overview
• Slides:
  ◦ Slides
  ◦ Slides
• Assignments:

Week 10 (Oct 25 - Oct 29)

• Topics:
  ◦ Kubernetes
• Slides:
  ◦ Slides
• Assignments:
  ◦ K8s sentiment
  ◦ K8s wordpress

Week 11 (Nov 1 - 5)

• Topics:
  ◦ More kubernetes
• Slides:
  ◦ Slides
  ◦ Slides
• Assignments:

Week 12 (Nov 8 - 12)

• Topics:
  ◦ More kubernetes
  ◦ Cloud?
  ◦ Walkthrough
• Slides:
  ◦ Cheatsheet 1
  ◦ Cheatsheet 2
• Assignments:
  ◦ K8s php and redis

Week 13 (Nov 15-19)

• Topics:
  ◦ More kubernetes
  ◦ Slides
  ◦ Example backend
  ◦ Example frontend
  ◦ Cloud howto
• Assignments:
  ◦ K8s pokemon
Week 14 (Nov 22)

- Topics:
  - Kubernetes exam
  - Canvas exam
  - ** Thanksgiving **

Week 15 (Nov 29 - Dec 3)

- Topics:
- Assignments:
  - [Presentation Instructions](#)
- Monday - Presentations
- Wed - Presentations
- Day of finals?