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?