Schedule and outline

Texts

- Virtualization for Dummies (Dummies)
- ESXi Documentation from VMware
- Learning VMware Vsphere (LVV)
- Proxmox Admin guide (PX)

Week 1 (Aug 24 - 28)

- Topics:
  - Hypervisors
  - Types of virtualization
  - Virtualization with Proxmox
  - connect iso to proxmox
  - Virtual Machines
- Readings:
  - Dummies chapter 1,3
  - 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 31 - Sep 4)

- 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:
  - FreeNas Install
  - FreeNas NFS
  - FreeNas networking
- Assignments:
  - Proxmox Install

Week 3 (Sep 7 - Sep 11)

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

---

**Week 4 (Sep 14 - 18)**

• Topics:
  • Finish up, Proxmox exam
  • REview
• Readings:
  • Proxmox 8
• Assignments:
  • Proxmox Stats

---

**Week 5 (Sep 21 - 25)**

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

---

**Week 6 (Sep 28 - Oct 2)**

• 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 5 - 9)**

• Topics:
  • Kubernetes
• Readings:
  • demo
• Slides:
  • K8S tutorial
Week 8 (Oct 12 - 15)

- Topics:
  - Kubernetes
  - K8s yml files

Week 9 (Oct 19 - 23)

- Topics:
  - Kubernetes
- Slides:
  - Slides
- Assignments:

Week 10 (oct 26 - Oct 30)

- Topics:
  - More kubernetes
- Slides:
  - Slides
  - Slides
- Assignments:
  - K8s wordpress

Week 11 (nov 2 - 6)

- Topics:
  - More kubernetes
  - Cloud?
  - Walkthrough
- Slides:
- Assignments:
  - K8s php and redis

Week 12 (nov 9 - 13)

- Topics:
  - More kubernetes
  - Slides
- Assignments:
  - K8s pokemon
  - K8s cloud

Week 13 (nov 16-20)

- Topics:
  - Slides
  - Example backend
  - Example frontend
**Week 14 ( Nov 23)**

- Topics:
  - Kubernetes exam
  - Canvas exam
  - ** Thanksgiving **
- Assignments:
  - [Presentation Instructions](#)

**Week 14 ( Nov 30 - Dec 4)**

- Monday - Presentations
- Wed - Presentations