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
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:
  - K8S tutorial
- Slides:
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