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

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**Week 4 (Sep 13 - 17)**

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

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**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

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**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

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**Week 7 (Oct 4 - 8)**

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

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**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:
• Assignments:
  • K8s php and redis

Week 13( nov 15-19)

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

Week 14( nov 22)
• Topics:
  • Slides
  • Example backend
  • Example frontend
  • ** Thanksgiving **

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**Week 15( Nov 29 - Dec 3)**

• Topics:
  • Kubernetes exam
  • Canvas exam

• Assignments:
  • [Presentation Instructions](#)

• Monday - Presentations
• Wed - Presentations
• Day of finals?