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
  - RReview
- Readings:
  - Proxmox 8
- Assignments:
  - Proxmox Stats

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**Week 5 (Sep 20 - 24)**

- 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

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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:
  - Kubernetes
  - demo
- Readings:
  - K8S tutorial
- Slides:
  - Slides
• Assignments:
  • K8s sentiment

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**Week 8 (Oct 11 - 14)**

• Topics:
  • Kubernetes
  • K8s yml files

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**Week 9 (Oct 18 - 22)**

• Topics:
  • Kubernetes
• Slides:
  • Slides
• Assignments:

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**Week 10 (Oct 25 - Oct 29)**

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

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**Week 11 (Nov 1 - 5)**

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

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**Week 12 (Nov 8 - 12)**

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

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**Week 13 (Nov 15-19)**

• Topics:
  • Slides
  • Example backend
  • Example frontend

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**Week 14 (Nov 22)**
• Topics:
  ◦ Kubernetes exam
  ◦ Canvas exam
  ◦ **Thanksgiving**

• Assignments:
  ◦ Presentation Instructions

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**Week 14 (Nov 29 - Dec 3)**

• Monday - Presentations
• Wed - Presentations