Schedule and outline

Texts

- Proxmox Admin guide (PX)

Week 1 (Aug 22 - 26)

- Topics:
  - Hypervisors
  - Types of virtualization
  - Virtualization with Proxmox
  - connect iso to proxmox
  - Virtual Machines
  - NFS and proxmox
- 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
  - Equipment List
  - TrueNas Install
  - TrueNas NFS
  - TrueNas networking
  - Add node to cluster
- Assignments:
  - Project 1 - TrueNas
  - Also begin project 2

Week 2 (Aug 29 - Sep 2)

- Topics:
  - More on VMs
  - Clustering
- Readings:
  - PX 5 (Explanation of the GUI) (review if needed)
  - PX 10
- Slides:
  - Proxmox Chapter 10
  - Proxmox Chapter 3
  - Proxmox Chapter 6
- Notes:
- Assignments:
  - Proxmox Install
  - VM Install

Week 3 (Sep 5 - Sep 9)

- Topics:
  - High availability
- Readings:
  - PX 6
- Slides:
  - Proxmox Chapter 15
Week 4 (Sep 12 - 16)

- Topics:
  - Finish up, Proxmox exam
  - Review
- Readings:
  - Proxmox 7
- Assignments:
  - Microservice

Week 5 (Sep 19 - 23)

- Topics:
  - containers
  - docker
- Readings:
  - Docker Training (Try all 3 tutorials)
  - Containers vs Vms
- Slides:
  - Containers
  - Docker 1
  - Docker 2
  - Docker 3
- Assignments:
  - Docker - intro
  - Docker - pluralsight
  - Docker - React

Week 6 (Sep 26 - Sep 30)

- Topics:
  - More Docker
  - docker compose
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Slides:
  - Docker storage
  - Docker compose
- Assignments:
  - Docker - Bind Mounts

Week 7 (Oct 3 - 7)

- Topics:
  - More Docker
  - docker compose
- Assignments:
  - Docker - Apache & MySQL
  - Docker - AWS and ECS
Week 8 (Oct 10 - 14)

- Review
- Docker Exam
- Fall Break

Week 9 (Oct 17 - 21)

- Topics:
  - Kubernetes
  - demo
- Readings:
  - K8S tutorial
  - K8s overview
- Slides:
  - Slides
  - Slides
- Assignments:

Week 10 (Oct 24 - Oct 28)

- Topics:
  - Kubernetes
- Slides:
  - Slides
- Assignments:
  - K8s sentiment
  - K8s wordpress

Week 11 (Oct 31 - Nov 4)

- Topics:
  - More kubernetes
- Slides:
  - Slides
  - Slides
- Assignments:

Week 12 (Nov 7 - 11)

- Topics:
  - More kubernetes
  - Cloud?
  - Walkthrough
- Slides:
  - Cheatsheet 1
  - Cheatsheet 2
- Assignments:
  - K8s php and redis

Week 13 (Nov 14-18)

- Topics:
  - More kubernetes
  - Slides
  - Example backend
  - Example frontend
Week 14 (nov 21)

- Topics:
  - Kubernetes exam
  - Canvas exam
  - **Thanksgiving**

Week 15 (Nov 28 - Dec 2)

- Topics:
- Assignments:
  - Presentation Instructions
- Monday - Presentations
- Wed - Presentations

Week 16 (Dec 5 - Dec 9)