Schedule and outline

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

Week 1

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:
- Assignment
- Also begin project 2

Week 2

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:
- Assignment
- Assignment

Week 3

Topics:
- Clustering
- High availability

Readings:
- PX 6

Slides:
Proxmox
Proxmox Chapter 6
Proxmox Chapter 8

Notes:
Add node to cluster

Assignments:
Assignment
Assignment

Week 4

Topics:
Finish up, Proxmox exam
Review
Readings:
Proxmox 8
Assignments:
Assignment

Week 5

Virtual Machines
Readings:
LVV chapter 2
LVV chapter 5
LVV chapter 6
My how-tos:
Install ESXI
Connect to ISO
Install VMware Tools Linux
Slides:
ESXI review
VMware VCSA
Assignments:
Install Esxi

Week 6

Readings:
LVV chapter 3
LVV Chapter 8
LVV Chapter 4
vsphere Distributed Switch Architecture
DRS
Slides:
VCSA Objects
VMWare machines
Virtual Network
Distributed switch
DRS
High Availability
My How To’s:
create cluster
Mount more hosts to nfs
Create vms on VCSA
Enable DRS
Create an eSXI port group and new vswitch video
Create distributed switch
Enable vmotion
Assignments:
Install VCSA
Week 7

- Exam on VMWare (Testing Center)
- 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 8

- Topics:
  - More Docker
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Assignments:
  - Docker - Mysql Apache

Week 9

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

Week 10 (oct 28 - Nov 2)

- Topics:
  - Kubernetes
  - K8s yml files
- Slides:
  - Slides
- Assignments:
  - K8s wordpress

Week 11 (nov 3- 10)
Topics:
- More kubernetes
- Kubernetes on GCP

Slides:
- Slides

Assignments:
- K8s php and redis

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**Week 12 (nov 11-17)**

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

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**Week 13 (nov 18-24)**

- Topics:
  - Monday - Docker exam
  - Wed - Kubernetes exam
  - Fri - Canvas exam

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**Week 14 (nov 25)**

- Topics:
  - Monday - Prep for presentations
  - ** Thanksgiving **
- Assignments:
  - Presentation Instructions

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**Week 14 (Dec 1 - 8)**

- Monday - Presentations
- Wed - Presentations
- Fri - Presentations