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
- FreeNas NFS permissions

Assignments:
- Assignment
- Assignment

Week 3

Topics:

Notes:

Assignments:
Week 4

- Topics:
  - Clustering
  - High availability
- Readings:
  - PX 6
- Assignments:
  - Assignment

Week 4

- Virtual Machines
- Readings:
  - LVV Chapter 8
- My how-tos:
  - Create virtual machine using vcsa
  - Install VMware Tools Linux
- Slides
- Slides
- Assignment

Week 5

- Readings:
  - LVV Chapter 4
  - Networking concepts overview
  - vSphere Standard Switches
  - vSphere Distributed Switch Architecture
- My how-tos:
  - Create an eSXI port group and new vswitch video
  - Add a vm to a vSwitch
  - Create distributed switch video video2
  - Enable vmotion
- Assignment
- Assignment
- Slides

Week 6

- Readings:
  - Storage overview
  - DRS Settings
- Slides
- Slides
- Assignment

Week 7

- Slides
- Kahoot review
- Exam on VMware (Testing Center)
- Assignment

- Fall Break

Week 9
Topics:
- Readings:
  - LXC vs Docker
  - Slides
  - Docker
- Readings:
  - Chapter 1
- Assignment
- Assignment
- Assignment
- Slides
- Slides
- Slides

Week 10

- Topics:
  - More Docker
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Assignment

Week 11

- Test 2
- Topics:
  - Kubernetes
  - demo
- Readings:
  - K8S tutorial
  - Working with Kubernetes Objects
- Slides
- Slides
- Assignment
- Assignment

Week 12

- Topics:
  - Kubernetes on GCP
  - Kubernetes
- Slides
- Assignment

Week 13

- Topics:
  - More kubernetes
- Assignment

Thanksgiving

Week 14

- Topics:
  - More kubernetes
• K8s yml files
• virtualbox?

• Slides
• Assignment

**Week 15**

• Monday - catch up
• Wed - Practical (test4)
• Fri - Canvas (test4)

We will have presentations on the day of the final.