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
- Readings:
  - Dummies chapter 1,3
  - PX 1
  - Explained by vmware
- Slides:
  - Intro Slides
  - More Slides
- Notes:
- Assignments:
  - Assignment
  - Also begin project 2

Week 2

- Topics:
  - Virtualization with Proxmox
  - connect iso to proxmox
- Readings:
  - PX 2.3.1, 2.3.2, 3.8, 3.8.1
  - PX 5 (Explanation of the GUI) (review if needed)
- Slides:
- Notes:
- Assignments:
  - Assignment

Week 3

- Topics:
  - NFS and proxmox
- Notes:
  - NFS on Ubuntu How To
- Assignments:
  - Assignment

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
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
- 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.