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

Notes:
• Assignments:
  • Assignment

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**Week 4**

• Topics:
• Readings:
• Assignments:

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**Week 4**

• Virtual Machines
• Readings:
  • [LNV Chapter 8](#)
• My how-tos:
  • [Create virtual machine using vcsa](#)
  • [Install VMware Tools Linux](#)
• Slides
• Slides
• Assignment

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**Week 5**

• Readings:
  • [LNV Chapter 4](#)
  • [Networking concepts overview](#)
  • [vSphere Standard Switches](#)
  • [vSphere Distributed Switch Architecture](#)
• My how-tos:
  • [Create an esxi port group and new vswitch](#)
  • [Add a vm to a vSwitch](#)
  • [Create distributed switch](#)
  • [Enable vmotion](#)
• Assignment
• Assignment
• Slides

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**Week 6**

• Readings:
  • [Storage overview](#)
  • [DRS Settings](#)
• Slides
• Slides
• Assignment

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**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.