Cloud Computing und SaaS

Exercise – Virtualization

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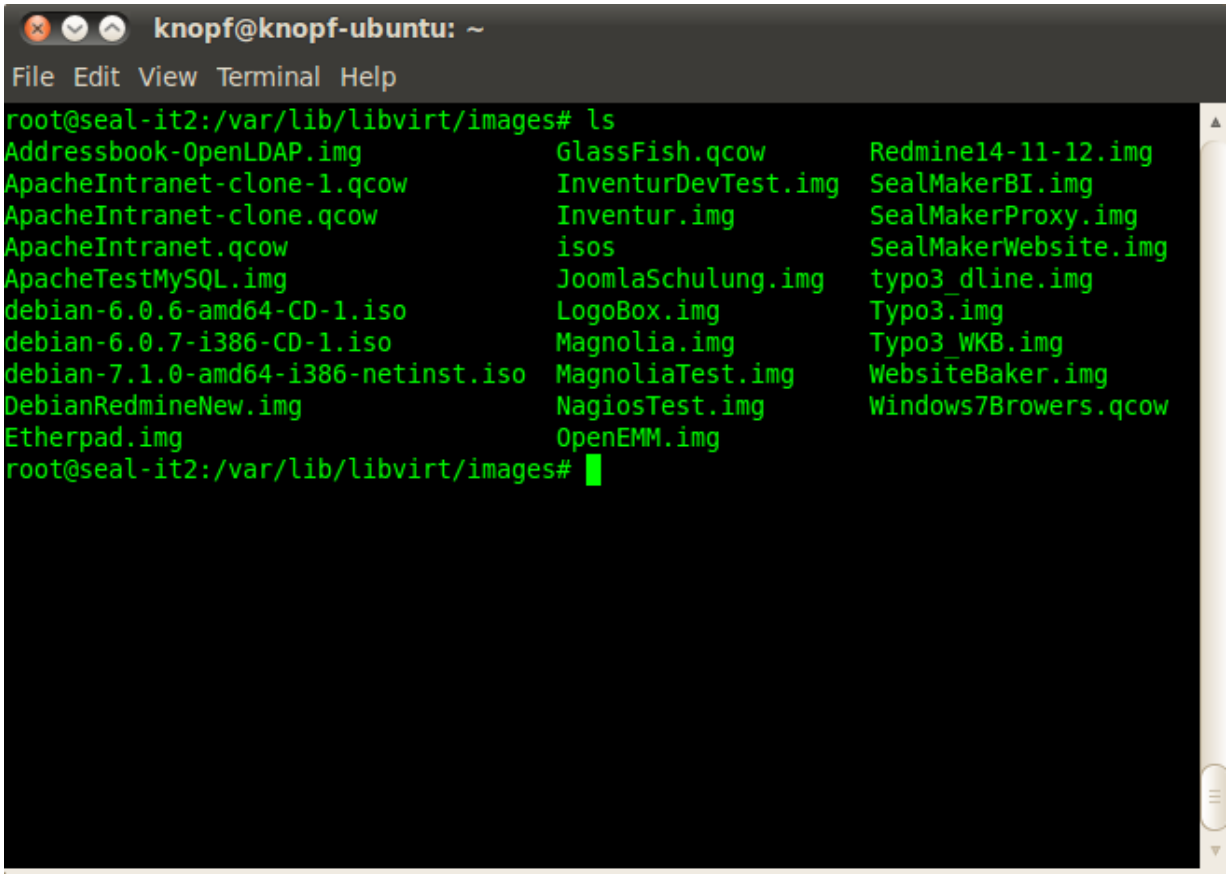
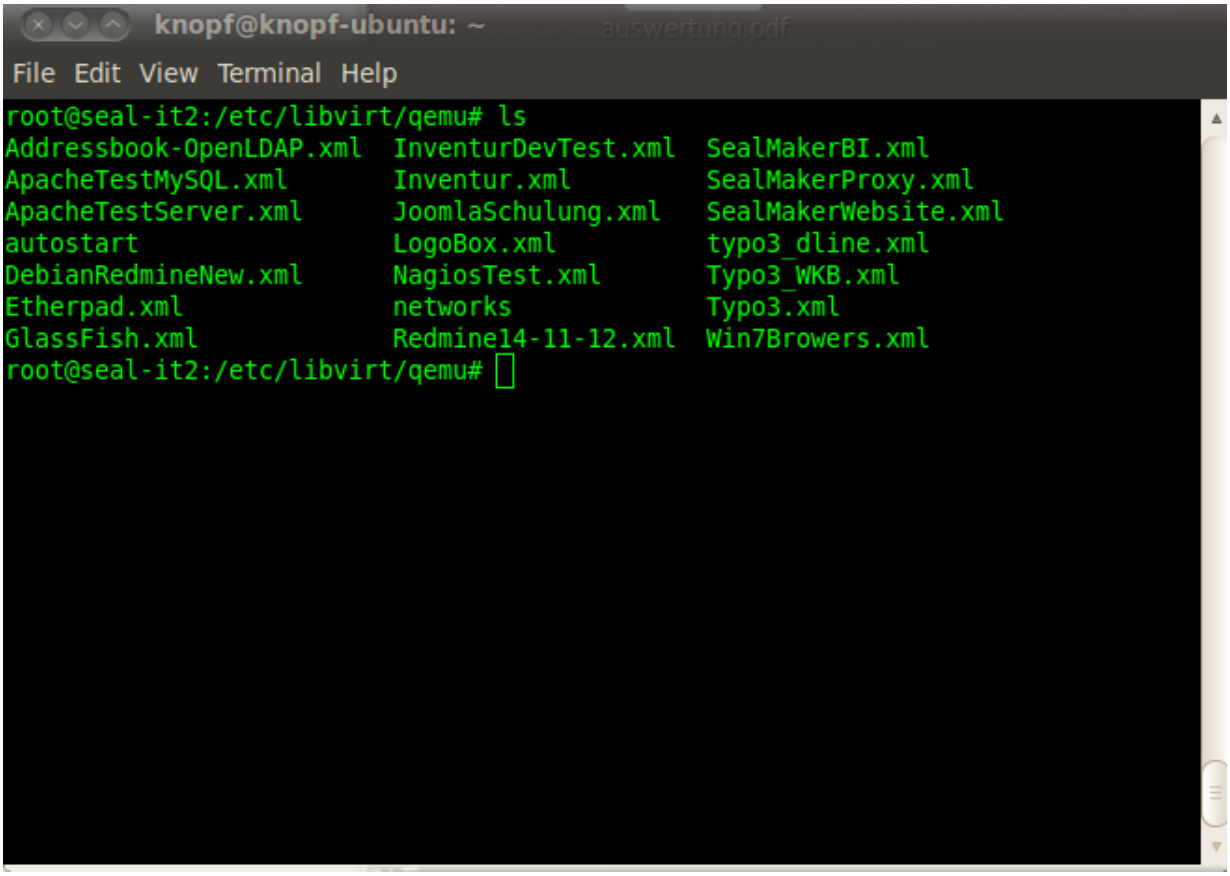
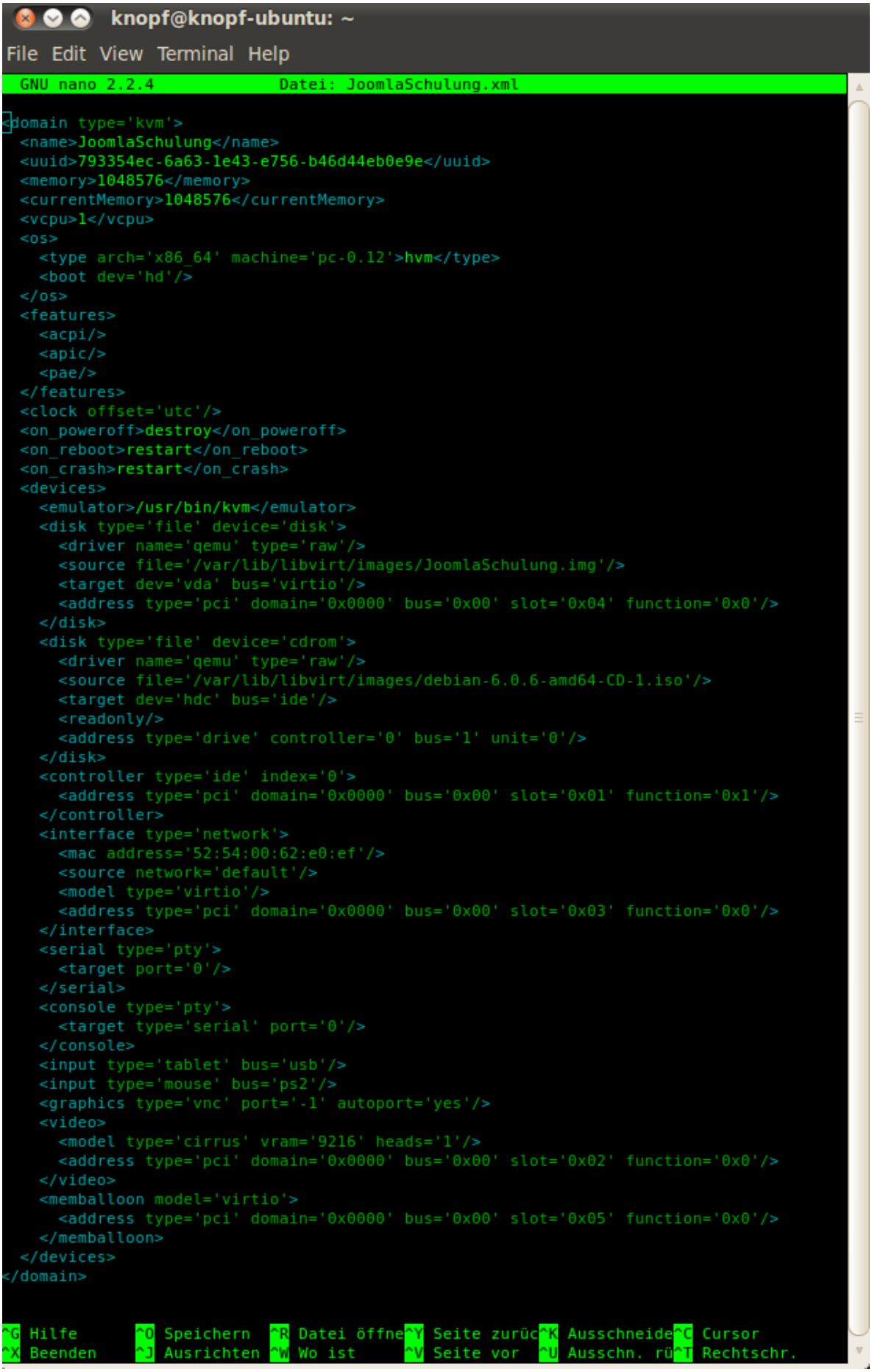
Where are the images stored?



Where are the XML descriptions of your images and how are they structured?

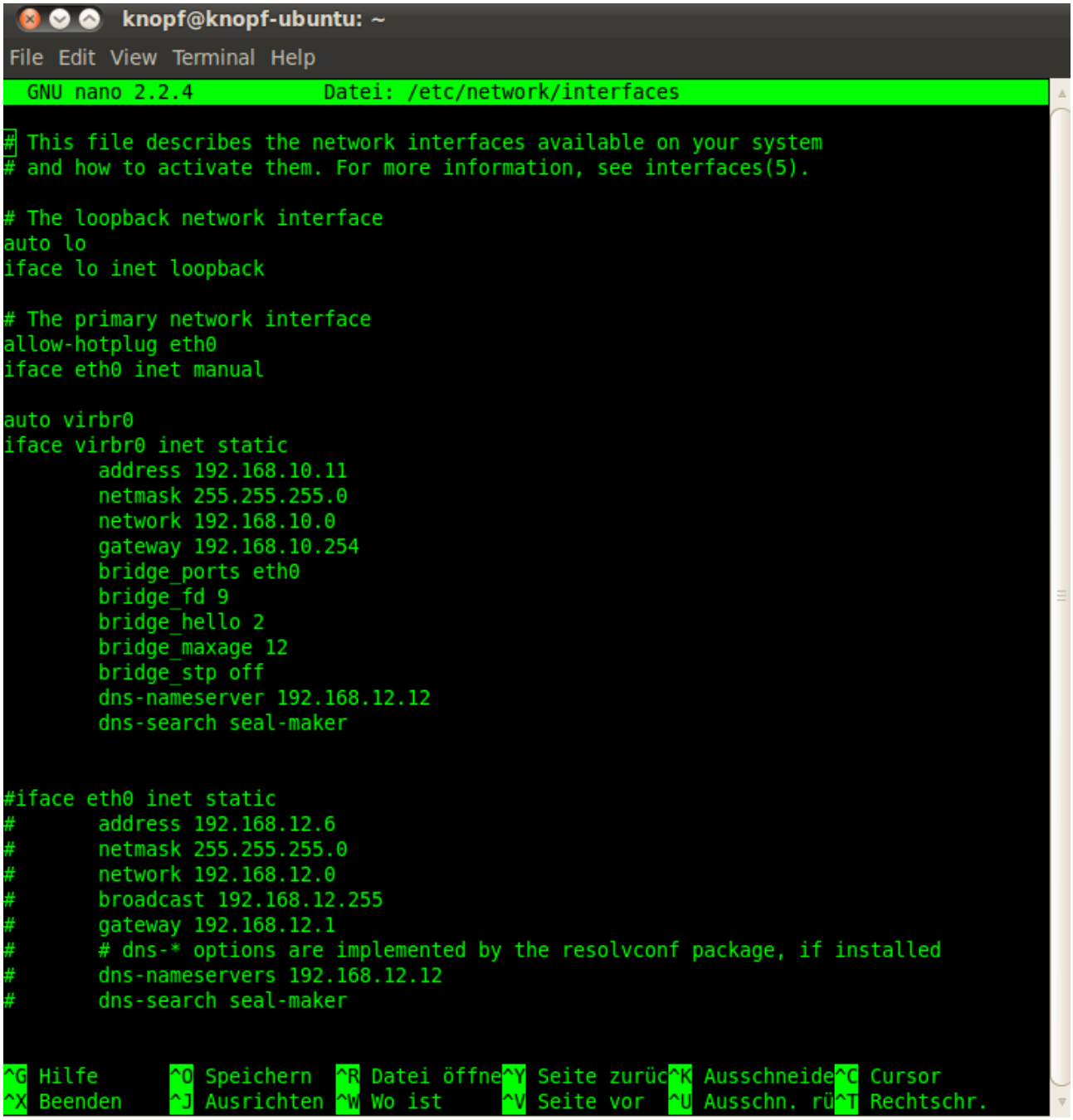



knopf@knopf-ubuntu: ~
File Edit View Terminal Help
GNU nano 2.2.4 Datei: JoomlaSchulung.xml
<domain type='kvm'>
<name>JoomlaSchulung</name>
<uuid>793354ec-6a63-1e43-e756-b46d44eb0e9e</uuid>
<memory>1048576</memory>
<currentMemory>1048576</currentMemory>
<vcpu>1</vcpu>
<os>
<type arch='x86_64' machine='pc-0.12'>hvm</type>
<boot dev='hd'/>
</os>
<features>
<acpi/>
<apic/>
<pae/>
</features>
<clock offset='utc'/>
<on_poweroff>destroy</on_poweroff>
<on_reboot>restart</on_reboot>
<on_crash>restart</on_crash>
<devices>
<emulator>/usr/bin/kvm</emulator>
<disk type='file' device='disk'>
<driver name='qemu' type='raw'/>
<source file='/var/lib/libvirt/images/JoomlaSchulung.img'/>
<target dev='vda' bus='virtio'/>
<address type='pci' domain='0x0000' bus='0x00' slot='0x04' function='0x0'/>
</disk>
<disk type='file' device='cdrom'>
<driver name='qemu' type='raw'/>
<source file='/var/lib/libvirt/images/debian-6.0.6-amd64-CD-1.iso'/>
<target dev='hdc' bus='ide'/>
<readonly/>
<address type='drive' controller='0' bus='1' unit='0'/>
</disk>
<controller type='ide' index='0'>
<address type='pci' domain='0x0000' bus='0x00' slot='0x01' function='0x1'/>
</controller>
<interface type='network'>
<mac address='52:54:00:62:e0:ef'/>
<source network='default'/>
<model type='virtio'/>
<address type='pci' domain='0x0000' bus='0x00' slot='0x03' function='0x0'/>
</interface>
<serial type='pty'>
<target port='0'/>
</serial>
<console type='pty'>
<target type='serial' port='0'/>
</console>
<input type='tablet' bus='usb'/>
<input type='mouse' bus='ps2'/>
<graphics type='vnc' port='-1' autoport='yes'/>
<video>
<model type='cirrus' vram='9216' heads='1'/>
<address type='pci' domain='0x0000' bus='0x00' slot='0x02' function='0x0'/>
</video>
<memballoon model='virtio'>
<address type='pci' domain='0x0000' bus='0x00' slot='0x05' function='0x0'/>
</memballoon>
</devices>
</domain>
^G Hilfe ^O Speichern ^R Datei öffne ^Y Seite zurüc ^K Ausschneide ^C Cursor
^X Beenden ^J Ausrichten ^W Wo ist ^V Seite vor ^U Ausschn. rü ^T Rechtschr.

What virsh commands do you need to configure and manage an image?

```
virsh
           list --all
           start name
           shutdown name
           destroy name
           suspend name
           resume name
```

Explain the type of network configuration you have chosen.



Durch 'bridge' sind auch die virtuellen Maschinen im Netzwerk erreichbar.

Drescribe the virtual machine migration capabilities of KVM.

Requirements

- The VM image is accessible on both source and destination hosts (located on a shared storage, e.g. using nfs).
- It is recommended an images-directory would be found on the same path on both hosts
- The src and dst hosts must be on the same subnet
- Do not use -snapshot qemu command line option.
- For tcp: migration protocol
- the guest on the destination must be started the same way it was started on the source.

- Almost unnoticeable guest down time
- Guest is not involved
- Capability to tunnel VM state through an external program
- ssh/gzip/bzip2/gpg/your own
- Upon success guest continues to run on destination host, upon failure guest continues to run on source host (with one exception)
- Short and Simple
- Easy to enhance
- Hardware independence (almost).
- Support for migration of stopped (paused) VMs.
- Open