

```

#!/bin/bash

LABNAME=${1}
NUMBER_OF_PARTICIPANTS=${2}
NUMBER_OF_VMS_PER_PARTICIPANT=${3}

SYSTEM_PREFIX=${LABNAME}
PROFILE=OracleDatabaseServer
NETMASK="255.255.255.0"
IPPUBSTART=200
IPPRIVSTART=1
BASEDIR="/var/www/html/${LABNAME}"
COBBLERSERVER="192.168.56.101"

_usage() {
    echo " "
    echo "*****"
    echo " Usage of this script                                     *"
    echo " $0 [LABNAME] [NUMBER_OF_PARTICIPANTS] [NUMBER_OF_VMS_PER_PARTICIPANT] *"
    echo "*****"
    echo " "
}

# some basic checks on the parameters
_do_checks() {
    if [ "${LABNAME}" == "" ]; then
        _usage
    fi
    if [ "${NUMBER_OF_PARTICIPANTS}" == "" ]; then
        _usage
    fi
    if [ "${NUMBER_OF_VMS_PER_PARTICIPANT}" == "" ]; then
        NUMBER_OF_VMS_PER_PARTICIPANT=2
    fi
}

# setup the lab
_setup_lab() {
    mkdir -p ${BASEDIR}
    for (( i=1; i <= ${NUMBER_OF_PARTICIPANTS}; i++ ))
    do
        VBSETUPSCRIPT="${BASEDIR}/setup_p_${i}.sh"
        rm -f ${VBSETUPSCRIPT}
        VMNAMES=
        echo "Creating ISOs and VM Setup Script for Participant $i"
        for (( e=1; e <= ${NUMBER_OF_VMS_PER_PARTICIPANT}; e++ ))
        do
            SYSTEM_NAME=${SYSTEM_PREFIX}_P_${i}_VM_${e}
            echo " creating VM ${e}, name ${SYSTEM_NAME}"
            cobbler system add --name=${SYSTEM_NAME} --profile=${PROFILE}
            cobbler system edit --name=${SYSTEM_NAME} --interface=eth0 \
                --ip-address=192.168.56.${IPPUBSTART} \
                --netmask=${NETMASK} \
                --hostname=${SYSTEM_NAME} \
                --static=1 --dns-name=${SYSTEM_NAME}.lab.ch
            cobbler system edit --name=${SYSTEM_NAME} --interface=eth1 \
                --ip-address=10.1.1.${IPPRIVSTART} \
                --netmask=${NETMASK} \
                --static=1
            cobbler buildiso --systems=${SYSTEM_NAME} \
                --iso="${BASEDIR}/${SYSTEM_NAME}.iso" 2>1 > /dev/null

            echo "VM_NAME=${SYSTEM_NAME}" >> ${VBSETUPSCRIPT}
            echo "VM_SHARED_DISKS=\${HOME}/Downloads/" >> ${VBSETUPSCRIPT}
            echo "VM_HOME=\${HOME}/Downloads/\${VM_NAME}" >> ${VBSETUPSCRIPT}
            echo "HD=\${VM_HOME}/hd_root.vdi" >> ${VBSETUPSCRIPT}
            echo "BOOTISONAME=${SYSTEM_NAME}.iso" >> ${VBSETUPSCRIPT}
            echo "BOOTISOURL=\"http://${COBBLERSERVER}/${LABNAME}/${BOOTISONAME}\" >> ${VBSETUPSCRIPT}
            echo "vboxmanage unregistervm \${VM_NAME} --delete >> /dev/null 2>&1" >> ${VBSETUPSCRIPT}
            echo "vboxmanage closemedium disk \${HD} --delete >> /dev/null 2>&1" >> ${VBSETUPSCRIPT}
            echo "rm -f \"\${VM_HOME}/*\" >> ${VBSETUPSCRIPT}
            echo "vboxmanage createvm --name \${VM_NAME} --register --ostype Oracle_64" >> $
        {VBSETUPSCRIPT}
            echo "vboxmanage modifyvm \${VM_NAME} --boot1 disk" >> ${VBSETUPSCRIPT}
            echo "vboxmanage modifyvm \${VM_NAME} --boot2 dvd" >> ${VBSETUPSCRIPT}
            echo "vboxmanage createhd --filename \"\${HD}\" --size 102400 --format VDI --variant Standard"
        >> ${VBSETUPSCRIPT}
            echo "vboxmanage storagectl \${VM_NAME} --name ctl1 --add sata" >> ${VBSETUPSCRIPT}
            echo "vboxmanage storageattach \${VM_NAME} --storagectl ctl1 --type hdd --medium \"\${HD}\"
        --port 1" >> ${VBSETUPSCRIPT}
    done
}

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echo "cd \"${VM_HOME}\"" >> ${VBSETUPSCRIPT}
echo "rm -f \"${BOOTISONAME}\"" >> ${VBSETUPSCRIPT}
echo "wget \"${BOOTISOURL}\"" >> ${VBSETUPSCRIPT}
echo "vboxmanage storagectl \"${VM_NAME}\" --name ctl2 --add id" >> ${VBSETUPSCRIPT}
echo "vboxmanage storageattach \"${VM_NAME}\" --storagectl ctl2 --type dvddrive --port 1 --device
1 --medium \"\"${VM_HOME}/${BOOTISONAME}\"" >> ${VBSETUPSCRIPT}
echo "vboxmanage modifyvm \"${VM_NAME}\" --memory 2048 --cpus 1 --nic1 hostonly --cableconnected1
on --hostonlyadapter1 vboxnet0 \
--nic2 intnet --cableconnected2 on" >> ${VBSETUPSCRIPT}
echo "vboxmanage modifyvm \"${VM_NAME}\" --audio none" >> ${VBSETUPSCRIPT}
echo "vboxmanage modifyvm \"${VM_NAME}\" --usb off" >> ${VBSETUPSCRIPT}
let IPPUBSTART=IPUBSTART+1
let IPPRIVSTART=IPPRIVSTART+1
done
# creating shared storage devices
if [ ${NUMBER_OF_VMS_PER_PARTICIPANT} -gt 1 ]; then
echo "CRSDISK=\"${VM_SHARED_DISKS}/crs.vdi\"" >> ${VBSETUPSCRIPT}
echo "ASMDATA=\"${VM_SHARED_DISKS}/asmdata.vdi\"" >> ${VBSETUPSCRIPT}
echo "ASMARCH=\"${VM_SHARED_DISKS}/asmarch.vdi\"" >> ${VBSETUPSCRIPT}
echo "vboxmanage closemedium disk \"${CRSDISK}\" --delete >> /dev/null 2>&1" >> ${VBSETUPSCRIPT}
echo "vboxmanage closemedium disk \"${ASMDATA}\" --delete >> /dev/null 2>&1" >> ${VBSETUPSCRIPT}
echo "vboxmanage closemedium disk \"${ASMARCH}\" --delete >> /dev/null 2>&1" >> ${VBSETUPSCRIPT}
echo "vboxmanage createhd --filename \"${CRSDISK}\" --size 5000 --variant Fix" >> $
{VBSETUPSCRIPT}
echo "vboxmanage createhd --filename \"${ASMDATA}\" --size 5000 --variant Fix" >> $
{VBSETUPSCRIPT}
echo "vboxmanage createhd --filename \"${ASMARCH}\" --size 5000 --variant Fix" >> $
{VBSETUPSCRIPT}
VMNAMES=`ls ${BASEDIR} | grep iso | grep "P_${i}" | awk -F "." '{print $1}'`
for x in ${VMNAMES}
do
echo "vboxmanage storagectl ${x} --name ctl3 --add scsi">> ${VBSETUPSCRIPT}
echo "vboxmanage storageattach ${x} --storagectl ctl3 --type hdd --medium \"\"${CRSDISK}\""
--port 1 --mtype shareable" >> ${VBSETUPSCRIPT}
echo "vboxmanage storageattach ${x} --storagectl ctl3 --type hdd --medium \"\"${ASMARCH}\""
--port 2 --mtype shareable" >> ${VBSETUPSCRIPT}
echo "vboxmanage storageattach ${x} --storagectl ctl3 --type hdd --medium \"\"${ASMDATA}\""
--port 3 --mtype shareable" >> ${VBSETUPSCRIPT}
done
fi
done
cobbler sync 2>1 > /dev/null
}

_do_checks
_setup_lab
cobbler system list

```