Installations

Obtaining CentOS Installation Media

- Download files from URL
  - Curl
  - wget

- Download DVD ISO from mirrors
  - Contains stable versions of rpms
  - https://centos.org/download

- Download latest Stream ISO from mirrors
  - Contains latest rpms
  - https://centos.org/download
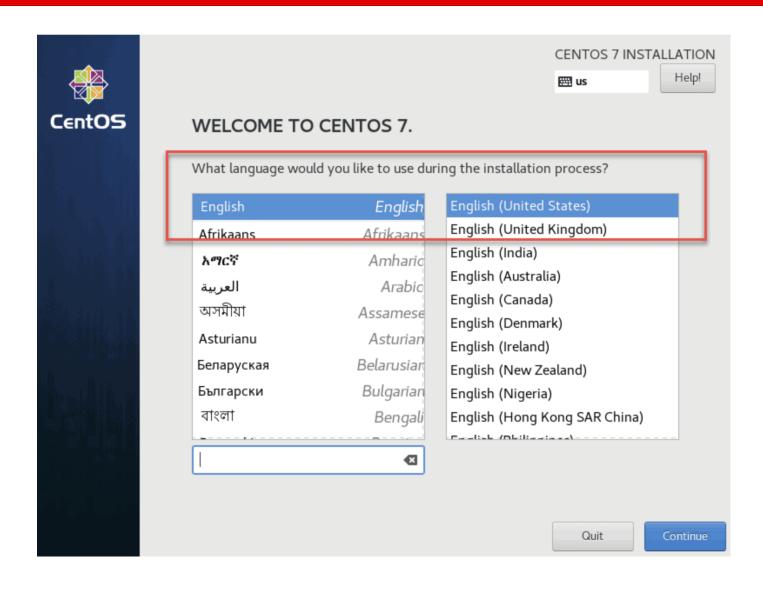
Writing ISO Installation Image to USB Drive

- From Windows
  - Download any disk creator

- From Mac OS
  - Download any disk creator
  - Or use of DD command

- From any other Linuxes
  - Use DD command

- Make sure PC / Server can boot from USB drive

Installing CentOS

- Dual Boot

- Via Virtualization software
  - Vmware Workstation
  - Vmware Vsphere
  - Oracle VirtualBox
  - OpenKVM
  - Microsoft VirtualPC / HyperV
  - QEMU

- Docker Containerization

The Installation screen

The installation screen

- Language & Locale selection
- Country / Regional settings
- Time zone
- Date & Time
- Keyboard layout
- Kernel Dumps
- Network configuration

- Software Packages
- Security Policies
- Partitioning
  - LVM
  - LVM Thin Provisioning
  - RAID
  - Type of File System
  - Mount point (Folder)
- User Settings

Type of File Systems

Type	Remarks	Size
Ext2	First default FS	16GB – 2TB
Ext3	Ext2 + journaling (improvised reliability)	16GB – 2TB
Ext4	Scalability, multiblock allocation, delayed allocation, fast FSCK	16GB – 16TB
XFS	High speed JFS Parallel IO processing	>300+ TB – 8 EB
BTRFS	Focus on Fault Tolerance, large storage configuration. Lots of feature still under development	Upto 16 EB

Post Installations Configuration

- Collect system information

- Configure repository

- Install Updates

- Install more packages

Collect system information

- Verify OS release and versions
  - cat /etc/*release
- Verify kernel version
  - uname -a
- Check hostname
  - hostname
- Collect cpu, memory information
  - cat /proc/meminfo
  - cat /proc/cpuinfo

- Verify File system creation
  - df –k
  - mount
- Verify processes
  - ps –ef
  - top

Configure repository

- Point to Centos yum repository

- Point to Fedora Core

- Point to local storage (DVD)

- Point to remote storage (NFS / CIFS)

Point to Centos yum repository

- CentOS installation pre-configured some yum repository

- Install Extra Packages repo from Fedora Core
  - dnf install –y https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm

- All repo configuration in
  - /etc/yum.repos.d/ sub directory
  - Must ends with .repo extension

Example of centos-baseos.repo

```
[BaseOS]
name=CentOS-$releasever - Base
mirrorlist=http://mirrorlist.centos.org/?release=$releasever&arch=$basearch&repo=BaseOS&infra=$infra
#baseurl=http://mirror.centos.org/$contentdir/$releasever/BaseOS/$basearch/os/
gpgcheck=1
enabled=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-centosofficial
```

Quiz

1. What are the methods to install CentOS? (Choose all that applies)
   a) Floppy drive
   b) ISO
   c) Thumb drive
   d) repository

Quiz

1. What are the methods to install CentOS? (Choose all that applies)
   a) Floppy drive
   b) ISO
   c) Thumb drive
   d) repository

Quiz

2. What should you perform after done OS installation?

    a)   Configure more networking functionality

    b)   Download and install more packages from the net

    c)   Look for bugs

    d)   Collect system information

Quiz

2. What should you perform after done OS installation?

    a)   Configure more networking functionality

    b)   Download and install more packages from the net

    c)   Look for bugs

    d)   Collect system information

Quiz

3. Why ext4 is better version?
   a) Has stronger encryption capability
   b) Has fast FSCK
   c) Has biggest capacities than XFS
   d) Has journaling capability

Quiz

3. Which are available file system type in Linuxes? (Choose two)

   a) Jfs
   b) Xfs
   c) Ext3
   d) NTFS
   e) FAT32

Quiz

3. Which are available file system type in Linuxes? (Choose two)
   a) Jfs
   b) Xfs
   c) Ext3
   d) NTFS
   e) FAT32

Checkpoint

1. What are the methods to install CentOS? (Choose all that applies)
   a) Floppy drive
   b) ISO
   c) Thumb drive
   d) repository

2. What should you perform after done OS installation?
   a) Configure more networking functionality
   b) Download and install more packages from the net
   c) Look for bugs
   d) Collect system information

3. Why ext4 is better version?
   a) Has stronger encryption capability
   b) Has fast FSCK
   c) Has biggest capacities than XFS
   d) Has journaling capability