

# CENG 2034

# Operating Systems

## lab 6

[https://github.com/caesarsalad/ceng2034\\_os\\_labs](https://github.com/caesarsalad/ceng2034_os_labs)





# System Boot

BIOS	Basic Input/Output System executes MBR
MBR	Master Boot Record executes GRUB
GRUB	Grand Unified Bootloader executes Kernel <a href="http://thegeekstuff.com">thegeekstuff.com</a>
Kernel	Kernel executes /sbin/init
Init	Init executes runlevel programs
Runlevel	Runlevel programs are executed from /etc/rc.d/rc*.d/

# Reading MBR in Linux

```
# dd if=/dev/hda of=mbr.bin bs=512 count=1
```

```
# od -xa mbr.bin
```

Structure of a generic MBR			
Offsets within sector		Length (in bytes)	Description
Dec	Hex		
000 - 445	000 - 1BD	446	Bootstrap Code Area
446 - 509	1BE - 1FD	64	Partition Table
510 - 511	1FE - 1FF	2	Boot Record Signature