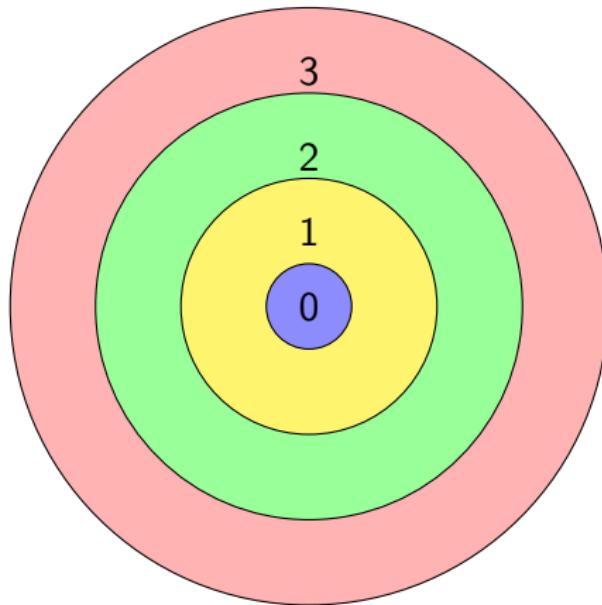


SCS1312 Operating System Concepts

Dr. Chamath Keppitiyagama

University of Colombo School of Computing

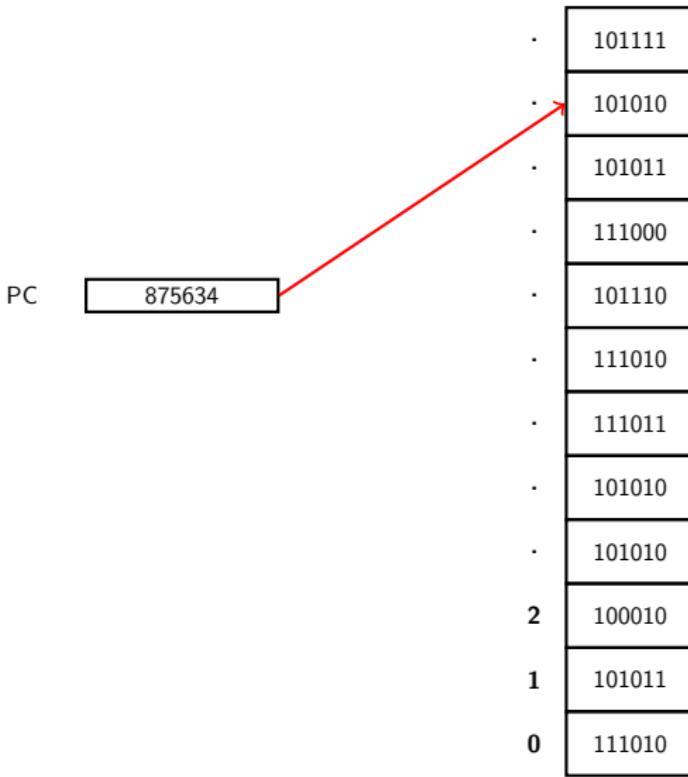
x86 Rings



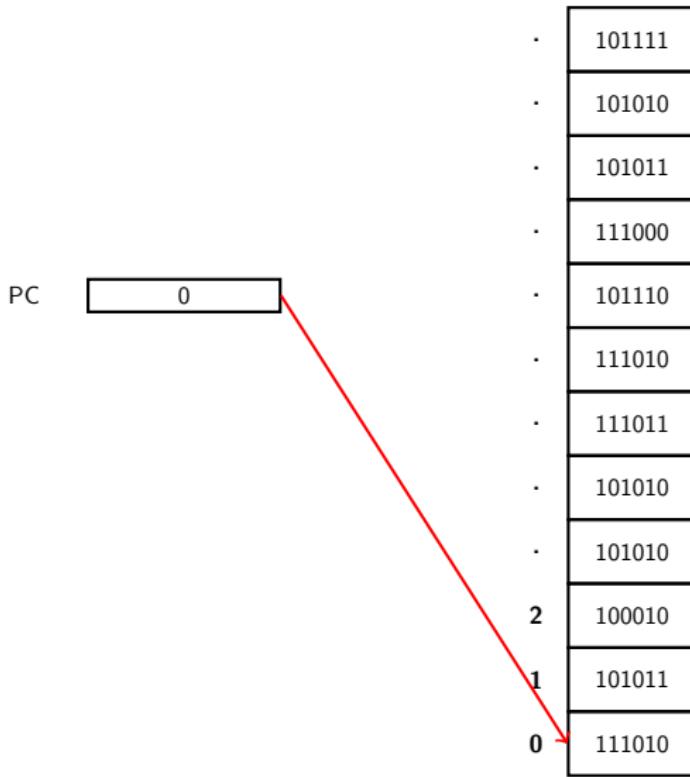
At the Beginning . . .

	101111
	101010
	101011
	111000
	101110
	111010
	111011
	101010
2	101010
1	100010
1	101011
0	111010

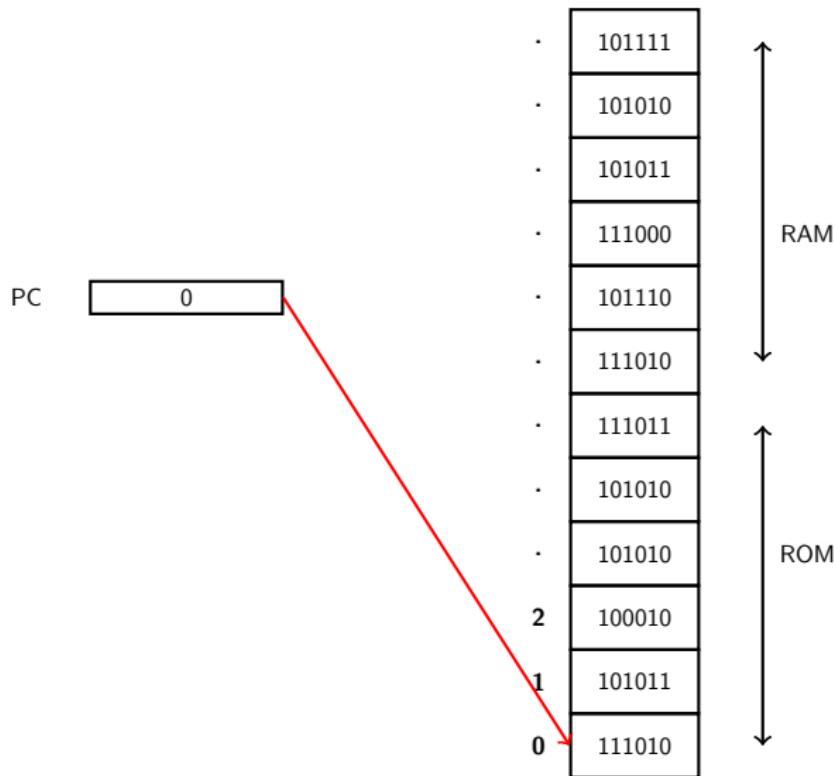
PC ??



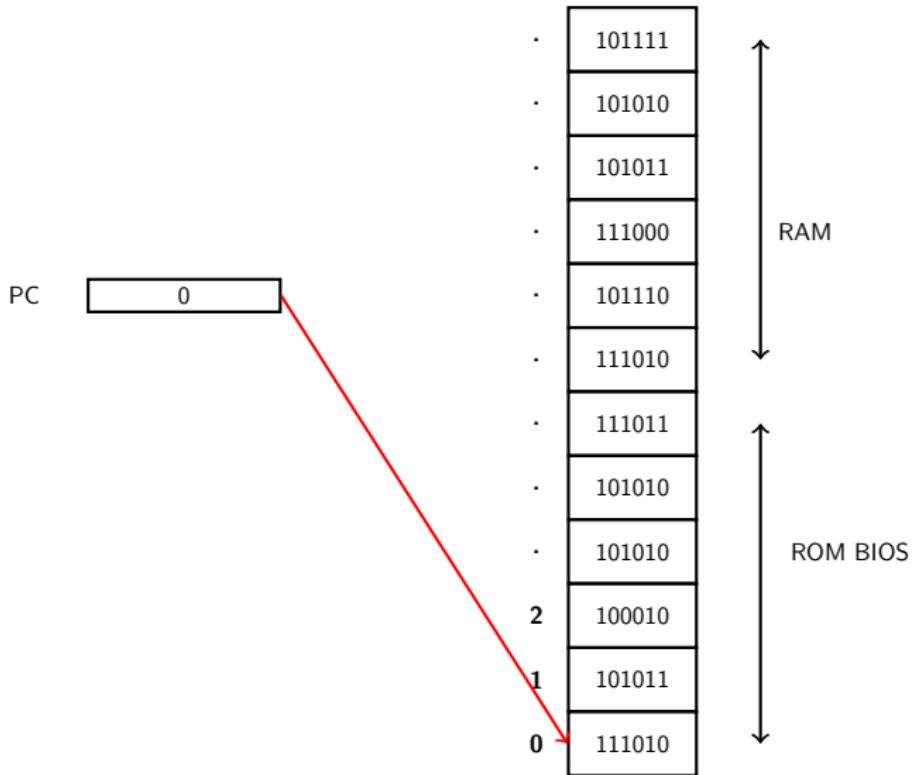
Hard Coded PC



Hard Coded PC



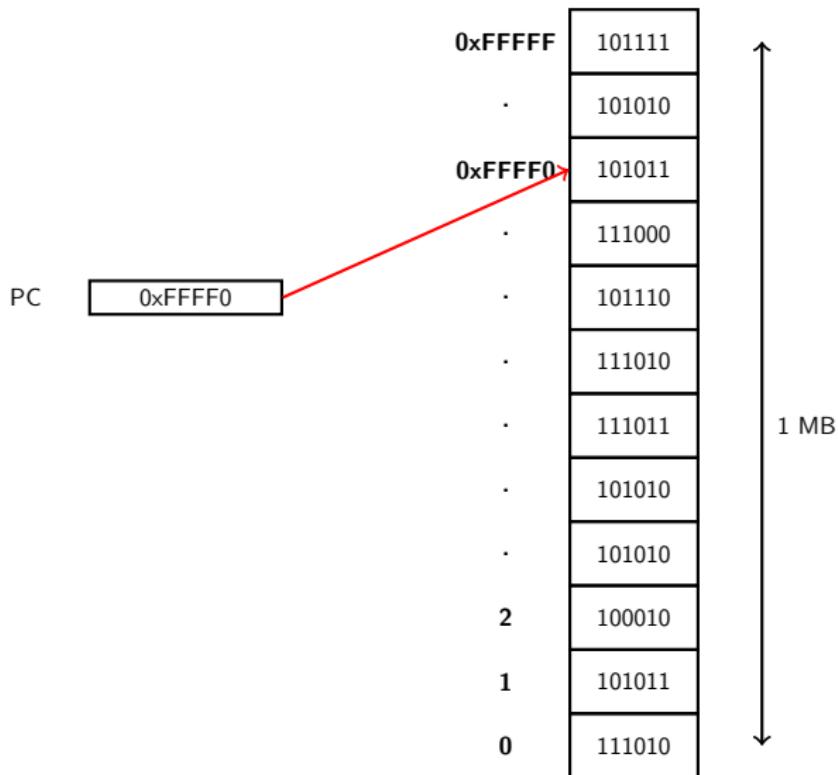
Basic Input Output System - BIOS

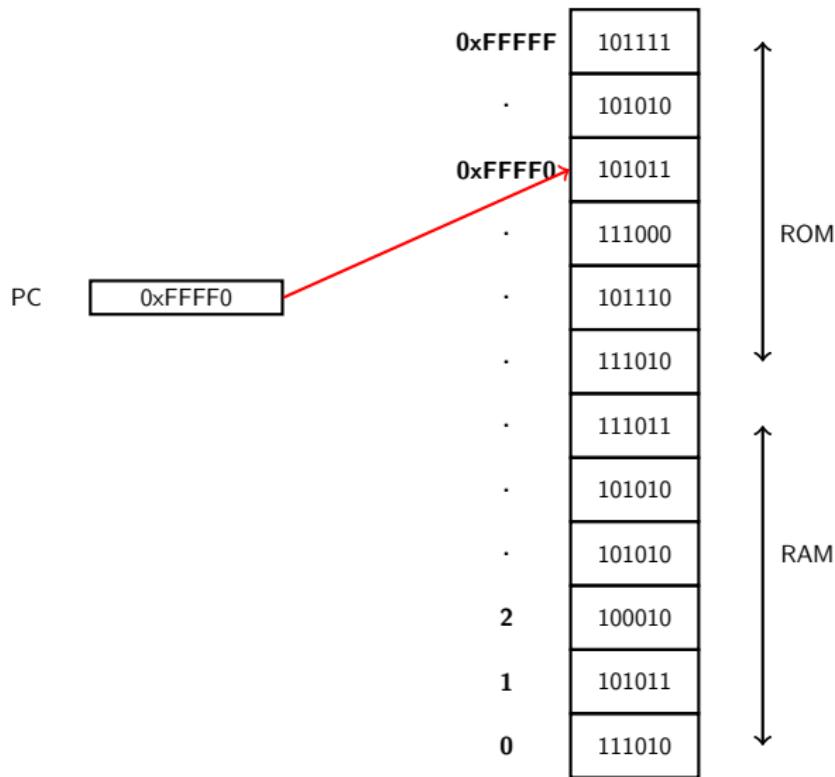


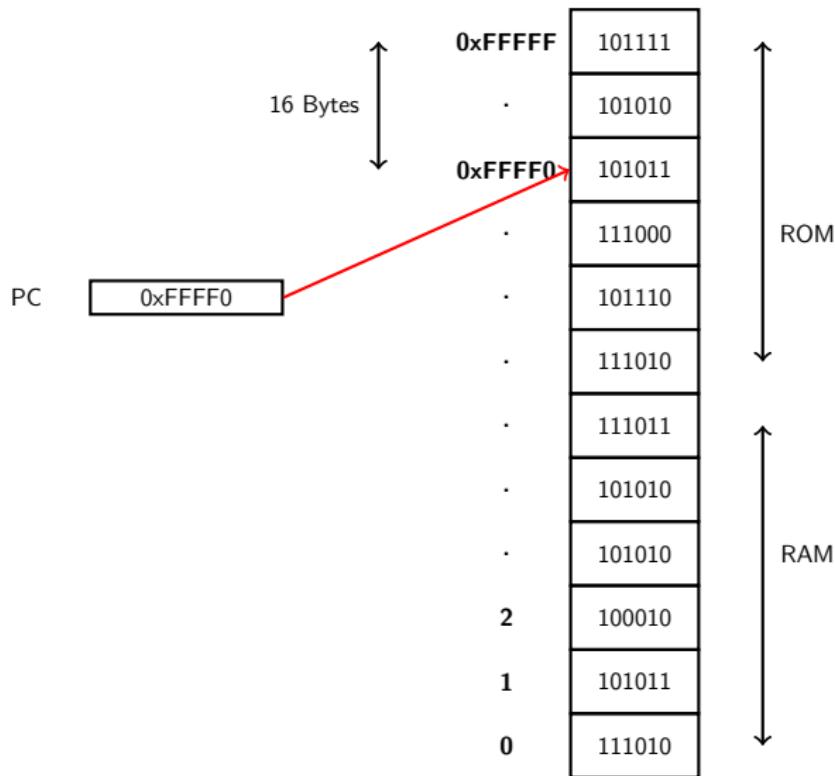
Quiz

Write the following value (decimal) as a hexadecimal number.

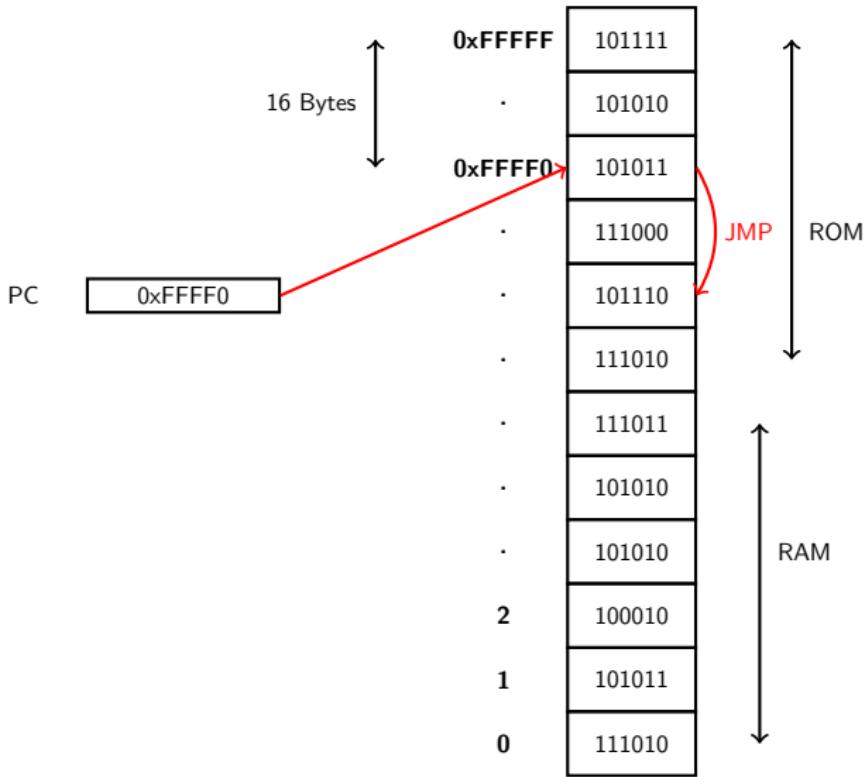
$$2^{20} - 1$$





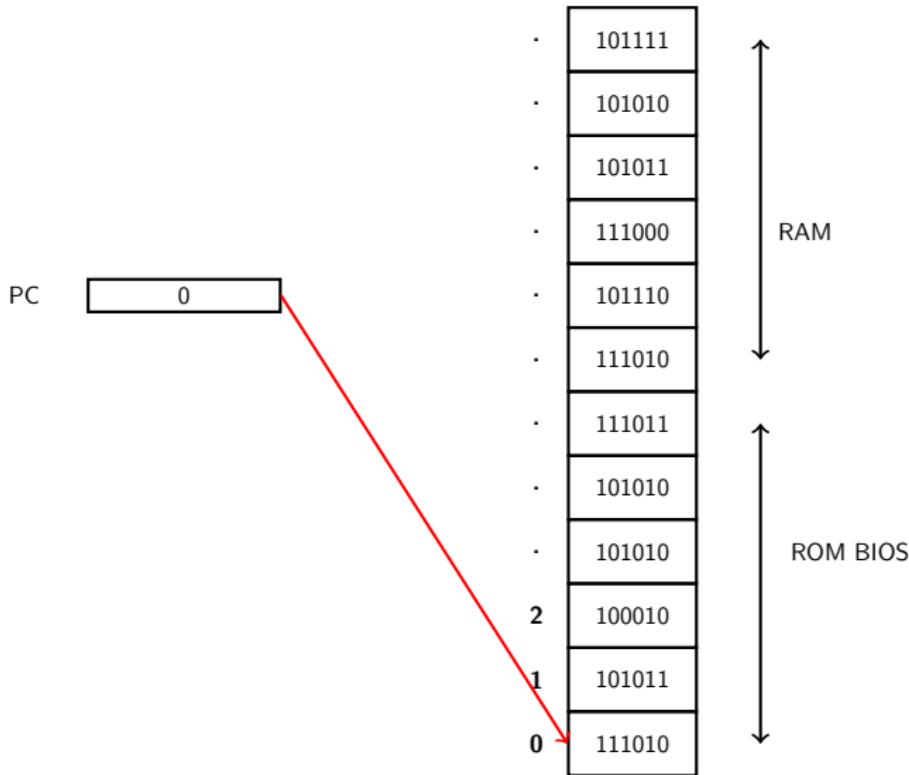


x86

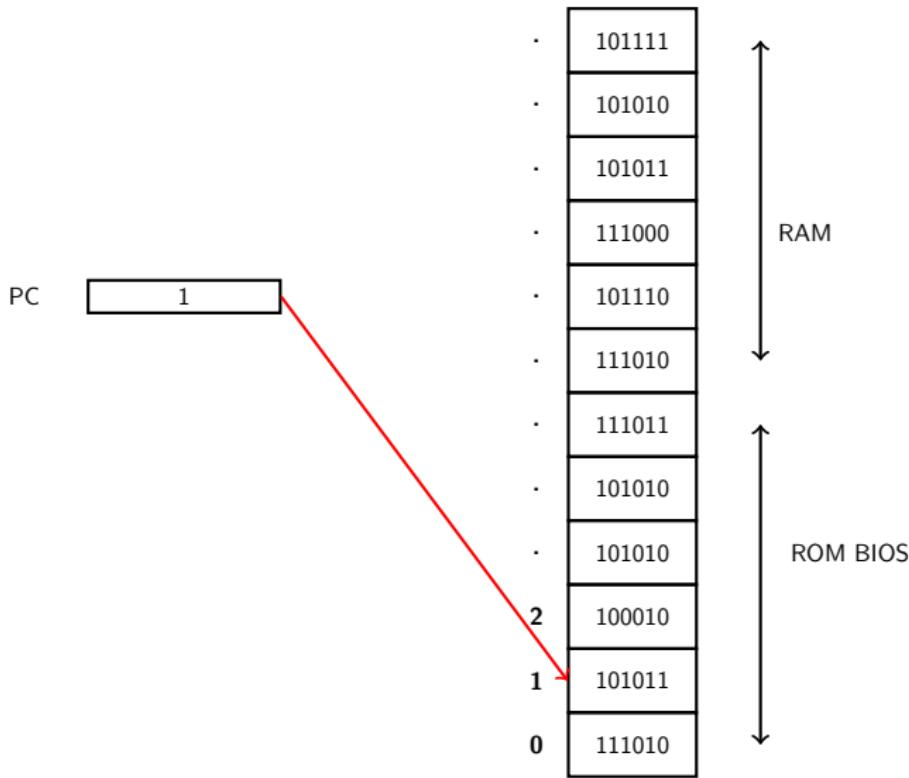


```
sudo cat /proc/iomem | grep ROM
```

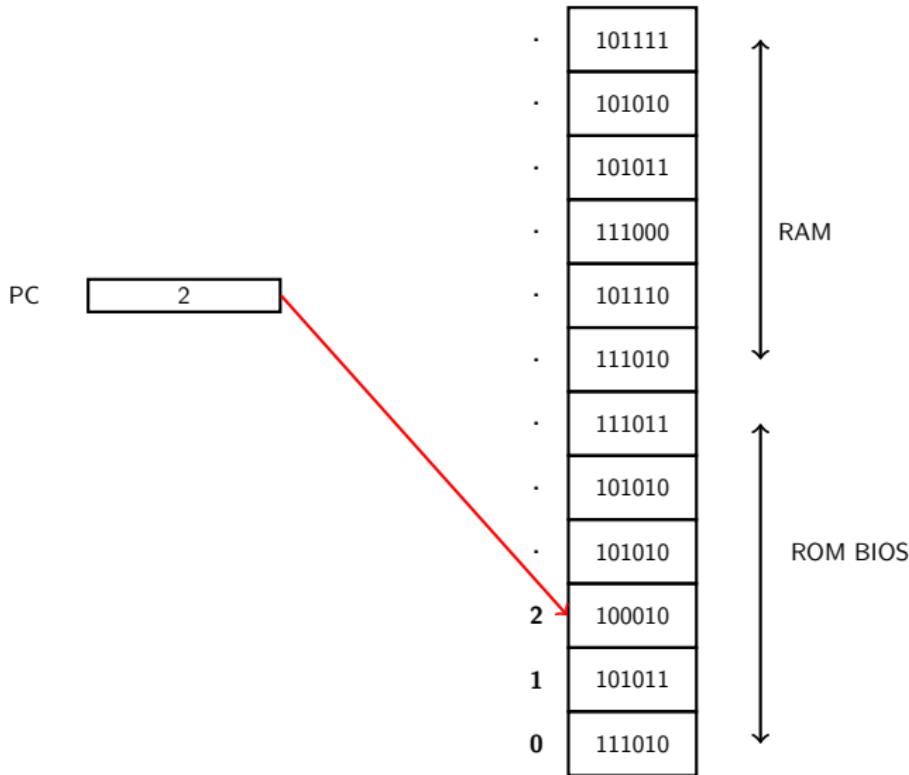
Basic Input Output System - BIOS



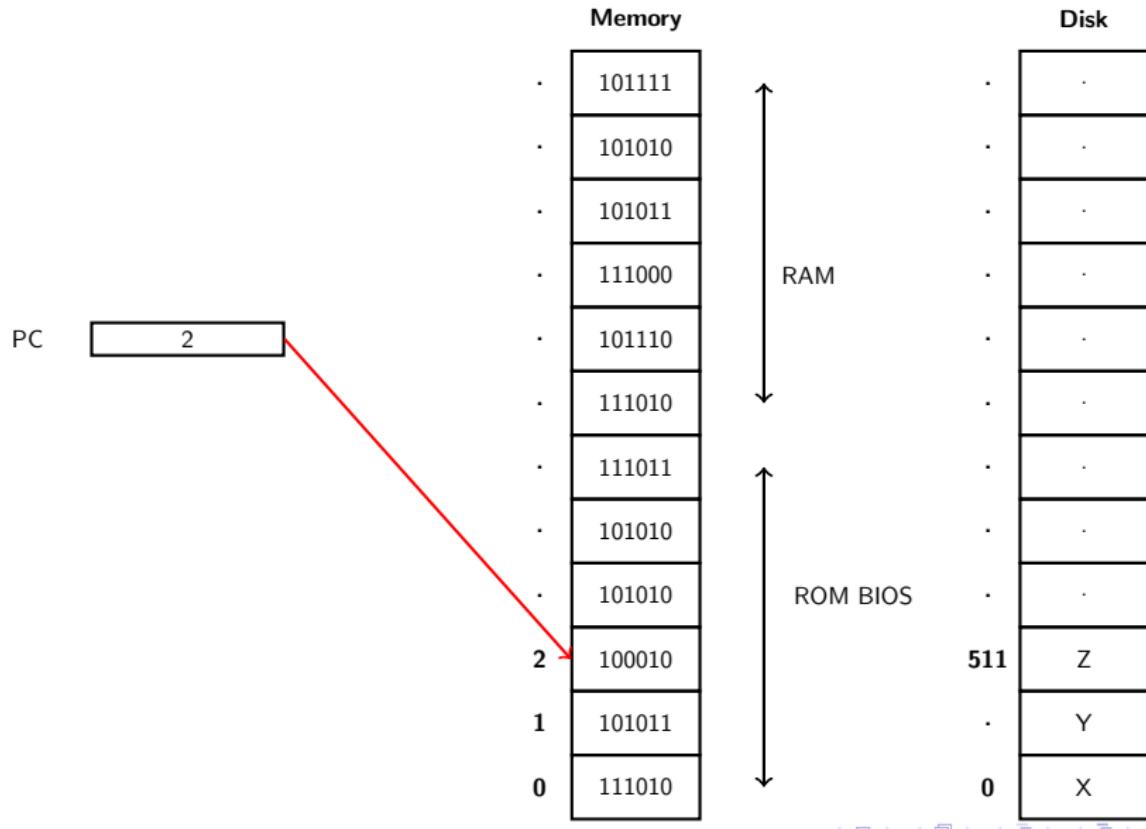
Basic Input Output System - BIOS



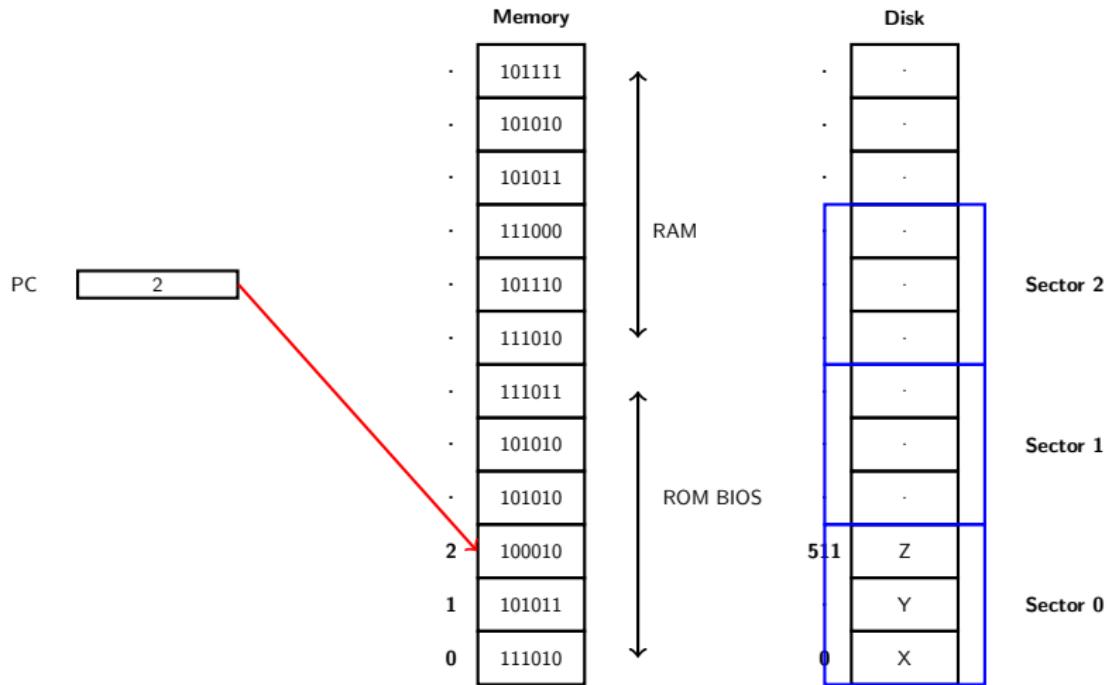
Basic Input Output System - BIOS



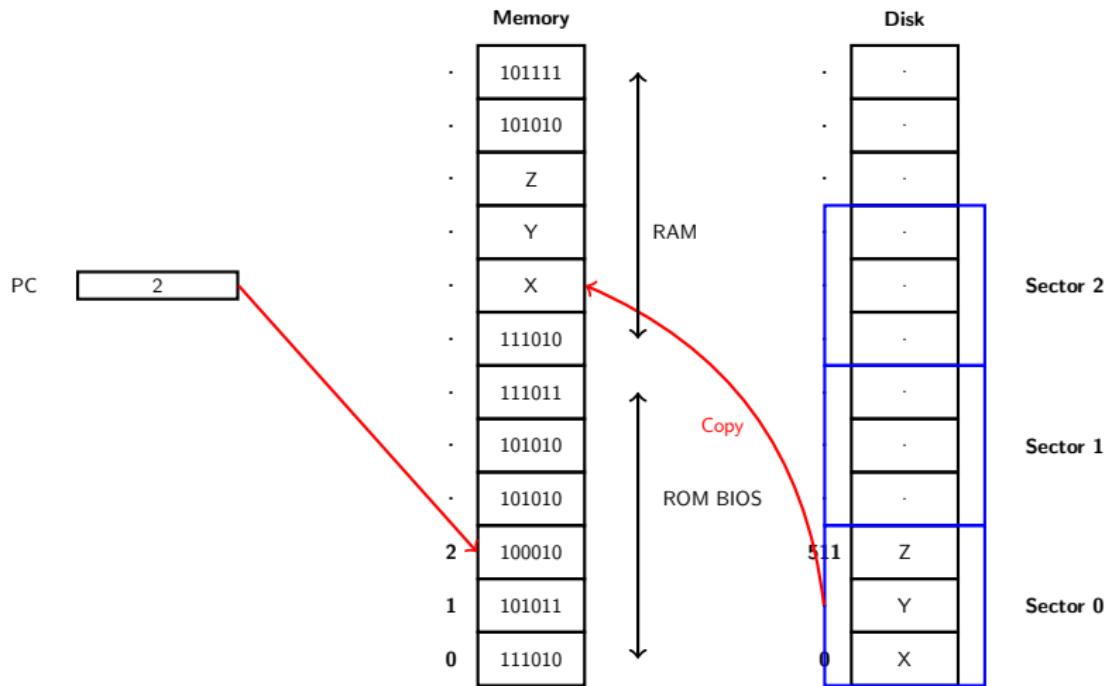
Basic Input Output System - BIOS



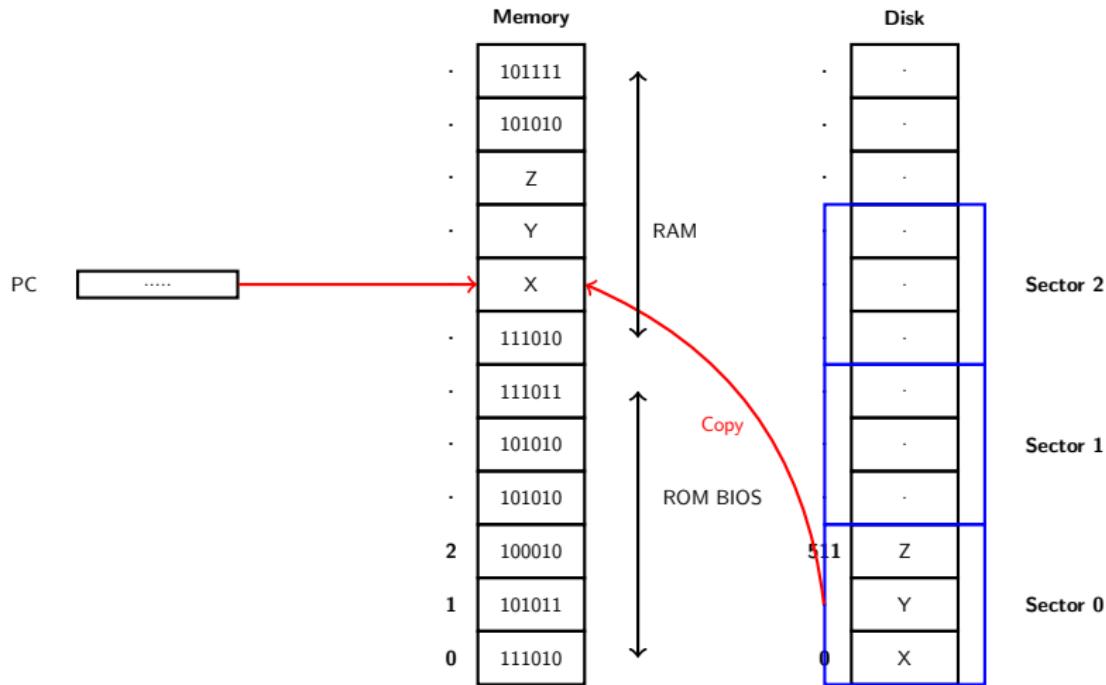
Basic Input Output System - BIOS



Basic Input Output System - BIOS



Basic Input Output System - BIOS



Master Boot Record

