Change Kernel Runtime Parameters, Persistent and Non-persistent

Kernel Runtime Parameters  
Kernel runtime parameters are just a fancy term for what are basically settings for how the Linux kernel does its job internally.

**Kernel**: An operating system (OS) kernel is the core component of an operating system that manages the system's resources and facilitates communication between hardware and software. It acts as an intermediary, ensuring that different parts of the system work together smoothly.

$: sysctl –a = This command will show the runtime parameters currently in use.  
Use sudo to see the ones that say permission denied.  
Regarding the output:  
Everything starting with “net” is a network related parameter.  
Memory related stuff will start with VM. As in virtual memory file system settings.  
File system settings in the Linux kernel start with “fs.”  
  
To change a kernel parameter’s value (on/off) you can use the –w command:  
  
$: sudo sysctl –w net.ipv6.conf.default.disable\_ipv6 = 0 --> change the 0 to 1 to make true and disable this parameter.  
When you change it this way, it is non persistent, so rebooting will change the param value back.

To check the value of a parameter:  
$: sudo sysctl net.ipv6.conf.default.disable\_ipv6

How would I make a change persistent?

I could add a .conf file to the /etc/sysctl.d/ directory