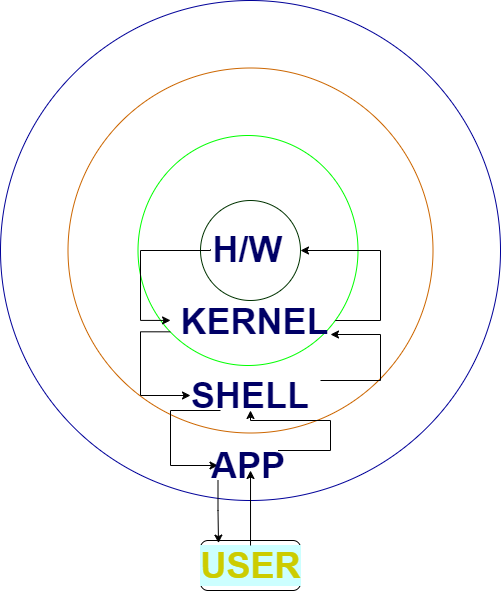
**Architecture Of Linux OS**

Linux architecture consist of inner most Hardware layer, kernel, shell, and

outer application layer.



**1) Application Layer:**

* Users interact with the system through varies applications such as office, games, etc.
* These applications run in outer layer of architecture.

**2) Shell:**

* Shell provides environment to run any application.
* It provides interface to the user to interact with hardware, and act as command interpreter.
* It converts high level language into computer level language (binary language).
* Shell can be of:

Graphical Shell

Command line Shell

* Examples: k shell, bash shell, sh shell, etc.

**3) Kernel:**

* Kernel is core component of Linux architecture.
* It manages hardware’s (CPU, Memory, Storage and devices).
* It controls process management, memory management and device management.
* It tracks all active processes running on systems.
* In Linux, we use Monolithic kernel.

**4) Hardware:**

* All the hardware components such as motherboard, CPU, hard disk, etc. are comes under

this layer.

**Monolithic kernel vs microlithic kernel**

**Monolithic Kernel**

* It manages system's resources between system applications and system hardware.
* which are required for system applications are already installed.
* Large in size and provides high execution speed.
* All prerequisites are already installed required to install new packages.
* It offers memory management, file management and process scheduling.

**Microlithic kernel**

* In microlithic kernel, only required dependencies are pre-installed.
* lightweight in size
* Application software’s running on microlithic architecture have ability to install its own dependencies by itself.
* It is slow in execution.