Operating Systems act as fundamentals to the basic computer systems in today’s world. An OS is the communication between the software you use and the hardware that lies underneath. Every electronic signal talks with your operating system to understand the work it has to do or the way it has to behave to get the user’s work done. In this paper, we discuss about basic operating systems, get an overview of the internal processes associated with an operating system and understand its connection with the kernel and the hardware. We then move on to Virtualization by introducing Vagrant, an operating system virtualization software that allows you to run virtual machines on your system and configure them the way you want to suit your needs, and discuss about virtualization on cloud.

References

- MA Harrison 1976. Protection in Operating Systems
- J Ousterhout 1990. Why aren’t operating systems getting faster as fast as hardware.
- P Barham 2003. Xen and the art of virtualization
- JY Hwang 2008. Xen on ARM: System virtualization using Xen hypervisor for ARM-based secure mobile phones
- M Hashimoto 2013. Vagrant: Up and Running

**Index Terms**

Computer Science  Operating Systems

**Keywords**

Operating System  Virtualization  Cloud  Vagrant