

IT8711 FOSS AND CLOUD COMPUTING LABORATORY L T P C

0 0 4 2

OBJECTIVES:

1. To learn and develop applications using gcc and make
2. To learn and use version control systems
3. To develop web applications in cloud
4. To learn the design and development process involved in creating a cloud based application
5. To learn to implement and use parallel programming using Hadoop
6. Use gcc to compile c-programs. Split the programs to different modules and create an application using make command.
7. Use version control systems command to clone, commit, push, fetch, pull, checkout, reset, and delete repositories.
8. Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of windows7 or 8.
9. Install a C compiler in the virtual machine created using virtual box and execute Simple Programs
10. Install Google App Engine. Create hello world app and other simple web applications using python/java.
11. Use GAE launcher to launch the web applications.
12. Simulate a cloud scenario using CloudSim and run a scheduling algorithm that is not present in CloudSim.
13. Find a procedure to transfer the files from one virtual machine to another virtual machine.
14. Find a procedure to launch virtual machine using trystack (Online Openstack Demo Version)
15. Install Hadoop single node cluster and run simple applications like wordcount.

TOTAL: 60 PERIODS

OUTCOMES:

On completion of this course, the students will be able to:

- ✓ Configure various virtualization tools such as Virtual Box, VMware workstation.
- ✓ Design and deploy a web application in a PaaS environment.
- ✓ Learn how to simulate a cloud environment to implement new schedulers.
- ✓ Install and use a generic cloud environment that can be used as a private cloud.
- ✓ Manipulate large data sets in a parallel environment.