CS633: Parallel Computing

Aditya Rohan(160053)

Assignment 0

Installation Steps and Issues:

1. Download mpich-3.2.1 tar file
2. tar xfz mpich-3.2.1.tar.gz
3. mkdir install directory
4. *./configure --disable-fortran -prefix=/home/light/6th-Sem/CS633/mpich_install |& tee c.txt*
    a. **--disable-fortran** : flag for disabling the need for Fortran compiler since I'm not going to code in fortran
5. *make 2>&1 | tee m.txt*
6. *make install |& tee mi.txt*
7. Use this command to check the local installation: *mpiexec -n 4 ./examples/cpi*
8. This completes the actual execution and we can now compress the install directory and the actual mpich-3.2.1 directory and copy them to one of the lab machines.
9. SSH into one of the machines and set up Passwordless-SSH with another machine on the cluster, this will automatically set it up with all machines in the cluster.
    a. Easiest way to enable passwordless-ssh
    b. Don't put passphrase on your ssh-keys when you generate them afresh.
10. *export PATH=/users/misc/raditya/6th-Sem/CS633/mpich_install/bin:$PATH*

----------INSTALLATION COMPLETED----------

Case No.	Command	Execution Time
Case 1	mpiexec -n 4 -f hostfile ./examples/cpi	0.000243
Case 2	mpiexec -n 8 -f hostfile ./examples/cpi	0.003671
Case 3	mpiexec -n 16 -f hostfile ./examples/cpi	0.006382
Case 4	mpiexec -n 32 -f hostfile ./examples/cpi	0.006246

Table 1

Sr. No.	Node IP	Number of Processes
1	172.27.19.2	4
2	172.27.19.3	4
3	172.27.19.4	4
4	172.27.19.7	4
5	172.27.19.10	4
6	172.27.19.11	4
7	172.27.19.12	4
8	172.27.19.13	4

Table 2: hostfile