Evaluation of Sequential vs MPI threading

```
mpiuser@SIT315-Head:~/Cloud$ g++ -o main.exe VectorAdd.cpp
mpiuser@SIT315-Head:~/Cloud$ main.exe
main.exe: command not found
mpiuser@SIT315-Head:~/Cloud$ ./main.exe
Time taken by function: 2573919 microseconds
```

For sequential program and size = 100,000,000 we are getting 2573919ms

```
mpiuser@SIT315-Head:~/Cloud$ mpicxx VectorAddMPI.cpp
mpiuser@SIT315-Head:~/Cloud$ mpirun -np 4 ./a.out
Time taken by function: 633137 microseconds and the total sum is 655035716
```

For MPI program and size = 100,000,000 distributed in 4 nodes, we are getting 633137ms

```
mpiuser@SIT315-Head:~/Cloud$ mpicxx VectorAddMPI.cpp
mpiuser@SIT315-Head:~/Cloud$ mpirun -np 8 ./a.out
Time taken by function: 11127234 microseconds and the total sum is 655416433
```

For MPI program and size = 100,000,000 distributed in 8 nodes, we are getting 11127234ms

As it seems, increasing the nodes worsens the time taken.

```
mpiuser@SIT315-Head:~/Cloud$ mpicxx VectorAddMPI.cpp
mpiuser@SIT315-Head:~/Cloud$ mpirun -np 4 -hostfile ./cluster ./a.out
Time taken by function: 4235392 microseconds and the total sum is 654866536
mpiuser@SIT315-Head:~/Cloud$
```

Distributing the nodes in an actual cluster of computers including the Head and Node.