Lab7 – MPI(p2p)(2)

e.g.1 Run the following MPI program on different servers

```
#include <stdio.h>
#include "mpi.h"

main(int argc, char* argv[])
{
    char processor_name[80];
    int pid, name_len;

    MPI_Init(&argc, &argv);
    MPI_Comm_rank(MPI_COMM_WORLD, &pid);

    MPI_Get_processor_name(processor_name, &name_len);
    printf("%s, rank %d₩n", processor_name, pid);

    MPI_Finalize();
}
```

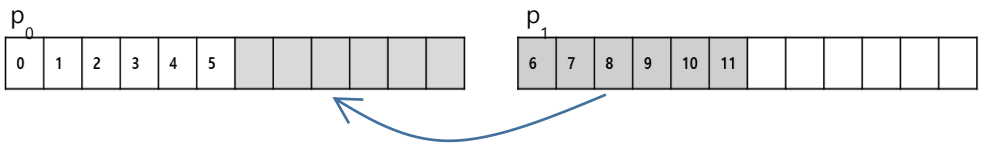
Use the following command to run the program on different servers(hpclab, hpa, hpb).

mpiexec –machinefile mf –n 10 *prog*

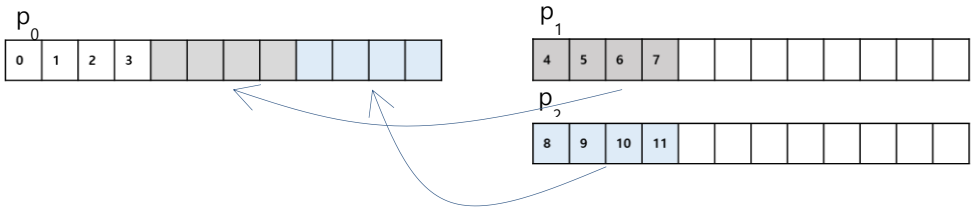
mf:
```
hpa:2
hpb:3
hpclab:5
```

e.g.2 Design a MPI program(explained in the lecture to collapse arrays onto an array on p_0.

(a) Collapse two arrays (mpiexec –n 2 *prog*)



(b) Collapse three arrays (mpiexec –n 3 *prog*)



(c) Collapse n arrays (mpiexec –n #procs *prog*)

Using deferent numbers of processes(1,2,3,4,6 or 12), your program prints same outputs.

Submit your program(collapse.c) when you are done.