

### 1 Exercise 1

Write a parallel MPI program that computes the maximum of elements in an array. The process 0 initializes the array with random numbers.

- The array is distributed using MPI\_Scatter.
- Each process computes a local max.
- Results are collected by process 0 using MPI\_Gather.
- Process 0 computes and displays the global max.

### 2 Exercise 2

Re-Write the parallel program that computes the max of elements in an array by using MPI\_Reduce.