

TD1 : SOME OPERATIONS ON TABLES IN PARALLEL

With threads in C++11, we have to implement some operations on tables :

- To fill an array of random numbers
- To find the minimum value of a table
- To implement an insertion sort in two steps :
 - To sort parts of the table simultaneously
(the number of parts is equal to the number of available cores)
 - To sort the complete table via the merge (of the merge sort)
- To implement a class "barrier" providing a thread-coordination mechanism that allows a set of participating threads to block until an operation is completed
- To use this class to realize an insertion sort searching for the minimum value in parallel at each step of the algorithm