**Exercice N°1**

In this exercise, we have to modify the code so that we could get the execution time of the function ResizeRGB().

What we have done is add the open MP library so that we could use the function omp\_get\_wtime(); we did not implement this inside of a parallel region because we only need it execution once, the code implemented is as follow :

**Exercise N°2**

In this exercise, we had to modify the code of ResizeRGB so that it would work in parallel, since it have 3 calls to the function resize2D(), we decided to implement “Sections”, the only variable that can cause a problem is “aux” since it is allocated dynamically, what we had to do to avoid any problem was creating the variable outside of the parallel region and allocating the memory space for each thread inside a parallel region that contained the sections, the implemented code is as follows :

**Exercise N°3**

**Exercise N°4**

**Exercise N°5 :**

In this exercise, we tried all the exercises with a window of 100, in different number of nodes (2,4,8,16,32🡪 core limit), measured the execution time in the kahan cluster thanks to the code below in an .sh extension:

\*\*All results are in the joined xlsx file\*\*

**Exercice N°6**

**Exercice N°7**