

Arrays Exercise

In the provided [serial program](#), we defined an array using c language. Add code to:

- fill the array by users' values or random values.
- search a *val* in the array (*val* entered by the user). It prints a message if it exists, another message otherwise.
- count the number of occurrences of a *val* in the array (*val* entered by the user).
- calculate the multiplication of all even numbers in the array.
- compare two arrays. It displays a message if they are identical, another message otherwise.
- calculate the average of the values in the array.
- search the maximum of the values in the array by two ways.
- Displays the array' element values.

Parallelize the code using OpenMP directives and give the time of processing in serial and parallel code (vary the number of the threads).