

Student activities depend on the purpose and level of the course. Here are some options.

1. The students are provided all the code and the data files (along with others the instructor makes) and the assignment is to develop timing plots for various size problems (could use the product of the number of text and pattern characters) and the number of threads to observe where it becomes effective to use the parallel approach.
2. The students are provided all the code and are asked to write a function to fill the table by columns and compare its performance with the function that fills the table by rows.
3. The students are provided the code for the main function, both of the serial table filling functions and the matching function. The assignment is to make the serial diagonal version parallel by adding OpenMP directives. Note, there are several sections of code in the main function that can (and should) be made parallel.
4. A more advanced option is to provide the students with the code for the main function and have them write the three table filling functions.