Parallel and Distributed Computing

Project Proposal

Sorting Tabular Rows Exhibiting OpenMP VS Sequential

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Introduction:

The OpenMP API supports multi-platform shared-memory parallel programming in C/C++ and Fortran. The OpenMP API defines a portable, scalable model with a simple and flexible interface for developing parallel applications on platforms from the desktop to the supercomputer.

Contrary to that sequential programming runs your code line by line, in a default control structure. This approach might take more time then parallel programming as the resources are not shared in sequential programming.

In this project we will be sorting tabular data parallel through OpenMP and sequentially. Then the difference would be presented through graphical analysis on the basis of time consumption by both the methods.

Parallel Counterpart of the Project:

As we all have used Excel spreadsheets once in our lifetime, we might have used a feature which sorts all the rows on the basis of any given column. For e.g. there is a student database, so whenever you sort the table on the basis of name, all the rows are sorted rather than just the name column as all the data is connected to each other.
Our approach is to do such a thing with parallel programming to achieve the results in less time.