COL 380 (Parallel and Distributed Programming)
Assignment 1

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A Task Graph

Task graphs are used for scheduling tasks on shared memory parallel processors when the tasks have dependencies. If the program's task graph is known ahead of time, then the tasks can be statically and optimally allocated to the processors. If the tasks and task dependencies are not known ahead of time (the case in some sparse matrix algorithms), then task scheduling must be performed dynamically.

For our Task graph as generated by using the inout depend clause in pragma task,
For each multiplication of the ans block indexed i,j (say O[i][j]), it can be seen that it depends on pairwise multiplication of input blocks A[i][k] and A[k][j].
And the similar graphs for pairwise multiplication of two blocks.